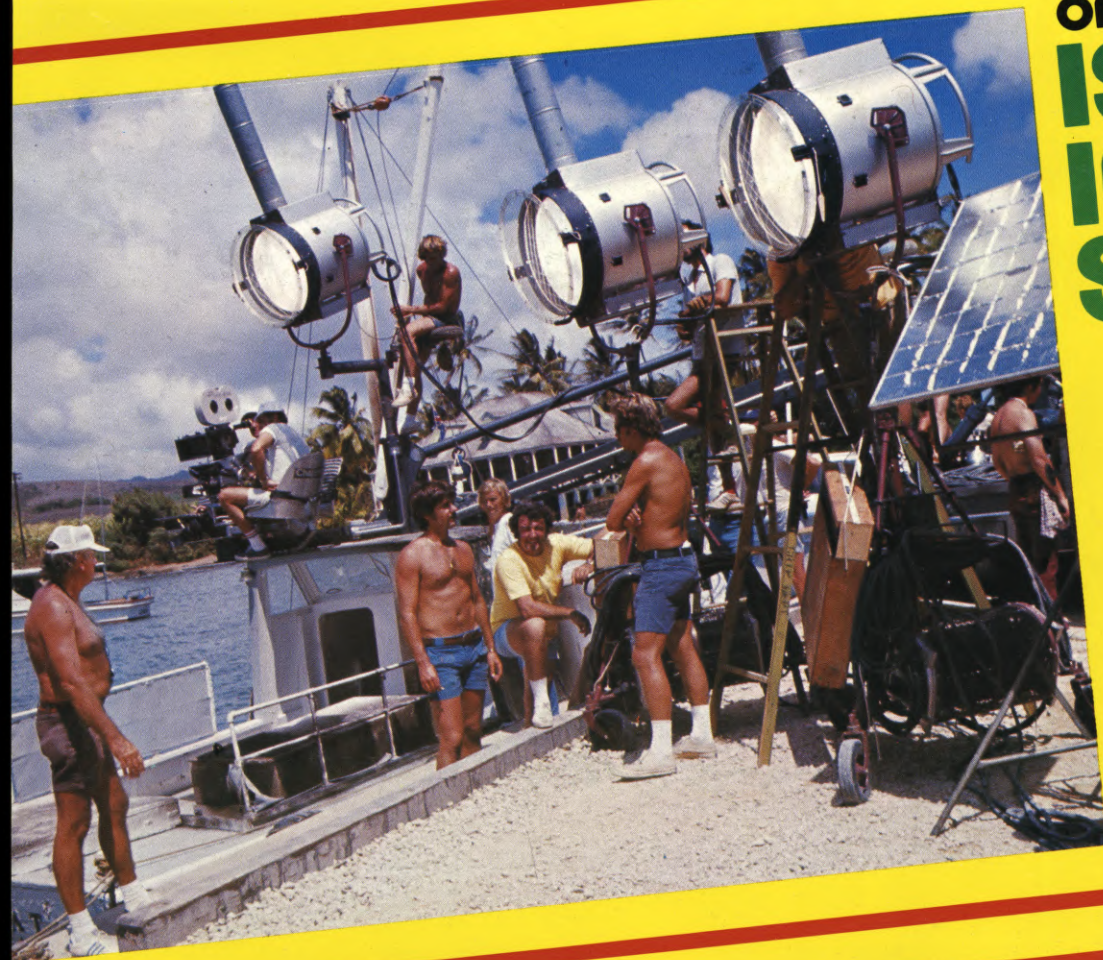


# American Cinematographer

International Journal of Motion Picture Photography and Production Techniques

NOVEMBER 1976 / ONE DOLLAR

ON LOCATION WITH  
**ISLANDS  
IN THE  
STREAM**





# Handling 7247 color negative in the film lab is easy If you know how



COMPUTER TECHNOLOGY

PLUS PROFESSIONALS

MAKES 7247 WORK

**DU ART**  
FILM LABORATORIES, INC.

Du Art Film Building  
245 West 55th Street  
New York, N.Y. 10019  
(212) PL7-4580



# TO IMPROVE NEW YORK FILMMAKING, YOU'VE GOT TO HAVE 'VISION.

**Panavision.** Once you've said it, you've said it all in 35mm. Cameras. Lenses. Systems. The works.

Starting with the new ultra-versatile, self blimped Panaflex.<sup>®</sup>A camera so advanced, it's a generation ahead of its time. A camera so light and natural to use, you'll have trouble remembering it's a "35," and it's studio silent!

Or PSR: the world's most wanted studio camera that has set a new standard in professional filmmaking for silence, reliability and versatility.

Like Panavision<sup>®</sup> cameras, Panavision lenses have rapidly become the industry's standard, their quality and versatility is world famous with exotic new additions appearing regularly.

Let us show you more about Panavision. As the exclusive East Coast Panavision distributor, we invite you to visit our camera department and see why so many motion picture credits say: "filmed in Panavision."



**gc general camera corporation**  
471 Eleventh Avenue, New York, N.Y. 10018 (212) 594-8700





10-150mm, T2.3, close focusing to 2 feet in a package less than seven inches long. Now available in mounts for Arriflex, Cinema Products, Eclair and other professional 16mm cameras.

**angénieux** corporation of america

1500 OCEAN AVE., BOHEMIA, N.Y. 11716 • (516) 567-1800  
13381 BEACH AVE., VENICE, CALIF. 90291 • (213) 821-5080



# 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.*

NOVEMBER 1976

VOL. 57, NO. 11

**Herb A. Lightman**  
editor

**Three Tyler**  
editorial assistant

**Barry Day**  
production control

**Pat Hopper**  
advertising

**Barbara Prevedel**  
accounting

**Gabrielle de Ganges**  
layout assembly

**Patty Caughlin**  
research

**Contributing Editors**  
David Samuelson  
Sidney B. Solow  
Anton Wilson

## Editorial Advisory Committee

Lee Garmes, Chairman  
Lloyd Ahern  
Charles Clarke  
Stanley Cortez  
Linwood Dunn  
George Folsey  
William Fraker  
Conrad Hall  
Sol Halprin  
Winton Hoch  
Milton Krasner  
Ernest Laszlo  
William Margulies  
Richard Moore  
Joseph Ruttenberg

## Editorial—Advertising— Business Offices

1782 North Orange Drive  
Hollywood, Calif. 90028  
(213) 876-5080

## • FEATURE ARTICLES

- 1220 On Location with "ISLANDS IN THE STREAM"
- 1224 A Cameraman's Diary on Photographing "ISLANDS IN THE STREAM"
- 1228 Re-creating the World of Ernest Hemingway
- 1232 The Impossible Takes a Little Longer
- 1234 Field Maintenance for Your Motion Picture Camera Equipment
- 1238 An American Film Institute Seminar with Stanley Cortez, ASC
- 1250 The Film vs. Video Myth Exploded
- 1252 Multi-surface Images in a Film About Space-age Education
- 1254 "OFF THE EDGE" in New Zealand
- 1284 Creating Unique Visual Effects for "OPTIONS"

## • DEPARTMENTS

- 1194 What's New
- 1198 Questions & Answers
- 1202 Cinema Workshop
- 1206 The Bookshelf

ON THE COVER: On the island of Kauai, Hawaii, Hollywood film crew shoots scenes for the Connaught Production (Paramount release) "ISLANDS IN THE STREAM", adapted from a posthumously published semi-autobiographical novel by Ernest Hemingway. The film stars George C. Scott and is directed by Franklin J. Schaffner, both of "PATTON" fame.

**AMERICAN CINEMATOGRAPHER**, established 1920, in 57th year of publication, is published monthly in Hollywood by ASC Holding Corp., 1782 North Orange Drive, Hollywood, California 90028, U.S.A. **SUBSCRIPTIONS:** U. S. \$9.00; Canada, foreign, including Pan-American Union, \$10.00 a year (remit International Money Order or other exchange payable in U.S.). **ADVERTISING:** rate card on request to Hollywood office. **CHANGE OF ADDRESS:** notify Hollywood office promptly. Copyright 1976 ASC Holding Corp. Second-class postage paid at Los Angeles, California.



# THE EVOLUTION

## CANON'S NEW

Ten years ago, you helped us start a legend. And since that time, you've helped it grow. Into a camera that offered increased versatility for news and documentary people... ultimately, into a camera that's equally at home in sports and features, on campus or on location.

In the beginning, you wanted a compact, self-contained, professional 16mm camera.



The original.

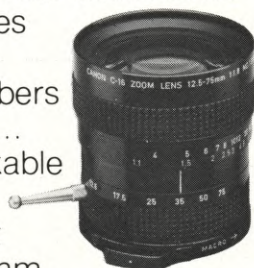
Versatile enough to shoot razor-sharp footage in a wide variety of documentary situations. Yet rugged, fast and economical enough for platoons of people to use.

We listened. Well enough to make our original Scoopic the most popular silent news and documentary camera.

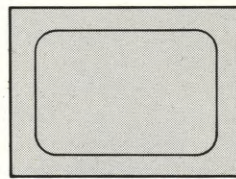
But you wanted more. More creative latitude. A more efficient battery/transport system to put more footage through the camera. And other features, to give you greater flexibility for low-light and animation.

Our answer was the Scoopic 16M, which found its way from news and documentaries onto campuses and into corporations. Thanks to growing numbers of happy Scoopic users... and a number of remarkable features.

First and foremost was the Macro 12.5-75mm f/1.8 (T2.5) lens that set



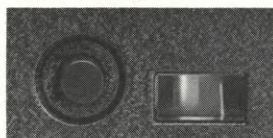
Much more than a superb macro.



Larger, brighter viewfinder shows and tells more.

new standards for the state of the art. Besides superior *conventional* capabilities, it introduced *continuous* focusing from under 3½" to infinity. And unique *optical dolly*ing — with constant image size — from a fixed position.

But we didn't stop there: Scoopic 16M offered a brighter finder with built-in T-stop indicator and wider auto-exposure range. For animation and stop-motion, we added a single-frame control, plus an improved



Built-in battery check ends guesswork.

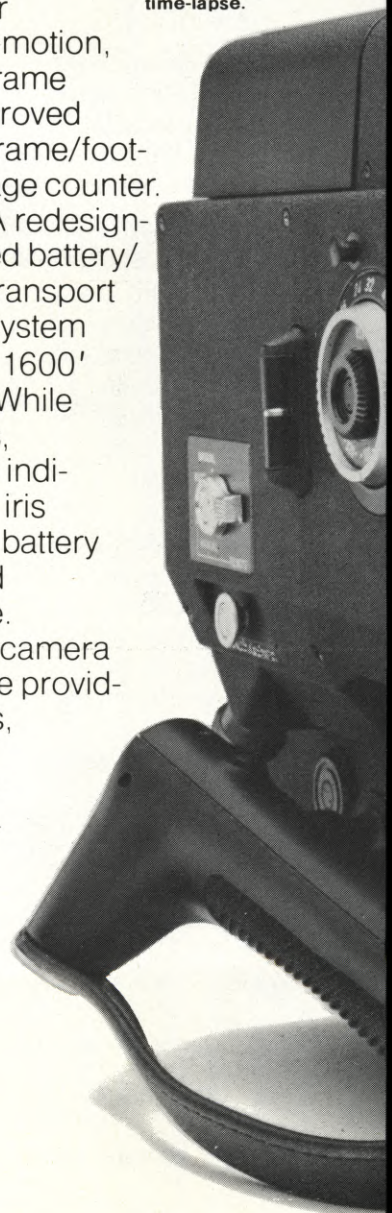
frame/footage counter. A redesigned battery/transport system

doubled capacity to 1600' on a single charge. While many other features, including a film feed indicator, inching knob, iris opening switch and battery check circuit, added further convenience.

With no other camera under *twice* the price providing all these features, Scoopic 16M soon became even more popular than its predecessor. But the more filmmakers



A boon for animation and time-lapse.





# OF THE SPECIES.

## SCOOPIC 16MS



Sound economy  
with built-in  
crystal sync.

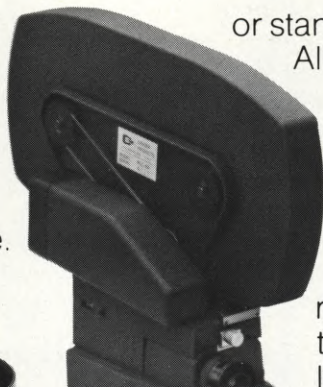
discovered about Scoopic, the more they wanted it to do: Could its capacity be increased? What about crystal control and even lower noise for sound? Built-in filtration? And more.

*The answer is "yes" on all counts. And the proof, our new Scoopic 16MS.*

For greater capacity, filming sports or features, you can use our 400' magazine adapter, with CP



Wider wides and tighter telephotos.



400' adapter and magazine keeps you in action longer.

or standard Mitchell magazines. All without losing Scoopic's internal 100' capability.

For sync sound, there's an optional built-in, crystal-controlled 24fps—accurate to .003% over -20 to +50°C. And we've reduced noise by more than 3dB, as well. You get a lot more optical versatility, too. In terms of filtration. And focal length.

For quick changes between daylight and artificial lighting, there's a convenient filter holder

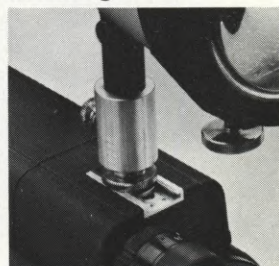
that accepts sheets of gel. And if you'd like wider wides or closer telephotos,



Easier-to-add, built-in filtration.

Scoopic will deliver them, with no loss of f-stop. Thanks to an optional snap-on 9mm wide-angle adapter and 112.5mm teleconverter.

There's a lot more to the new Scoopic you helped us design—remote control, sound barney, cold-weather shooting case...even an optional light-mounting stud, to shed more foot candles on the subject. But the best



A brighter way to carry your lighting.

news may be that the entire kit—camera with lens, battery, charger, sunshade, CdS cell hood, 5 gel filter holders, comfort eyepiece, lens cap and deluxe hard case—is still one of the best values on the professional market today. Ask your Canon professional dealer for a demonstration of the Scoopic MS... or contact us for more information.

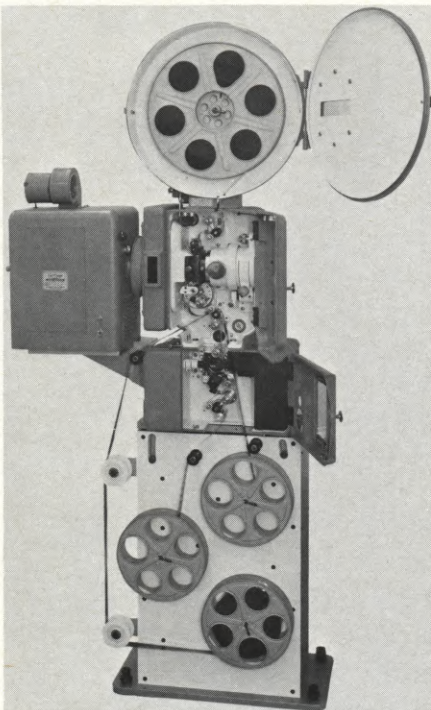
# Canon®

Professional Motion Picture Division  
10 Nevada Drive, Lake Success, N.Y. 11040 (516) 488-6700  
123 East Paularino Ave, Costa Mesa, Ca. 92626 (714) 979-6000  
3245 American Drive, Mississauga, Ontario, Canada  
(416) 678-2730



# WHAT'S NEW

IN PRODUCTS, SERVICES AND LITERATURE



## ULTRA COMPACT DUAL FILM PROJECTOR SYSTEM

A new, moderately priced, extremely compact, professional dual film projector is now available from Kelmar Systems, Inc. A customized Century projector and soundhead are incorporated in a total performance, single-source package. A rigid lamphouse table easily supports Xenon lamps of up to 1600-watt capability. All spindles and bypass guides roll on pre-lubricated ball bearings, insuring clean and uniform film path travel. It is available with standard AC, variable speed, or synchronous-drive motor packages. Built-in broadcast quality pre-amps and power supplies are available for both the optical and magnetic reproducer.

The system is ideal for use in broadcast studios, preview rooms, laboratories, and other installations requiring professional quality equipment that is prewired, attractive, and occupies minimum space.

For further information contact Kelmar Systems, Inc., 284 Broadway, Huntington Station, New York 11746.

## BEAULIEU SINGLE-FRAME DEVICE

Hervic Corp., importers and distributors of Beaulieu Super-8 and 16mm motion picture equipment, announces the availability of a new

SINGLE FRAMING ACCESSORY for use with their line of Beaulieu Super-8 Sound Cameras.

The new accessory, called a SINGLE FRAME DEVICE, can be easily attached to the camera in minutes, and may be activated with any standard cable release to advance Super-8 Sound or Silent cartridges one frame at a time for animation, time and motion studies, time-lapse photography and special effects.

The Single Frame Device fits Beaulieu 5008S, 5008MS Multispeed and 3008MS Multispeed cameras. Price: \$54.25

For further information, contact: Hervic Corporation, 14225 Ventura Blvd., Sherman Oaks, California 91423.

## "ONE-STOP" PERMITS FOR FILMING ON CALIFORNIA STATE PROPERTY

State Senator Alan Robbins, Chairman of the California State Motion Picture Development Council, has announced that the Council has become the official State agency designated to issue permits for commercial motion picture filming on any State property.

This will become effective January, 1977 under the provisions of Assembly Bill 3114 by Assemblyman Herschel Rosenthal and Senator Robbins, which has been signed by the Governor.

"As of January 1, any commercial filmmaker wishing to shoot on State-owned or operated property will have only one stop to make to obtain the necessary permit," Robbins said. "The MPDC office will be available to clear the way, to deal directly with the State agencies involved, and generally speed-up the whole process," he added.

"Between now and January, our staff will be pre-clearing hundreds of State facilities in cooperation with the operating department and with the Department of General Services," he said. "The resulting roster of approved facilities will be available to anyone in the industry. Exceptions not on the list will be handled on a case-by-case rush basis, to eliminate costly delays to the producers and protect the taxpayers' interest."

The "Roster of Approved Properties" will contain State Parks, hospitals, highways, beaches, forest camps, office buildings and a wide variety of

other facilities. In the past, each company had to deal with not only the operating agency and the person in charge at the site, but with a large number of other concerned State agencies. The new structure will allow the MPDC to pre-cut much of the red-tape, according to the chairman.

"Although Assemblyman Rosenthal was not a member of the Legislature when the MPDC was created, he has performed an invaluable service to his Hollywood-area district and to the State by authoring this bill," Robbins commented.

Robbins carried the original legislation which created the Motion Picture Development Council in 1974. He was active in industry efforts which led to the Governor's decision to advance funds from his personal office operation budget to open the Council coordinating office in April 1976. A budget item for office operating expenses was included in the 1976-77 State Budget which became effective July 1. The new bill carries an additional \$50,000 to implement the one-stop Statewide permit office assignment.

A nominal permit fee will be charged, but will be limited to reimbursement of the actual costs involved as a result of the filmmaking activities.

"The new one-stop permit facility will cut down much of the confusion and 'red-tape irritation' which has plagued the industry," Robbins stated. "We strongly feel that this will result in an improvement in the general business climate and for the motion picture industry in particular and will help stop the flow of film industry dollars out of State.

"Runaway production has been costing California taxpayers over \$100 million dollars per year in lost film revenue," he said. "The MPDC office through its present system of assistance to filmmakers needing permit information and State-wide location site information has already made a healthy dent in that figure. We're sure that after January the positive effect will be even more noticeable."

**ANIMATION**  
LEARNING KITS,  
SUPPLIES, EQUIP.  
New No. 106 Catalog \$1.99  
heath productions, inc.  
1627 Scott Avenue, W. Islip, N. Y. 11795



# Rain Drops Fallin' On Your Camera?

Even though wet winter weather is approaching, there's no need to postpone your outdoor filming. AGE Rain Covers, now available for all popular professional cameras, afford maximum protection against the elements and allow you full filming freedom even under the rainiest skies. Made of durable Nappa artificial leather with a special insulated lining constructed to give years of service, these attractive covers are extremely lightweight and waterproof. While completely covering the camera, they allow for all necessary camera functions and adjustments. Velcro fasteners permit the cover to be fitted or removed within seconds. Cameras with AGE Rain Covers may be used hand-held or on a tripod and, in addition to weatherproofing, the covers provide excellent protection from sun and heat. Available in desert white.



CAMERA MODEL	RAIN COVER PRICE:
Arriflex 16BL camera w/400' mag	\$59.95
Arriflex 16S camera only	42.00
Arriflex 16S 400' mag only	15.95
Arriflex 35 camera w/400' mag	59.95
Eclair NPR camera w/400' mag	59.95
Eclair ACL camera w/200' mag	52.95
Eclair ACL camera w/400' mag	59.50
Beaulieu R16 camera	42.00
Beaulieu R16 200' mag only	12.95
Bolex H16/RX camera	42.00
Bolex H16/RX 400' mag only	15.95
Canon Scoopic 16	34.50
CP-16 or CP-16A camera w/400' mag	59.95
CP-16R or CP-16RA camera w/400' mag	59.95

Also Available: Complete line of Sound Barneys. Write for information.

Available Exclusively From:

SERVING THE WORLD

**alan gordon enterprises inc.**



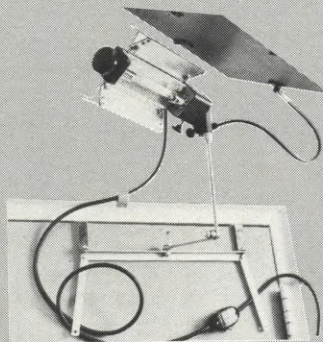
1430 N. Cahuenga Blvd., Hollywood, Calif. 90028

Sales (213) 985-5500 · Rentals (213) 466-3561

TWX: 910-321-4526 · Cable: GORDENT



# Location lighting's not what it used to be.



Tota-Light: new flexibility in mounting and control.

Location lighting imposes a number of unique requirements for well-thought-out, durably-built equipment. Over the last fifteen years, Lowel systems have proven themselves in a

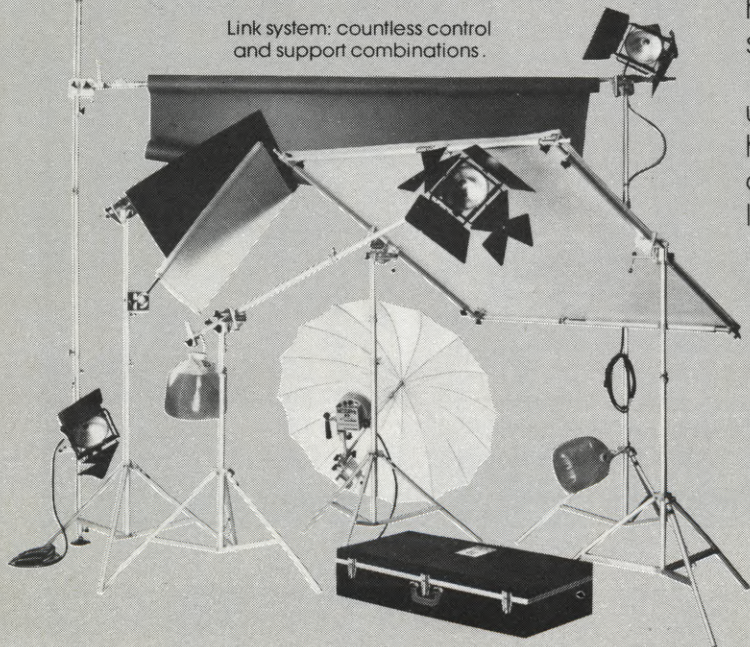
wide variety of applica-

tions in motion pictures, still photography and video. And, in the process, changed location lighting from a compromise to a creative tool.

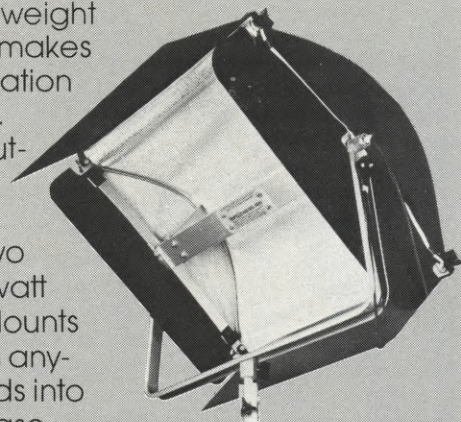
**Tiny Tota-Light.** More than a small 1000, 750 and 500-watt light with an ultra-wide, even pattern: it's the first professional quartz light built like a system camera, with lock-on mounting and control accessories.

**Modular Link System.** Solves grip and control problems as they occur on location. Rugged, light-weight components interlock to form flags, booms, diffusers...dozens of other rigs. Outstanding stands: with unusually high strength-to-weight ratios.

Link system: countless control and support combinations.



**Folding Softlight 1500.** Only a fraction of the weight of studio units, it makes soft-shadow location lighting a reality. Delivers more output than most 2K softlights



Softlight 1500: the large, soft-shadow source that fits in a small case.

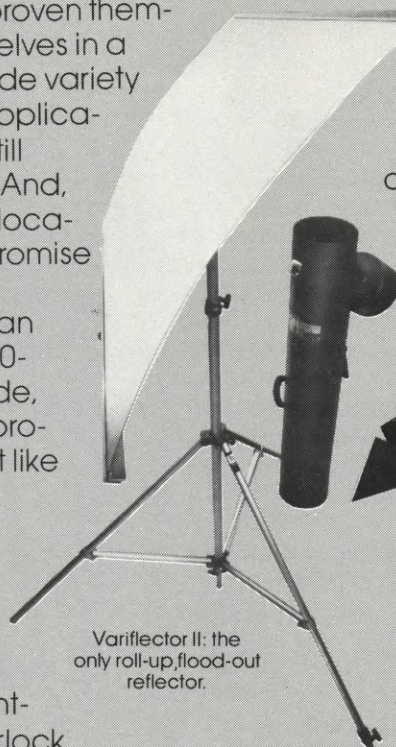
with two 750-watt lamps. Mounts or clamps anywhere...folds into compact case for travel.

### Roll-up

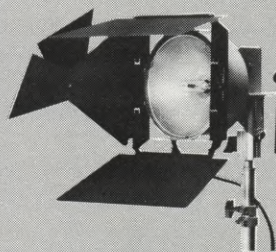
**Variflector II.** The only truly portable, professional reflector. Complete flood control through 3:1 ratio,

to adjust brightness and spread. Rolls up to fit in compact case with stand.

**Workhorse Quartz "D."** Studio versatility in a compact, light-weight focusing unit with wide (7:1) spot/flood ratio and inter-



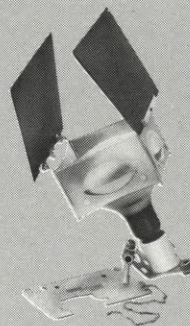
Variflector II: the only roll-up, flood-out reflector.



Quartz "D": 7-1 focusing plus high intensity.

changeable 1000, 750 and 500-watt lamps. Quick-change accessory-reflector system transforms it from a versatile general-purpose light to a high-intensity, long-throw source.

**Lowel-Light.** The tape-up, clamp-on light that helped change the industry's approach to location lighting, and introduced Gaffer-Tape™. Some of the original units are still going strong, after 15 years of rental.



The Antique.

For more information on Lowel products see your dealer or contact us.

**lowel** 

421 West 54th Street, New York, N.Y. 10019 (212) 245-6744  
West Coast: 3407 West Olive Avenue,  
Burbank, Ca (213) 846-7740



# Programmed blowups at CFI

State-of-the-art techniques, fast service and consistent quality, because *every step* is under one roof.

**E**very step in the making of a blowup affects, or is affected by, every other step.

## Fine Tuning

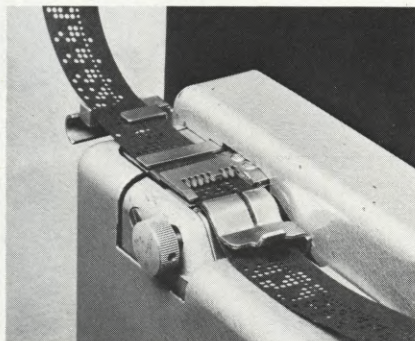
Every function—sensitometric, chemical, chromatic, mechanical, electronic and optical—must be fine-tuned to work best with the others. At CFI, there's a department that does nothing but monitor the whole system, *continually*.

## Consistency

A blowup made at CFI benefits from this in two important ways. Benefit One: since it all goes through the one tuned system, quality is *consistently* the best possible.

## One Light

For example—nine out of ten CFI blowups can be printed one light. For us, that means the system's working smoothly. For you, it means the job's ready sooner.



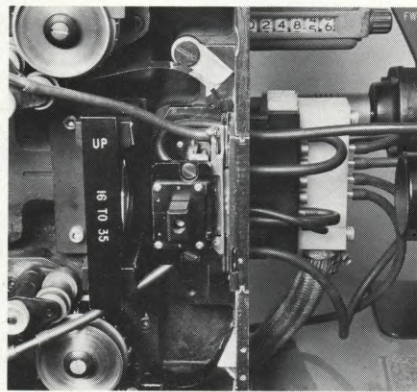
Computer punched tape automatically controls lamphouse timing settings during blowup.

## Save Time

Benefit Two: faster service. Because it's all in-house, we can schedule every step whenever we choose—day or night. And our blowup machines are used *only* for blowups (not for titles, etc.). So they're always set up, ready to go.

## Liquid Gate

Hiding scratches: some blowup machines coat each frame with liquid just



Rubber tubes pressurize liquid in glass gate. Film is fully immersed during entire exposure.

before it enters the gate. That works well, if the abrasions aren't too deep... At CFI, the film is *completely immersed* in a pressurized, glass-enclosed liquid gate.

## Programmed

After timing the original on an electronic video analyzer, we make a 16mm first trial, which the timer corrects. A computer tape of his corrected timing is then fed into the blowup printer's program input.

## Academy Award

The printer combines a standard additive-head lamphouse with a patented multicellular optical system. For this combination, (plus the liquid gate and programmed timing), the machine won an Academy Award. Here's why:

## Subtle Control

This optical system transmits a great deal of light. That lets us take advantage of the additive head's subtlety (*fifty* timing settings for each of the three primary colors). And it lets us use a slow-speed finegrain internegative—and *still* make a 10 minute blowup from A and B rolls in 2½ hours.

## More Awards

Three of this year's films nominated for Academy Awards were blown

up at CFI. A fictional short subject and two documentary features: *Dawn Flight*, *California Reich* and *The Incredible Machine*.

## Deadline

"The Academy's delivery deadline was Tuesday at 6 PM. We arrived at CFI on *Monday* morning, with 58 minutes of A/B rolls," says Walter Parkes, who co-produced *California Reich* with Keith Critchlow.

## Next Day

"At 5:30 PM the next day," says Mr. Parkes, "We picked up a 5,000 foot one-light 35mm print—and that's what the Academy projected!"

## One Roof

Irwin Rosten produced *The Incredible Machine*. "I had the blowup made at CFI because they'd done the 16mm work," he says. "The quality is very, very good!"

## Service

"We came in with a 750 foot workprint and uncut negative," says Lawrence Lansburgh, who produced *Dawn Flight* with Claire Wiles. "But you'd think we were CFI's biggest customer."

## Madman

"Everybody was *enthusiastic*," says Mr. Lansburgh. "The timer kept polishing until I couldn't *see* his changes. A real madman. And the blowup print actually looks better than one made from the camera original!"

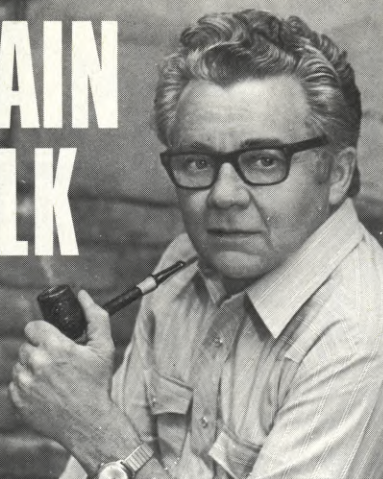
# CFI

SINCE 1924

CONSOLIDATED FILM INDUSTRIES  
959 SEWARD STREET, HOLLYWOOD  
CALIFORNIA 90038 (213) 462-3161



# PLAIN TALK



by *J. Carl Treise*

**If a processor has to be modified beyond Kodak specifications, to give you the speed you want, don't buy it.**

It's no trick to increase the film speed of a processor. All you have to do is raise the temperature, thus decreasing the development time.

However, when you do this, you're exceeding the specifications provided by Kodak for processing color films.

Maybe you can get away with it for awhile. But sooner or later, something will go wrong and when that happens, you've got no one to blame but yourself.

To put it bluntly, whenever a firm persuades you to buy a modified unit, you're asking for trouble.

How do we know?

We not only build processors, we rebuild them, too. And most of the units we're asked to work on belong to people who "bought a pitch" and then later came to us for advice on how to get out of the jam they found themselves in.

This kind of talk won't stop people who are interested only in price. But it might make a difference to those of you who are willing to spend a few extra bucks for a processor you don't have to "push" to give you the speed you want.

In the long run, you'll save money, as well as a lot of grief.

**TREISE  
ENGINEERING, INC.**

1941 FIRST ST. • SAN FERNANDO, CALIF. 91340  
PHONE: (213) 365-3124

# QUESTIONS & ANSWERS

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

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



**Q** I would like to know what kind of use a low-contrast filter has. Can you use a low-contrast filter for color cinematography also? I read that Harrison has a low-contrast filter but they explain the use only for B&W cinematography. What difference, if any, does exist between flashing and the use of low-contrast filters? How does a low-contrast filter work?

**A** Some people feel that the color on the movie screen is too vivid, or too "saturated." To overcome this effect, a certain filter is used to flatten out the contrast and thus reduce the color to more tint-like hues.

These "low-contrast" filters are a type of fog filter in that they create a white veil over the entire picture, thus reducing the contrast between the light and dark areas. A colorless, low-contrast filter works equally well with color or black-and-white film.

Another way to accomplish the same effect is to "flash" the film before or after exposure. Flashing means to expose the negative to a very weak light, in effect, fogging it just before development. A third way to desaturate color is to light a scene with soft, diffused light sources. You probably have noticed that scenes made on a hazy day are more diluted in color than those made under the high contrast conditions of bright sunlight.

Photography goes through a series of fads and the current one seems to be to "flash" all the film. This is good when certain effects such as low-key moods are wanted. It is of questionable taste for high-key moods such as happy parties, action scenes and bold drama.

**Q** What is the most satisfactory method of copying still transparencies (35mm or 2 1/4 x 2 1/4) onto 16mm motion picture film? Is there a single workable way or are there alternate approaches I could try?

**A** Probably the best workable way is to use 16mm print stock EK emulsion 7389. This is a very slow film. It should not increase the contrast of the still transparency images.

**Q** What is the purpose of the traveling matte and how does it work?

**A** The traveling matte offers a means of combining a fore-

ground photographed on the stage with the principal actors with a background scene, such as a miniature setting, as a separate part. The method is described in the October 1975 issue of *American Cinematographer*.

**Q** I edit my original color reversal film and have it magnetic-sound-stripped. However, I get an audible "bloop" when the splice hits the sound head, and after a few showings the film tends to split at the splice. The splice does not open up, but cracks develop on the soundtrack side immediately past the splice. What is the best method for obtaining a good print that will hold up and deliver good sound reproduction?

**A** Best results can be obtained by editing the original color reversal film and then having a print made. This unspliced print can be sound-stripped and projected without the problems you mention.

## MOVING?

PLEASE NOTIFY US  
6 WEEKS IN ADVANCE

Miss/Mrs./Mr.

Name (please print)

New Address

Apt. No.

City

State

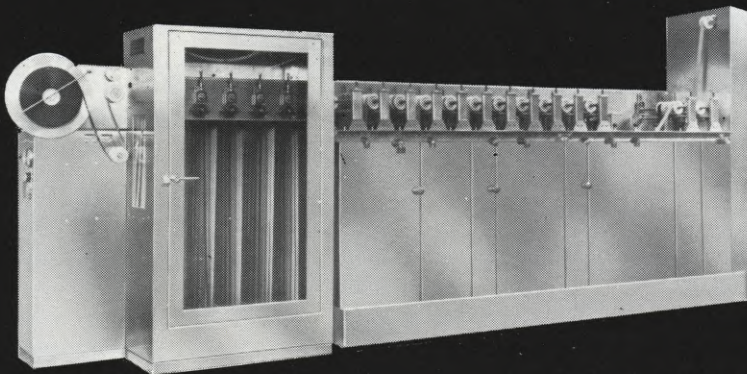
Zip

MAIL TO  
AMERICAN  
CINEMATOGRAPHER  
P.O. Box 2230  
Hollywood, Ca.  
90028

ATTACH LABEL HERE for address change or inquiry. If you are receiving duplicate copies of AMERICAN CINEMATOGRAPHER, please send both labels. If moving, list new address above.

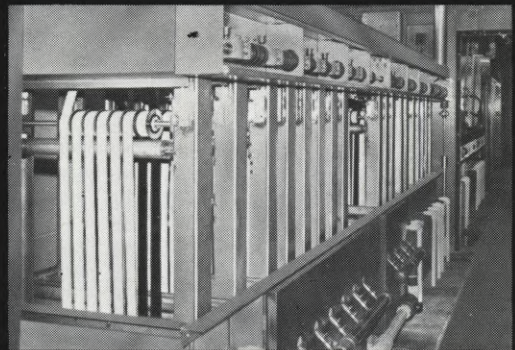


# The Standard of Excellence!



Typical medium size Filmline processor available in speeds from 7-200, f.p.m.

One of five 320 f.p.m. Filmline Color processors installed at Technicolor, Hollywood, California.



## Micro-Demand is a patented exclusively different concept in demand drive film transport systems.

Micro-Demand is a dynamically tension-controlled friction film transport system that operates effectively at minimum tension and with complete reliability. When used with Filmline Feather-Touch film spool "tires" it transports 35mm, 16mm and single strand 8mm film interchangeably and without adjustments even when these films are spliced back-to-back.

Once optimum tensions are set there is no need for further adjustments, yet the design allows easy and rapid, dynamic adjustment of film tension while the machine is running.

Micro-Demand has a broad band of self-compensation, is of functional construction and requires minimum maintenance.

There are no fragile, plastic spring bushings, no wobble rollers. No elaborate articulations, of any type. Just sound engineering and the highest quality materials and workmanship.

No other competitive processor or film transport system commercially available has ever achieved the operational speeds and proven reliability of Filmline Micro-Demand Processors.

### SIGNIFICANT MICRO-DEMAND FEATURES:

- |                      |  |  |
|----------------------|--|--|
| <b>Versatility</b>   | Any speed, any process.  | <input type="checkbox"/> Push-Button operation, and reliability allows operator to perform other functions while the machine is running! |
| <b>Reliability</b>   | Rugged construction, quality materials and sound engineering. Always ready when you are!   | <input type="checkbox"/> Automatic compensation for elongation and contraction of film during processing cycle.                          |
| <b>Flexibility</b>   | Any format 35mm, 35/32mm (1-3), 35/32mm (1-4), 35mm 5R S8, 16mm — 70MM-105MM etc.  | <input type="checkbox"/> Virtually eliminates all film breakage, scratches and static marks.   |
| <b>Dependability</b> | Can stand the gaff of long, continuous, top speed runs with "Zero-down-time."  | <input type="checkbox"/> All film spools use standard bearings or bushings.  |
| <b>Credibility</b>   | Ask the labs who own them. Most of them own not one but several.   | <input type="checkbox"/> Entire upper film shaft/roller assemblies easily removed. No tools needed.                                      |
| <b>Maintenance</b>   | Exclusive Maintenance Monitor tells when and where the machine needs attention. Significant savings assured.   | <input type="checkbox"/> Stainless steel construction used throughout.   |
| <b>Performance</b>   | Every Filmline machine is backed by a superb performance record compiled in over 25 years of continuous service to the industry. Twenty five years in the forefront of processing machine design and innovation. | <input type="checkbox"/> Proper operation can be determined at a glance, while machine is running.                                       |
|                      |  | <input type="checkbox"/> Submerged developer racks.  |
|                      |  | <input type="checkbox"/> Pumps for recirculation and agitation of all required systems.  |
|                      |  | <input type="checkbox"/> Professional spray bars.  |
|                      |  | <input type="checkbox"/> In-line filters on all required systems.  |
|                      |  | <input type="checkbox"/> Professional air and wiper squeegees.   |
|                      |  | <input type="checkbox"/> Temp-Guard Temperature Control System. Thermistor sensing and transistorized controller.                        |
|                      |  | <input type="checkbox"/> Film-Guard dry box with dual heat input and dial thermometer.   |
|                      |  | <input type="checkbox"/> Individual switches for all control functions.  |

"Filmline Engineering and Consulting Services for Complete Laboratories are Available Worldwide."

Filmline Continuous Film Processors are used throughout the world by: Deluxe-General, Technicolor, Inc., Capital Film Labs, Byron Motion Pictures, TVC Labs., Movielab, Radiant Laboratories, Guffanti Labs, Precision Film Labs, Bellevue-Pathé, ABC, CBS, NBC Network TV, NASA, General Motors, RCA, IBM, AEC...and thousands of others.



"When you buy quality, Filmline costs less"

Filmline Corporation, Dept. AN-76  
Milford, Connecticut 06460  
Area Code 203-878-2433



# Give our film a screen test. Lelouche did.

It's the only way you'll ever really know what an exceptional film Agfa-Gevaert's **Gevacolor Negative Type 680** is. Of course, we can tell you what a terrific film it is. It is. But you have to see it to believe us.

We can tell you about the remarkable reproduction of skin tones. But no matter what we say, they're better seen than said.

We can tell you Type 680 has high brilliancy, low granularity, great color stability and fine detail. You really ought to see it.

We will tell you that Type 680 offers you substantial savings in film costs. You can't really appreciate the savings unless you appreciate the film. You will. But we can only tell you that.

Of course, if you'd like to know what Type 680

can do for someone else, see Lelouche's "Le Chat Et La Souris". Or Barrero's "Los Pasajeros". Or Verhavert's "Pallietter". If you want to know what it can do for you, you'll have to see for yourself. Test it. You'll love it as much as we do.

One thing we should tell you. The new Type 680 is compatible with Eastman Color Negative processing for type 5254.

What more can we tell you?

If you'd like to know more about Gevacolor Negative Type 680, or our other Motion Picture products, write to:

Motion Picture Department,

**Agfa-Gevaert, Inc.,**

275 North Street, Teterboro, N.J., 07608



SYSTEMS FOR PHOTOGRAPHY • MOTION PICTURES • GRAPHIC ARTS • RADIOGRAPHY • VISUAL ARTS • REPROGRAPHY • MAGNETIC RECORDING

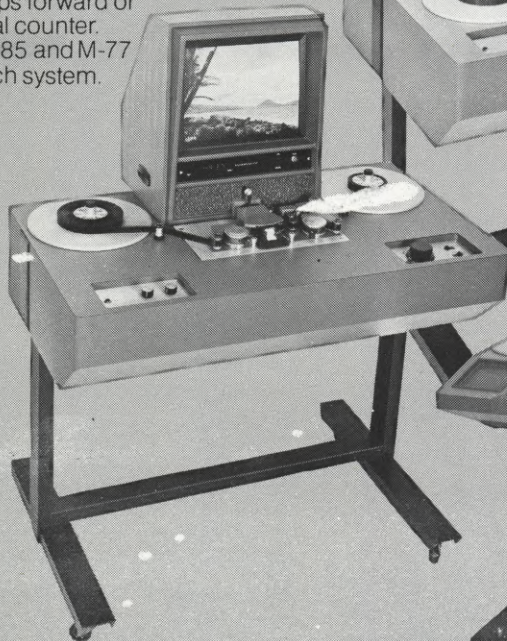


# EDITING PROBLEMS COME IN 3 SIZES.

**NOW THE SOLUTION DOES, TOO.**

## **SMALL**

Moviola M-84 2-Plate Editing Console. 16mm composite optical/magnetic picture head, 0-240 fps forward or reverse, digital counter. Masters to M-85 and M-77 with servo-tach system.



## **MEDIUM**

Moviola M-85 4-Plate Editing Console. 16mm composite optical/magnetic picture head; interchangeable 16mm and 35mm sound modules for second set of plates; 0-240 fps forward or reverse, digital counter. Multi-track mixing capabilities. Masters to M-84 or M-77 with servo-tach system.



## **LARGE**

Moviola M-77 6-Plate Editing Console. 16mm composite optical/magnetic picture head; two sets of sound heads (16 or 35mm interchangeable modules). 0-240 fps forward or reverse, digital counter. Extensive mixing capabilities. Masters to M-84 or M-85 with servo-tach system.



**CAMERA MART** 

THE CAMERA MART, INC.

New York, N.Y. 10019 (212) 757-6977

**SALES • RENTALS • LONG-TERM LEASES**



# CINEMA WORKSHOP



By ANTON WILSON

## AUDIO BASICS V — LEVEL METERS

The audio level meter is probably the most basic tool in sound recording. Every professional recordist, and even most amateurs, have a basic feeling for these meters. The general rule of thumb seems to be, "Keep the needles kicking up around 0 VU, but don't let them go over." This is like a cameraman saying, "Point the camera at the subject and push the button." While neither of these statements is false, they are obviously gross simplifications. Yet, for many sound recordists, the former statement represents the extent of their knowledge of level meters.

What is a level meter really telling you? To begin with, there are two different types of level meters in use today, and each displays entirely different information.

The older type of device is called a VU meter, while the modern trend is toward the Peak Reading Meter or Modulometer. An understanding of the VU meter requires a quick look into its history. In the old days of recording, before solid-state microelectronics, a meter had to be direct and simple. What could be more simple than a basic voltmeter, reading the level of the audio signal? That is basically what a VU meter is — a voltmeter connected to the recording amplifier. However, the VU meter turned out to be *too* simple. A voltmeter is partly a mechanical device,

and the moving pointer has a definite mass, inertia, damping, and friction. All these characteristics are called its "ballistics". The audio signal is often comprised of quick transient peaks on the order of a milli-second which the mass of the VU pointer couldn't possibly register. The mass of the pointer is great enough that many extremely short peaks can be there and gone before the pointer even begins to budge.

What this boils down to is the following: If the audio signal is a long, sustained note, the VU meter gives an accurate indication of the signal. It has plenty of time to reach the maximum level of the signal and stabilize. If the signal is of extremely short duration, the VU meter may not register at all or, at best, give an indication significantly below the actual maximum level. If the signal is comprised of a series of peaks and dips (human voice, music), the VU meter will give an *average* reading somewhat below the peaks. In this respect, the mass of the VU pointer acts like a mechanical flywheel displaying the average energy being fed to it.

To make the matter even more complicated, the various audio manufacturers incorporated meters with different ballistic characteristics and different calibration points. Eventually a standard had to be agreed upon.

Since the human voice seemed to be the most prevalent signal in the early days of broadcasting, the VU meter

was calibrated with voice as a reference. Once the ballistics of the VU meter were standardized, it was found that the quick peaks of the human voice (to which the meter does not respond) were actually 8 to 10 dB above the *average* reading that the VU meters displayed. As a result, the 8 VU point on a VU meter was (and is) set 8 to 10 dB below actual 100% modulation. In the case of tape recording, the 0 VU point is actually 8 to 10 dB below the point of tape saturation. FIGURE 1 best explains this fact. Note that the line representing actual tape saturation is 8 to 10 dB above the 0 VU meter point for the most significant portion of the audio spectrum. This 8 to 10 dB area is sometimes referred to as *recording headroom*.

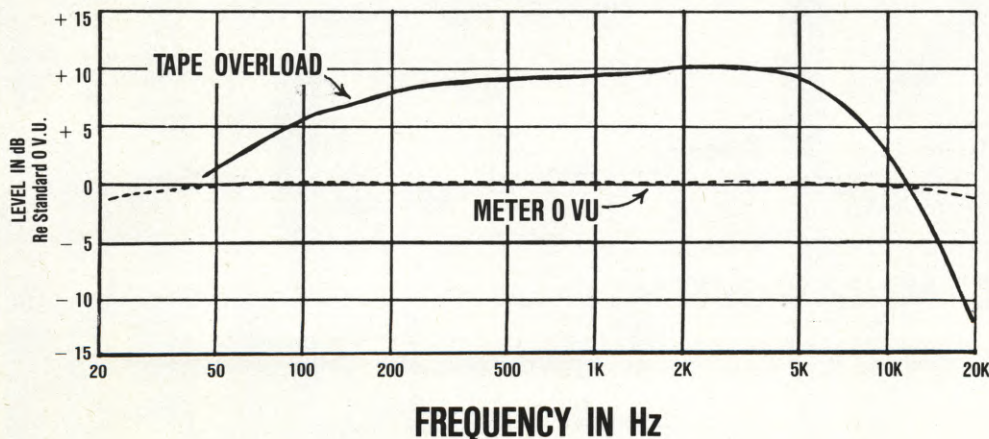
In practical terms, the two important points to remember are, one, that the VU meter has mechanical mass that prevents it from responding to quick peaks. As a result, it will *average* quick fluctuations of volume. Point two is that the VU meter is usually calibrated such that 0 VU is really 8 to 10 dB *down* from actual tape saturation or broadcast overmodulation.

When recording voice, the needle should be kept close to 0 VU and rarely should it be allowed to dart much above the 0 VU point. This practice is based on the definition of the VU meter. Since we know that the peaks of the human voice are 8-10 dB higher than the average reading of the VU meter, these peaks will "use up" the 8-10 dB headroom. Therefore, the average reading of the VU meter should not be allowed to go above the 0 VU mark.

Where the signal is relatively sustained and not peaky, the VU meter can actually be allowed to go significantly above 0 VU. For example, an opera soprano hitting a sustained note can put the needle up to +3 VU easily. As a matter of fact, if the VU meter was marked up to +8dB, the needle could be allowed to reach this point. The reason should be clear. On sustained notes, the VU meter has time to display the actual peak or maximum level, and, by calibration, the maximum level is 8 to 10 dB above 0 VU on the meter.

On the other hand, recording  
Continued on Page 1282

FIGURE 1 — Note that for the major portion of the audio spectrum, tape saturation is actually 8-10 dB above 0 VU. This 8-10 dB distance above the meter 0 VU is called recording headroom.





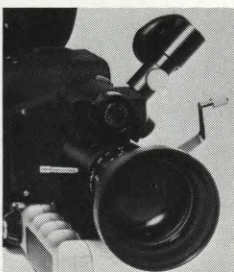
# Trade up to a CP-16/A and save up to \$3990!

Good news for small TV stations, freelance news/documentary cameramen and young independent filmmakers!

Our extremely popular Bicentennial Trade-In Special is extended until December 31, 1976.

You can still trade in *any* 16mm camera you presently own — no matter how old, whatever its condition — for a brand new CP-16/A (with built-in Crystasound amplifier) and save \$1250 off list. Or \$1000 off on a standard CP-16.

## Spectacular savings on camera/lens packages.



And, for the first time, we are able to include in our camera/lens offer two outstanding Angenieux zoom lenses with Automatic

Iris Control at truly spectacular savings!

For example, trade in *any* 16mm camera together with lens for a brand new CP-16/A and Angenieux 9.5-95mm AV30 DA lens (with Automatic Iris Control). And, as an *added bonus*, we include a front-mounted VU meter at no extra charge. You save \$3990 off list!

Study the discount chart and pick the package deal that suits you best.



Trade in <u>any</u> 16mm camera and lens ...				
PURCHASE: ⇩	CP-16 (Code #1C216) with one of the lenses listed below:		CP-16/A (Code #1C272) with one of the lenses listed below:	
	YOU PAY ONLY:	YOU SAVE: (off list)	YOU PAY ONLY:	YOU SAVE: (off list)
with Angenieux 9.5-95mm AV30 DA Zoom Lens (Automatic Iris Control)	\$6835	\$3575	\$7685	\$3990
with Angenieux 12-120mm AV30 DA Zoom Lens (Automatic Iris Control)	\$6105	\$2875	\$6955	\$3290
with Angenieux 12-120mm AV30 Zoom Lens	\$5915	\$1325	\$6765	\$1575
with Angenieux 9.5-57mm AV30 Zoom Lens	\$6210	\$1525	\$7060	\$1775

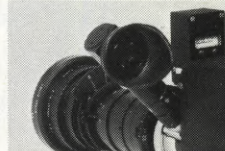
**Consider.** For a mere \$190 extra you can now have a camera/lens package with the Angenieux 12-120mm AV30 DA lens with Automatic Iris Control (instead of the standard 12-120mm zoom).

## Plus two-year warranty and free "loaner."

This special offer is covered by an extended two-year factory warranty on all mechanical and electronic components when you purchase your camera from your authorized local CP-16 dealer.

Your local dealer will also provide you with a free CP-16 "loaner" for any down time on a warranty-covered repair.

NOTE: When you purchase a CP-16/A with either one of the Automatic Iris Control lenses, we include the front-mounted VU meter (Code #1M113) at no additional charge.



### Special Magnetic Head Trade-In Offer

Trade in any professional 16mm magnetic head for a 3XL-IAZ magnetic head (with individual record and playback azimuth adjustment) at the special price of \$270!



See your local CP-16 dealer now. And save!

**cinema E products**  
CORPORATION

Technology In The Service Of Creativity

2037 Granville Avenue, Los Angeles, California 90025  
Telephone: (213) 478-0711 ■ Telex: 69-1339 ■ Cable: Cinedevco





**THE BRIGHTEST DAYLIGHT  
SOURCE USED TO BE  
93,000,000 MILES AWAY...**

## **UNTIL NOW.**

Flicker free HMI daylight portable lighting from Berkey Colortran. Unique integrated 12 lb. patented electronic ballast/ starter.

One switch controls all electrical functions. Instant hot or cold starting. Operates on 120V, 220V, and 240V, 50/ 60 hertz.



Usable at any shutter angle and frame rate. Adjustable color temperature control extends lamp life. Available in Sun Spot fresnel lens spotlight and Sun Broad for close in fill. Daylight; where you want it, when you want it. For more information write Department AC-1176

# **SUNLITES**

## **Berkey Colortran®**

1015 Chestnut Street, Burbank  
California 91502, Tel. 213 843-1200

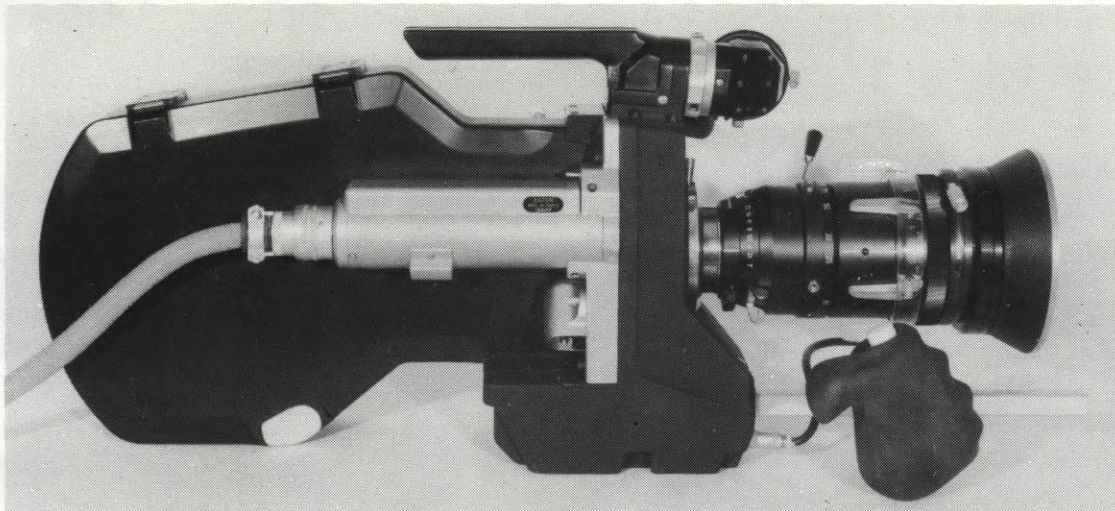


DIVISION OF  
Berkey  
Photo Inc.

P.O. Box 5, Burrell Way, Thetford  
Norfolk IP24 3RB, U.K., Tel. Thetford 2484



# An A to Z of New 16mm Goodies



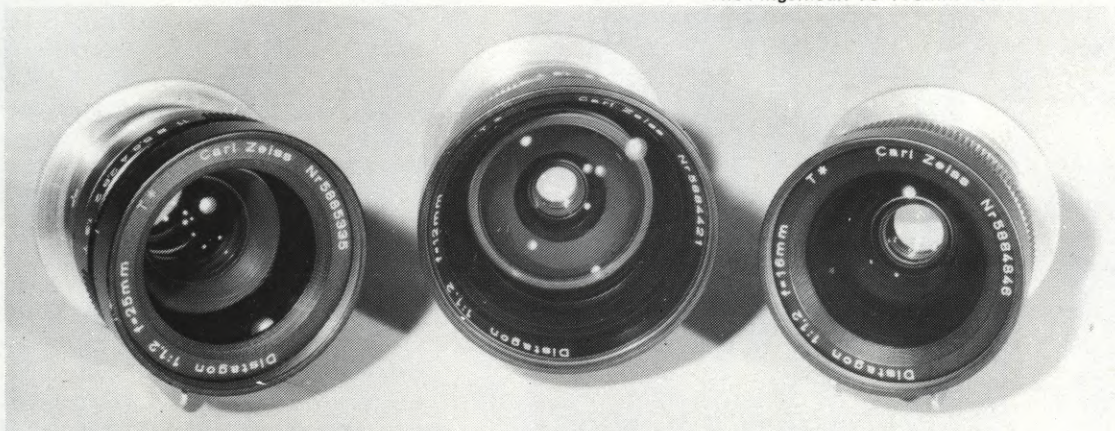
The Aaton showing the TV viewfinder and Zeiss 10:100mm zoom



The Arriflex 16SR camera



The Angenieux 10:150mm zoom



The Zeiss Distagon T1.3 ultra wide aperture lenses — 12mm, 16mm and 25mm

**A**is for Aaton, the camera that fits snugly on the cameraman's shoulder, makes less noise than any other 16mm camera we've tested *and* has a built-in TV viewfinder system.

**A**is for Arriflex 16SR, rapidly becoming the 16mm camera most in demand.

**A**is also for Angenieux. Particularly the new 10:150mm T2.3, a handy addition to Angenieux's already comprehensive range of zoom lenses.

**Z**is for Zeiss zoom lenses for 16mm cameras. We supply both the Aaton and the Arri 16SR with Zeiss 10:100mm T2.3 zoom lenses as standard equipment.

**Z**is also for Zeiss Distagon, the new T1.3 ultra wide aperture fixed focal length lenses for 16mm cameras. We supply them in sets of three comprising 12mm, 16mm and 25mm to go on any 16mm camera fitted with an Arri steel bayonet mount or, by use of an adaptor, any 16mm camera with an Eclair mount.

European Managing Associates for **PANAVISION**<sup>®</sup> Corporation of California Ltd.

**THERE'S ALWAYS SOMETHING NEW AND EXCITING AT SAMUELSONS**

**SAMUELSON FILM SERVICE LIMITED**

303/315 Cricklewood Broadway, London NW2 6PQ., ENGLAND. Tel: (01) 452 8090. Telex: 21430. Cables: Samcine London.

**SAMUELSON ALGA-CINEMA SARL**

24/26 Rue Jean Moulin, 94 Vincennes, Nr. Paris, FRANCE. Tel: 328 58 30. Telex: 670260 F. Cables: Samcine Paris.

**SAMUELSON FILM SERVICE AUSTRALIA (Pty) LIMITED**

25 Sirius Road, Lane Cove, Sydney 2066, N.S.W., AUSTRALIA. Tel: 428 5300. Telex: 71 25188. Cables: Samsmeal Sydney.

**SAMUELSON INTERNATIONAL BV**

Oosteinderweg 261, Aalsmeer, Nr. Amsterdam, HOLLAND. Tel: 02977 27701. Telex: 14613. Cables: Samcine Amsterdam.



**SAMFREIGHT LIMITED**

Room 65, Cargo Agents' Building, London Airport, ENGLAND. Tel: (01) 897 2851. Telex: 22197. Cables: Samfreight London.

**SAMCINE SALES LIMITED**

303/315 Cricklewood Broadway, London NW2 6PQ., ENGLAND. Tel: (01) 452 8090. Telex: 21430. Cables: Samcine London.

**SAMUELSON GENOP (Pty) LIMITED**

Genop House, 15 Hulbert Road, New Centre, Johannesburg, S.AFRICA. Tel: 836 4275. Telex: 43 0057. Cables: Genop Johannesburg.



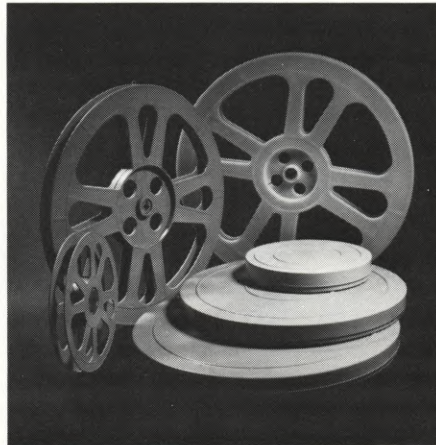
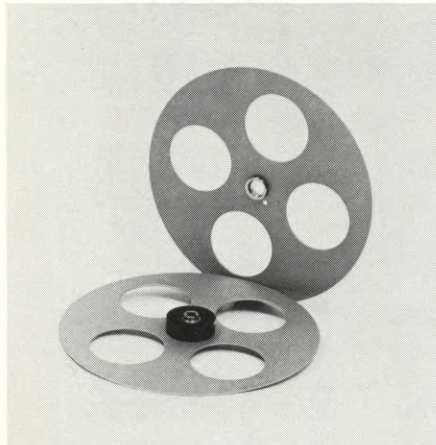
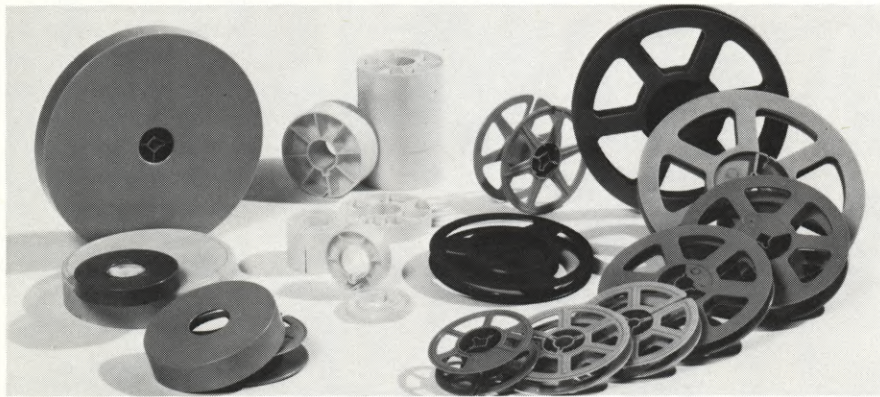
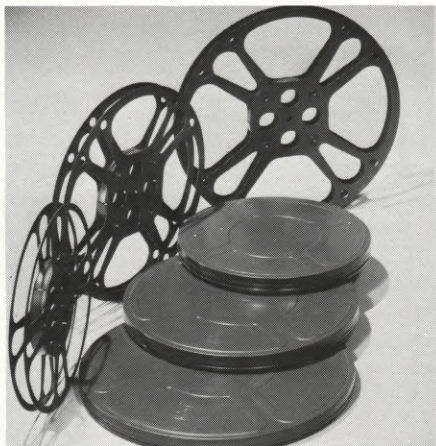
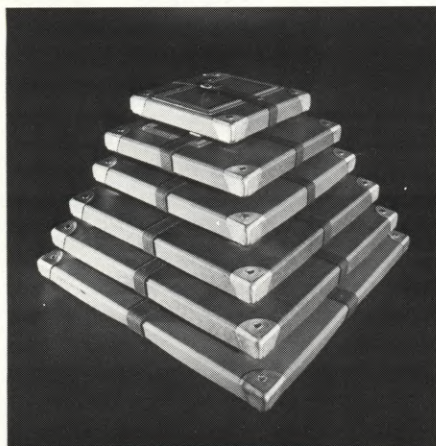
**SOUTHERN LIGHTING ASSOCIATES LTD.**

112 Cricklewood Lane, Cricklewood, London NW2 6DP, ENGLAND. Tel: (01) 452 5477. Telex: 21430. Cables: Samcine London.



# REEL PERFECTION

*is a GOLDBERG tradition!*



## Specify GOLDBERG for all your reel needs!

- 8mm, Super 8mm, 16mm Reels
- Shipping cases in fibre & plastic in steel, plastic & aluminum, 50' to 2000'
- Split Reels in steel & aluminum
- 8mm & 16mm cans in steel & plastic
- 35mm, 70mm Reels in steel & aluminum

*If it's special, we can make it!*



## GOLDBERG BROTHERS

P.O. Box 5345, T.A. - Denver, Colorado 80217

# THE BOOKSHELF

By GEORGE L. GEORGE

## INSIDE ANIMATION

Mastery of the purely scientific—mathematical to be precise—side of animation techniques is essential to provide the necessary illusion of smooth movement on the screen. A total approach to the problems involved is taken by Brian Salt in *MOVEMENTS IN ANIMATION*, a large format 2-vol. boxed set. Vol. 1 deals with the planning of zooms, pans, curves, aerial images, etc., while Vol. 2 carries mathematical tables for the computation of special effects. A truly indispensable book to any producer or practitioner of animation. (Pergamon Press, Fairfield Park, Elmsford, NY 10523; \$100.)

In *THE FLEISCHER STORY*, Leslie Cabarga heralds the saga of Max Fleischer and his 4 brothers who made cartoons a household word. Betty Boop, Popeye the Sailor, Koko the Clown and Superman were some of their seminal characters, not to mention a 1923 seven-reel animated feature, *Einstein's Theory of Relativity*. (Crown \$12.50)

The value of storyboards and other types of drawing in translating words into graphics is amply demonstrated in *VISUAL SCRIPTING*. Edited by animator John Halas, this strikingly illustrated book draws upon 14 experts to scan that technique's utilization in various fields, from television commercials to animated features. (Hastings House \$30.)

\* \* \*

## ALL ABOUT DIRECTORS

"Even under the most ideal conditions, a director must work under tremendous handicaps." Guided by this wise maxim, Ronald Lloyd examines closely, in *AMERICAN FILM DIRECTORS*, the work of Ford, Welles, Hawks, Penn, Hitchcock, Kubrick and 3 "new" directors (Bogdanovich, Coppola and Altman). The author's espousal of the "auteur" theory is a measure of his understanding of the director's crucial function. (Franklin Watts \$4.95)

Donald Spoto's ambitious and scholarly work, *THE ART OF ALFRED HITCHCOCK*, offers a comprehensive portrait of the director and his oeuvre. In addition to in-depth analyses of all



his 53 films, the book explores Hitchcock's artistry from his story plotting to his visual techniques. An exceptionally thoughtful book that picks up where Truffaut's "Hitchcock" leaves off. (Hopkinson & Blake \$13./8.95)

The 5th volume of the Hollywood Professionals series contains expert studies of KING VIDOR by Clive Denton and of JOHN CROMWELL and MERVYN LEROY by Kingsley Canham. Their factual and perceptive surveys are well-researched and include complete filmographies. (Barnes \$3.50)

In the Monarch Film Studies, Thomas R. Atkins discusses British director KEN RUSSELL and documentary filmmaker FREDERICK WISEMAN, while John Baxter tackles KING VIDOR. These three books search out the essential characteristics of their subjects in expertly written texts and contain useful filmo-bibliographies. (Simon & Schuster \$2.95 ea.)

A fitting tribute to a notable British director, THE FILMS OF ANTHONY ASQUITH by R. J. Minney follows a distinguished life (1902-1968) marked by such exceptional films as *Pygmalion*, *The Browning Version* and *The Doctor's Dilemma*. (Barnes \$10.)

\* \* \*

#### THE MANY FACETS OF FILM

As a child, author James Horwitz was an avid fan of Western movies which he celebrates in THEY WENT THAT-AWAY for their innocent and up-standing picture of American manhood. This well-rounded history of Hollywood oaters is an entertainingly literate evocation. (Dutton \$8.95)

In the guise of a picture quizbook, John Cocchi's THE WESTERNS is an attractive visual cavalcade of the genre, covering a 75-year span in 238 stirring stills. (Dover \$3.)

Thomas R. Atkins' SCIENCE-FICTION FILMS and GRAPHIC VIOLENCE ON THE SCREEN, together with R. H. W. Dillard's HORROR FILMS, are 3 additions to the Monarch Film Studies that handle these popular subjects in well-documented and attractively presented books. (Simon & Schuster \$2.95 ea.)

With permissible sensationalism, FREAKS: CINEMA OF THE BIZARRE by Werner Adrian and SWASTIKA: CINEMA OF OPPRESSION by Baxter Phillips cover their specialized fields without mincing words or sparing illustrations. (Warner \$5.95 ea.)

Twenty years of pop music on the screen are surveyed by Philip Jenkinson and Alan Warner in CELLULOID ROCK, starting (arbitrarily, the authors admit) with Marlon Brando's *The Wild One* through *Harry and Ringo's Night Out*. Perhaps not the definitive book on the subject, but informative and entertaining. (Warner \$5.95)

\* \* \*

#### BUSY HEADLINERS

Winner of 2 Oscars, screenwriter Ring Lardner, Jr. has written a fascinating, eloquent and detailed memoir about his kinfolk, THE LARDNERS, as delightfully untypical a family as ever sprang from the staid background of early American settlers. (Harper & Row \$12.95)

Anne Baxter displays remarkable literary ability in INTERMISSION, a brilliant and moving autobiographical account of the four years she lived with her husband in the Australian bush, with only occasional movie jobs in the U.S. (Putnam \$10.)

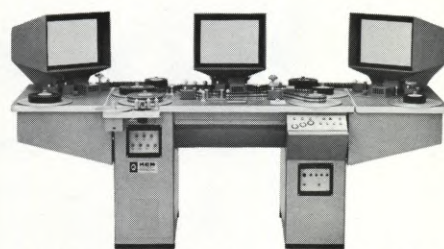
The life of one of the most accomplished actors of our times is skillfully narrated in CHARLES LAUGHTON by Charles Higham. This detailed and sympathetic biography offers rich insights into a complex personality, disclosing Laughton's secret homosexuality with considerable tact. (Doubleday \$8.95)

Telling his own story to Harry Stein, TINY TIM manages to enlist the reader's goodwill and empathy for one who is too often considered merely an efficiently packaged entertainment curiosity. The real Tiny Tim emerges as a kooky, but likable real personality. (Playboy Press \$8.95)

Groucho Marx, now a youthful 85, has no less than 2 books out at the same time. THE SECRET WORD IS GROUCHO (Putnam \$8.95), written with Hector Arce, is all about his popular TV series "You Bet YOur Life" which opened in 1947 and is currently enjoying a healthy rerun. Highlights of the show, quips, gags and repartee are reprinted as well as comments by the program's staff. Groucho's second book is BEDS (Bobbs-Merrill \$2.), based on the premise that "Anything that can't be done in bed isn't worth doing at all." (Bobbs Merrill \$2.)

The life story of actress Grace Kelly is told with charm and distinction in PRINCESS GRACE by Gwen Robyns. (McKay \$8.95) ■

# 17 of this year's Academy Awards were won by films edited on a KEM



Unique, modular, extendable editing system—quickly interchangeable for all formats.



EAST OF THE ROCKIES

**MM Editing Systems Inc.**  
230 Park Avenue (at 45th St.), Rm.  
339, N.Y. N.Y. 10017 (212) 889-0440

WEST COAST

**KEM Editing Systems Inc.**  
6253 Hollywood Blvd, Hollywood  
California 90028 (213) 461-4143



---

# All film stock is created equal. Your creativity and ours make the difference.

---



**WRS**

MOTION PICTURE LABORATORY  
210 Semple Street,  
Pittsburgh, Penna. 15213  
Phone 412 687-3700

**color  
tech**

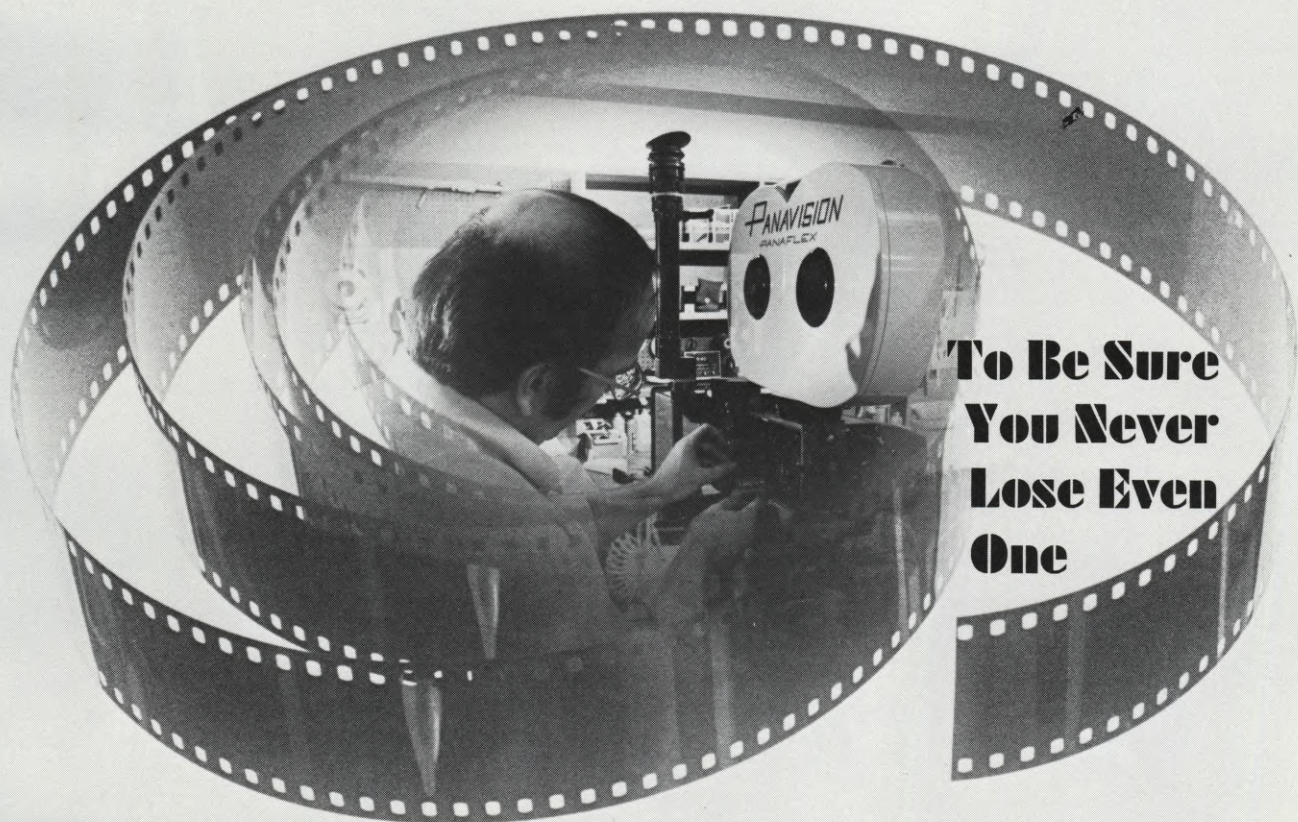
FILM LABORATORIES, INC.  
640 N. Broad Street,  
Philadelphia, Penna. 19130  
Phone 215 236-9100

Wash. D.C. Area Office  
Phone 202 554-7019  
Los Angeles Area Office  
Phone 213 822-6114

TOMORROW'S TECHNOLOGY NOW!



# We Run 30,000 Feet of Test Film Each Week



**To Be Sure  
You Never  
Lose Even  
One**

At Victor Duncan we run an average of 30,000 feet of film each week through our rental camera equipment 'before' it goes out on rental. 30,000 feet just to make sure that every important detail in camera operation is perfect; perfect camera speed, perfect clutch and magazine takeup, perfect loop performance.

And this is in addition to our 'everytime' check of the flange focal depth, ground glass alignment and camera collimation. We know the importance of perfect camera operation when you're on a shoot. The last problem any cinematographer needs is equipment malfunction. So we go that extra step to give you as near perfect operation as possible on all our rental equipment.

On your next picture, call the professionals at Victor Duncan. We know you'll appreciate the results.



**VICTOR DUNCAN, INC.**

Exclusive Midwest distributor of Panavision®

**the check and double check people**

VICTOR DUNCAN, INC.,		
200 East Ontario	Chicago, Ill. 60611	(312) 321-9406
2659 Fondren	Dallas, Texas 75206	(214) 369-1165
11043 Gratiot	Detroit, Michigan 48213	(313) 371-4920



12 field spring-loaded glass platen holds cels and other artwork flat eliminating glare.

multi-level and center adjusting lighting brackets for mounting varied light sources.

Interchangeable camera brackets adapting most quality cameras.

spring-balanced vertically adjustable, ball bearing camera carriage and lock for artwork from sub-35mm to 11" x 14".

animation dissolve linkage and scale.

precision registration devices position artwork from animation cels to filmstrips and mounted slides.

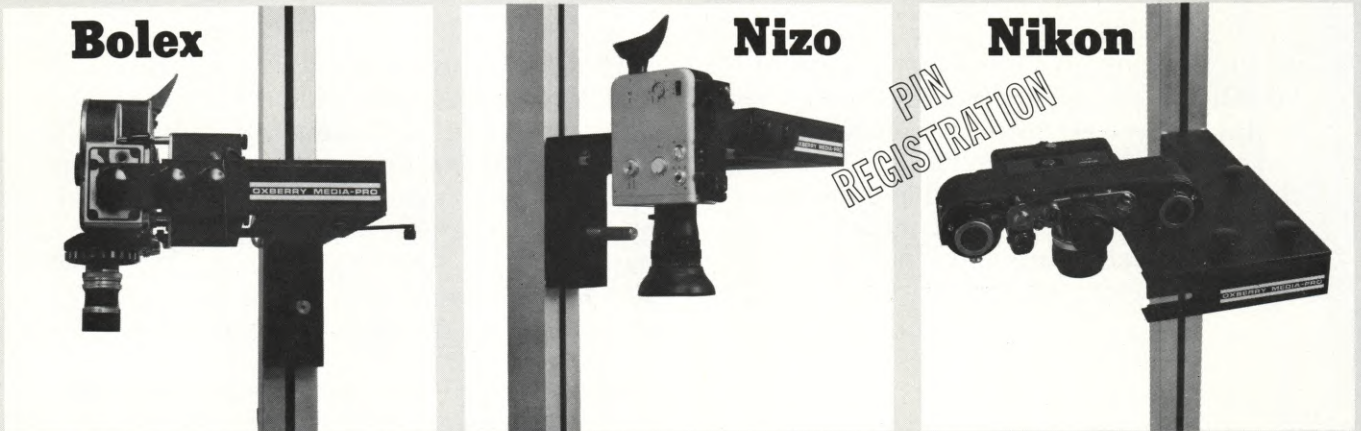
eight-field pantograph guide for artwork positioning.

Kelvin corrected 9x12 backlight with registration for cel animation or transparency copying.

viscous-damped compound table for precise animation, slide and filmstrip positioning. Center pin permits 360 rotation.

animation motor and console for continuous or single-frame, reverse or forward with resettable frame counter.

# Oxberry Media-Pro Plus...



## ...Equals Media Versatility

The OXBERRY MEDIA-PRO PLUS is designed for the in-house producer who requires multi-media versatility at a low initial cost.

Think about it . . . one multi-media system that will turn out professional media communication in 6 media formats. A "media pro" with many features some new and unique to the MEDIA-PRO and some old OXBERRY favorites developed over 25 years of media industry experience. Take a look at . . .

. . . the viscous-damped compound movement; essential for life-like moves in filmography/videography and invaluable for fast and accurate copy photography.

. . . the animation type, moveable peg registration for highly accurate art placement from cel animation through 35mm

macro-copy photography.

. . . the Kelvin corrected cold backlight which covers evenly 12+ fields and up to 16 x 20 on opaque copy.

. . . the multi-camera design that adapts five MEDIA-PRO camera systems to a common optical center. The basic stand also mounts most other fine still, motion, and video cameras.

. . . the extensive line of supplies and special production accessories bracketing the entire audio-visual field.

For more information about the MEDIA-PRO PLUS and other OXBERRY systems write to:



A Division of Richmark Camera Service  
516 Timpson Place, Bronx, N.Y. 10455  
Tel. (212) 585-0730 Cable Oxberry, N.Y.  
Telex No. 422250 Res.

®

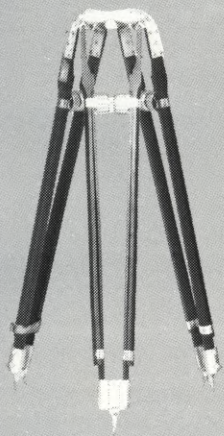


# B & S HAS SOME WINNING COMBINATIONS FOR YOUR TV NEWS DEPARTMENTS.

The new, improved B&S "C"-mount Omnippon® lens system is available to TV News Departments. These moderately priced lenses are noted in the industry for brilliance, sharpness, color rendition and resolution. For 16mm motion picture cameras and 1-inch TV cameras. The fantastic performance of these

impeccably designed lenses equals or exceeds the quality of the most expensive competitive lenses.

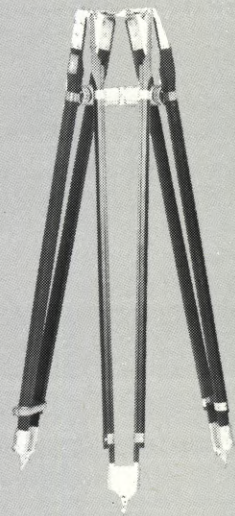
Birns & Sawyer is proud to offer the Omnippon MKII lenses which include the 12.5mm F1.4, #1341, \$260.00; 25mm F1.4, #1343, \$205.00 and the 75mm F2.5, #1344, \$240.00.



VGM200 Baby



Omnippon® Lenses and Objective Viewfinders



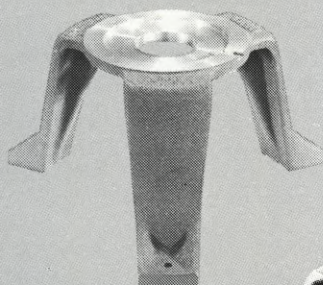
VGM200 Standard

## Special Free Offer

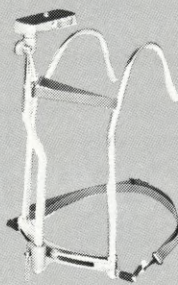
Purchase any 12.5, 25 or 75mm Omnippon lens during October, November or December and receive free a matching Viewfinder lens selling for as much as \$30.00. B&S has the most complete line of high quality viewfinders available anywhere — ranging from 10mm to 150mm and prices from \$24 to \$55, some less than a third the cost of competitive lenses.

## And There's the CP-16R Telezoom . . .

**AND MUCH MORE!**



VG100 Hi-Hat

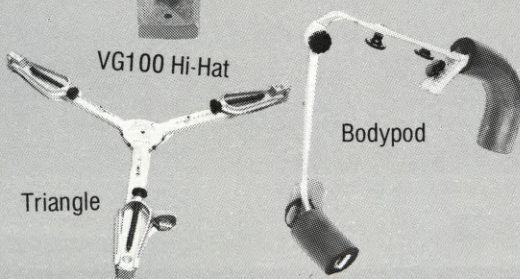


Tri-Pod



CP-16R Telezoom

The new Telezoom Extender for the CP-16R is precision engineered to double focal length and hold sharp corner to corner coverage. Color resolution is superb. Converts the 12-120mm Angenieux zoom to 24-240mm and the 9.5-95mm to 19-190mm, Cat. No. 1410, \$199.50. And don't forget to ask about our other B&S Telezooms for the Eclair, Cat. No. 1383, \$174.50; and the Arri Extender, Cat. No. 1383, \$124.50. And remember, the BNC-R Extender, Cat. No. 1384, \$795.00, fits both spinning mirror and pellicular Mitchells, Hard Front Arris and XR-35 cameras.



Triangle

Bodypod



**BIRNS & SAWYER, INC.**

SUPPLIERS TO THE MOTION PICTURE INDUSTRY — SINCE 1954

1026 North Highland Avenue • Los Angeles, California 90038

Cable BIRNSAW

(213) 466-8211

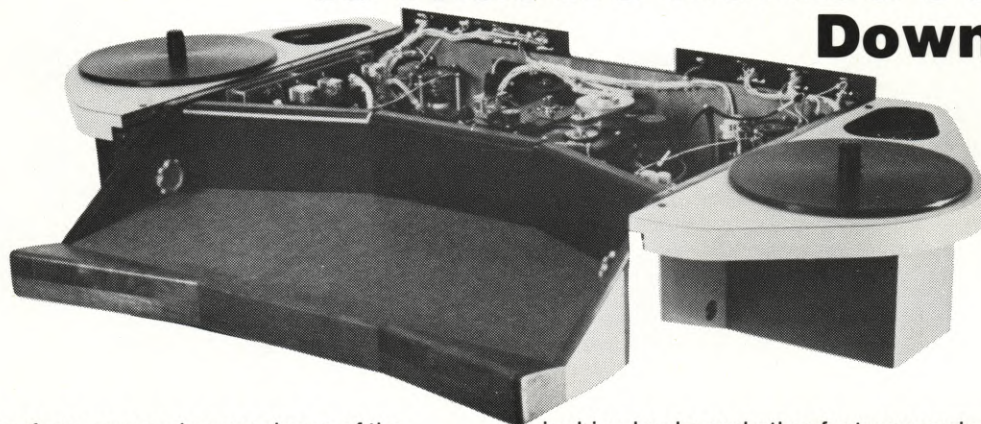
TELEX 673280



# The Reason Showchron Works So Well For You Up Here



# Is That We Worked So Hard Down Here



The quality performance and convenience of the Showchron console was no accident. We put hundreds of hours into the development of each individual feature just to make your work a little easier. The digital counter displays were designed to give you instant readings of not only feet/frames but also minutes/seconds and frame displacement.

We consolidated all film control knobs into a master control which gives you instant start and stop, film speed control and forward/reverse switching. Inching knobs are on all sprockets for manual frame locating. And all controls are designed to gently handle your film.

All the features of the Showchron are 'Human Engineered' to give you maximum efficiency in your flatbed editor. The digital displays, master controls,

inching knobs and other features are just part of the story. We designed the Showchron as a mechanical machine utilizing relays, pulleys and belts instead of complicated electronic circuitry. This simplifies maintenance and service. We designed a 'Flip Top' feature into our editor to give you immediate system inspection and allow you to transport the Showchron in a compact easily handled package. (Try to put one of our competitors' editors in the back of a stationwagon.)

And with all these features, we worked just as hard to keep the price low. The American-made Showchron is under \$8,400, and we think that is an important feature, too. Stop by your nearest Showchron dealer today and look at all of our hard work. We think it will make yours a little easier.

MANUFACTURED BY

**Honeywell** \*

5303 Shilshole Ave. NW  
Seattle, Wash. 98107  
(206) 789-2000

\*Under license from the Showchron Group.

**SHOWCHRON**™

TM - Trademark of Showchron American Corporation  
U.S. PAT. NO. 3,912,383, other U.S. and foreign patents pending

## AVAILABLE THROUGH THESE DEALERS

**OSCAR H. HIRT, INC.**  
Philadelphia, Penn.  
(215) 629-8560

**ALEX L. CLARK LTD.**  
Toronto, Ontario, Canada  
(416) 255-8594

**M P L INC.**  
Memphis, Tenn.  
(901) 774-4944

**SHOWCHRON AMERICA CORP.**  
Beverly Hills, Calif.  
(213) 550-0800

**ZIA CINE-FERCO**  
Santa Fe, New Mexico  
(505) 983-4127

**FERCO**  
San Francisco, Calif.  
(415) 957-1787

**CINEMA SALES, INC.**  
Denver, Colo.  
(303) 777-7699

**VICTOR DUNCAN, INC.**  
Chicago, Ill.  
(312) 321-9406

Dallas, Texas  
(214) 369-1165

Detroit, Mich.  
(313) 371-4920



# Ask any film maker about prestige. He'll tell you about MPL.

Living up to our clients' expectations and needs—that's what MPL is all about. And we know what it takes to be good. That's why TV producers, documentarians and 16 mm film makers across the country depend on MPL.

We set the highest standards for our work. And our standards are reflected in everything we do. Send MPL your film and VTR's and see why we're so proud of our name.

**PROCESSING:** 7247 Color Negatives, B & W Reversal, B & W Neg/Pos, Color ECO and EF, Color Interneg/Pos, Reg. & Super 8, also:

**SOUND:** Original Recording, Rerecording, Mixing, Interlock Screenings, Sound Optical Transfers, Musical Libraries

**PRODUCTION SERVICES:** Editorial, Conforming A/B Rolls, Titling, Film Treatments, Film Lubrication, Scripting

**PRINTING:** B & W Interneg/Pos, B & W Reversal, Color Interneg/Pos, Kodachrome Prints, Ektachrome Prints, Printing Masters, Reg. & Super 8, also:

**SPECIAL SERVICES:** Color on B & W Videotape to Film Transfers, 35mm to 16mm Optical Reductions, 16mm Optical with Effects, 16mm to 8mm Reductions

**RENTAL, SALES, and REPAIRS:** Camera and accessories rented. Repair service and factory warranty work performed.

MOTION PICTURE LABORATORIES, INC., Piedmont Division,  
2517 South Boulevard, Charlotte, North Carolina 28203  
CINE-CRAFT LABORATORIES, 8764 Beverly Boulevard,  
West Hollywood, California 90048



**MOTION PICTURE  
LABORATORIES, INC.**

781 South Main Street  
Memphis, Tenn. 38101  
(901) 774-4944



# 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.

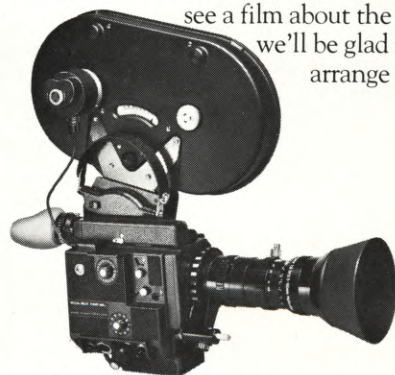
As an example of all-over EL ruggedness, you can carry it safely by the lens. Automatic threading and spool ejection are typical of its built-in, time saving convenience.

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.



Ehrenreich Photo-Optical Industries, Inc.  
Woodbury, N.Y. 11797 



# CINE 60 DOES IT AGAIN

## AND AGAIN



Whenever there's something new from Cine 60, you know it's going to be something that helps you do a lot more, for a lot less. And these new products are no exceptions:

**We've done it again with battery power.**

Now, there's a line of Cine 60 Power Packs to give you the same kind of rechargeable, nickel-cadmium performance and reliability as our popular Power Belts. Available in 6-30 volts and up to 7 ampere-hour capacity, to match the power requirements of motion picture cameras, portable videotape systems and sun guns. Use it on a belt, shoulder strap or tucked in a pocket.

**We've done it again with a very light light.**

Adjustable from spot to flood, our new, compact sun gun features a swing-away filter holder that's a boon to TV and documentary filmmakers. Accepting 150-, 250-, and 350-watt screw-in quartz bulbs, the Cine 60 sun gun comes in two models: "A," with removable handle, for mounting on camera or light stand and "B," with extra-long handle and storage for spare bulb.

**We've done it again with a very versatile pod.**

The new Combi Pod, designed especially for portable video and super-8 cameras, reflects over a decade of experience in making popular shoulder pods for cameras like Arri, Bolex, Eclair and many others. Weighing in at less than 2 pounds (!), the Combi Pod features comfortable rubber-cushioned shoulder and waist pads, plus a universal ball joint, for easy leveling. Folds quickly and compactly, for easy packing, too.

**We'd like to tell you more...** about these and the many other Cine 60 innovations. Call or write for catalog and prices.

## AND AGAIN.

CINE 60

INCORPORATED

630 Ninth Avenue, New York 10036 (212) 586-8782

© 1975, Cine 60, Inc.





## “TVC’s role in ‘American Enterprise’ didn’t end with dailies... TVC is now making thousands of release prints.”

“Once in a while, an idea taps unexpected enthusiasm. *AMERICAN ENTERPRISE* is one of those ideas. Turns out there’s a great hunger in schools across the country, as well as public television, for films on the nation’s economic history.

“*AMERICAN ENTERPRISE*, with Star Trek’s William Shatner as host/narrator-illustrates America’s economic history through five half-hour films plus a ten-minute introduction to the series.

“A national subject must have nation-wide coverage. Stock footage was a ‘no-no’. For *AMERICAN ENTERPRISE* that meant a shooting schedule through thirty states — in four months.

“Scripts required on-the-run candid one day and carefully staged and lighted historic reenactments the next. And always fast, fast, fast.

“As cameraman I knew I could rely on ECN 7247 and TVC’s amazing ability to get



the most out of the stock.

“But it was during post-production that TVC really came through. As producer, I faced the toughest editing schedule I’ve seen in 15 years of film making. And Dan Sandberg and his crew delivered beautiful answer prints *fast*.

“TVC’s role in *AMERICAN ENTERPRISE* didn’t end with dailies and answer prints. TVC is now making thousands of release prints for distribution by the Phillips Petroleum Company to most of the nation’s high schools and to public television. “Deliver six demanding films in seven months from ‘Go!’ It was my toughest film assignment to date! I couldn’t have met the schedule without TVC.”

Mike Jackson  
Independent Producer-Cameraman  
*AMERICAN ENTERPRISE* a production of  
Playback Associates, Inc. New York



'touch&go' -

# Sachtler

# touch&go



presents  
a new tool for the  
Professional Film-  
maker

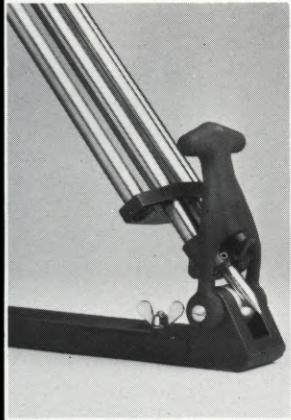
**Tripod:**  
The absolute best we ever made. Taking the roughest handling on all types of locations from the camera crew. Yet, all the movements always smooth. Utilizing a new torsion-free trapezium

design manufactured with the latest space-age lightweight metal combination of aluminium and titanium steel easy to make adjustments with extra large hard rubber butterfly lock knobs.

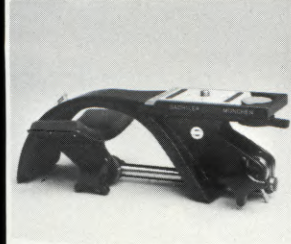


**Triangle:**  
Made of unbreakable hard rubber that will not slip on or scratch the smoothest surface. It is quick and easy to fold without removing from tripod, however, a very slight pull on the rubber locking

handgrips will separate the triangle from the tripod legs.

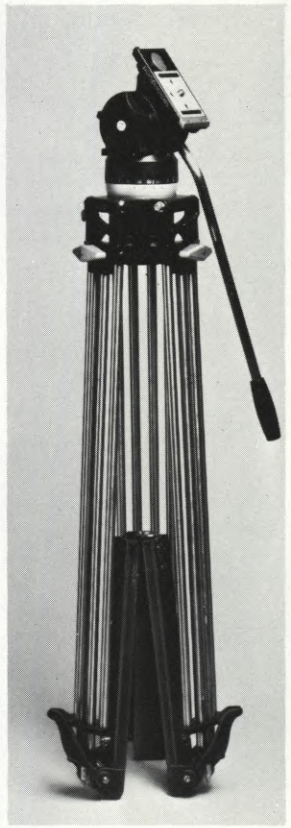


**Shoulder Brace:**  
A unique design with new quick release one touch camera mount. A new lightweight easy to fold shoulder support that will safely hold the camera in the folded down position.



**The Super Fluid Head:**  
With 16 combinations and 2 x 4 panning and tilting speeds. Allow ultra quiet and slow movements to extremely fast panning action covering all sporting events. The Touch and Go System is

the latest innovation of the forward thinking Sachtler Co. A new design approach making the basic fluid head tripod, triangle (spider) and shoulder brace much easier and faster to use.



The heart of the Touch and Go System is the entirely new quick-release one touch camera mount, ending forever the fumbling to mount camera to tripod head. Now, with one soft touch of your finger, the camera is released from head and quick mounted on shoulder brace - Touch and Go.

# touch&go 16

Sachtler



# Important announcement from Eclair

Eclair International, of Paris, France, is a division of Soremec-Cehess, a French company. They are the makers of French Eclair cameras.

Now, in order to be the exclusive distributor of French Eclair cameras in the U.S.A. and Mexico, Soremec-Cehess has created Soremec-Eclair U.S.A. Inc.

Soremec-Eclair U.S.A. is setting up two full service centers—one in Hollywood, the other in New York. Our Head Office address is 905 N. Cole Avenue, Hollywood, California 90038. Please call Los Angeles Information for the phone number. Our New York Service Center will open in January. We will let you know that address as soon as we can.

We have appointed Saba Camera Service official French Eclair service agent. Saba will be located at Soremec-Eclair's service centers—both in Hollywood and in New York.

We look forward to being of service to you.

**SOREMEC** U.S.A. INC.  
905 N. COLE AVE.  
HOLLYWOOD, CALIF.  
90038  
**eclair**



# MAKING IT IN FILM

## Verna Fields

*Verna, you're credited with making major contributions to hit movies like "American Graffiti," "Paper Moon," and "Jaws," to name just a few. How would you compare the editing on those pictures?*

I've been very lucky in my career, working with so many gifted directors. George Lucas, who made "Graffiti," has an excellent eye. All his shots are beautifully composed, and he conveys much of his information visually.

Peter Bogdanovich's "Paper Moon" has a particularly strong and emotional storyline. The father-daughter relationship and Peter's deft handling of it made that movie really easy to edit.

We thought we were going to have tremendous problems with "Jaws" because of the unpre-

dictable weather and water conditions. But Steve Spielberg delivered so much good footage that it became an editor's dream. By not having to compromise, and by being able to cut on the exact frames needed, we were able to maintain the rhythm and pacing so important to this kind of high adventure film.

*As a vice president of Universal, an executive creative consultant, a producer, and soon-to-be director, you must have a lot of young people asking you how to break into movies. What do you tell them?*

Producers, writers, even successful ones, as well as students are always saying they want to be directors and I look at many of their films which were usually made in 16 mm or super 8—some very good. There is great advantage in their working this way since,

without great cost or weighty equipment, they can learn composition, pace, rhythm and other essentials of filmmaking. If anyone needs help or information about film, I advise them to do what I do—call the local Kodak office. The people there are always helpful.

It's a business where you never stop learning. I was very impressed with Laszlo Kovacs. He's one of the top cinematographers. When he got the assignment for "Paper Moon," he hadn't worked with black-and-white film for a while, so he went out and shot about 12,000 feet of it. Testing different color lipsticks and costumes, and using different filters to find out which reproduced best in black and white. I think he deserves a lot of credit for the movie's look and style.

Getting back to our young filmmakers, when they're not out with a camera, I think they should be seeing movies and plays and doing a great deal of reading, not only novels, but plays as well, to learn about story construction and character development. There are a few people who seem to be born directors but most of us have to work hard at it, studying and learning from experience.

I'm getting involved in a million different areas—trouble-shooting, consulting on scripts, sitting in on all the Universal dailies, consulting with producers, directors, writers and executives. Every day I learn something new. It's a lot of hard work. But I can't think of anything more stimulating. Or more fun.



We've put together a booklet containing this and other interviews of interesting and talented people who are part of the fascinating world of the moving visuals industry. It also contains information about the role of Eastman Kodak Company developments and what they can do for you. For your free copy, write:

**Eastman Kodak Company**  
Dept. 640-YF, Rochester, N.Y. 14650

Name \_\_\_\_\_

Street \_\_\_\_\_

City \_\_\_\_\_

State \_\_\_\_\_ Zip \_\_\_\_\_



# ON LOCATION WITH "ISLANDS IN THE STREAM"

The key figures who made "PATTON" reunite in Hawaii to shoot the screen version of a posthumously published Hemingway novel

By HERB A. LIGHTMAN

## KAUAI, Hawaii

From beautiful Blue Hawaii, Pearl of the Pacific, comes the inevitable phone call — this time from an old friend, Ken Wales, Associate Producer of the Connaught Production (Paramount release), "ISLANDS IN THE STREAM". He relays an invitation from Producer Peter Bart for me to hop a plane and come on over to see what they're doing.

What they're doing is filming a posthumously-published novel by the late Ernest Hemingway and, for this purpose, they have reunited three of the key people responsible for the phenomenal success of "PATTON". These are the star, George C. Scott; the Director, Franklin J. Schaffner; and the Director of Photography, Fred Koenekamp, ASC.

It sounds interesting, so I hop a plane or two and eventually land at the Kauai airport, where Ken Wales is waiting. He clues me in on the production.

"ISLANDS IN THE STREAM" is the story of one Thomas Hudson on the island of Bimini during the first year of World War II.

Hemingway, then living in Cuba, began work on a long piece of fiction which would include the story of a twice-divorced, famous middle-aged artist living in the Bahamas after a successful career in Paris, and of his poignant relationship with his three young sons, and what happens to this man when he finds himself drawn into the conflict, away from his self-imposed security on the island.

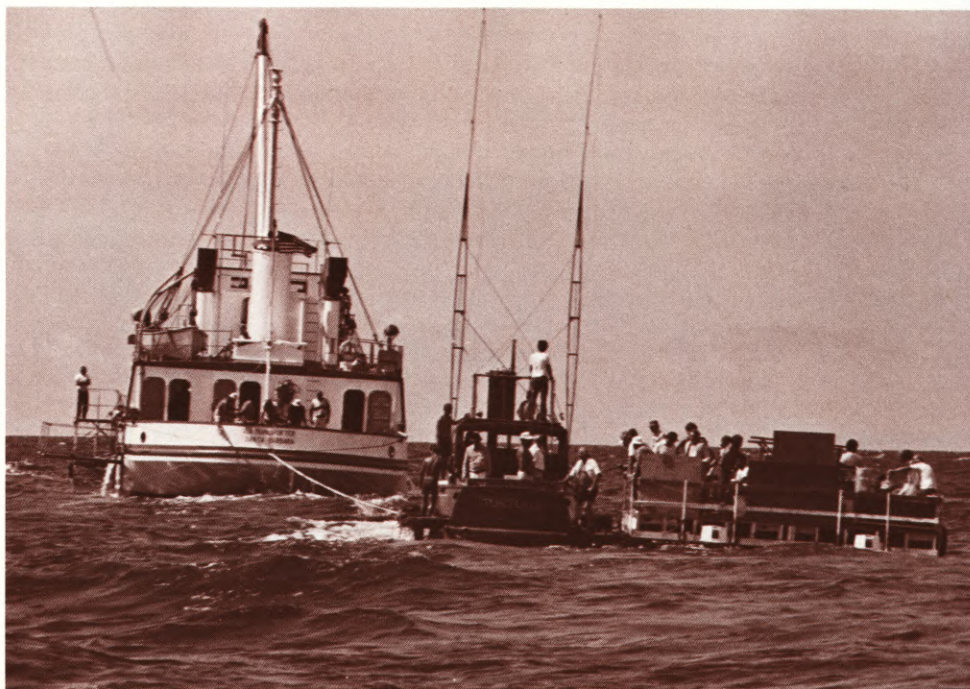
Because Hemingway found the ma-

terial in this semi-autobiographical book personally too painful, he put it aside in 1942. Later he extracted from it a novella, "*The Old Man and the Sea*", which was published in 1952, winning the Pulitzer Prize for Hemingway. The author's widow, Mary, with help from his longtime publishers, Scribners, did further editing on "ISLANDS IN THE STREAM" and it was published in 1970. Now a cast and crew numbering more than one hundred has been laboring on the island of Kauai for the past several weeks to bring the author's last work

faithfully to the screen.

Kauai, "the Garden Island", is considered by many to be the loveliest of the Hawaiian chain (although Maui is my own personal favorite) and it is the least populated, having only 30,000 inhabitants. This is fine for the filming, but doesn't offer many after-hours recreational options to the hard-working company personnel, several of whom are beginning to exhibit symptoms of "rock fever".

Kauai, created by violent volcanic upheavals from the ocean floor, is



(ABOVE RIGHT) Off the coast of Kauai, Hawaii, the "mother ship" (a small freighter) tows a 36-foot 1940s sports fishing boat, with "modular" platform attached, out to sea for filming of scenes for "ISLANDS IN THE STREAM". (BELOW LEFT) George C. Scott, in the starring role of the Hemingwayesque Thomas Hudson, fires at pursuers during night chase. (RIGHT) The chase takes on a fiery character as an explosion occurs.







(LEFT) George C. Scott rehearses a scene with one of the other actors on the dock of the village built at Kukuiula Bay. (CENTER) The "mother ship", a small freighter, tows Hudson's boat with pontoon modulators attached out into deep water of an offshore location. At least a third of the action of "ISLANDS" is played in or around the water. (RIGHT) Busy crew, most of whom were brought from Hollywood, sets up on the beach.

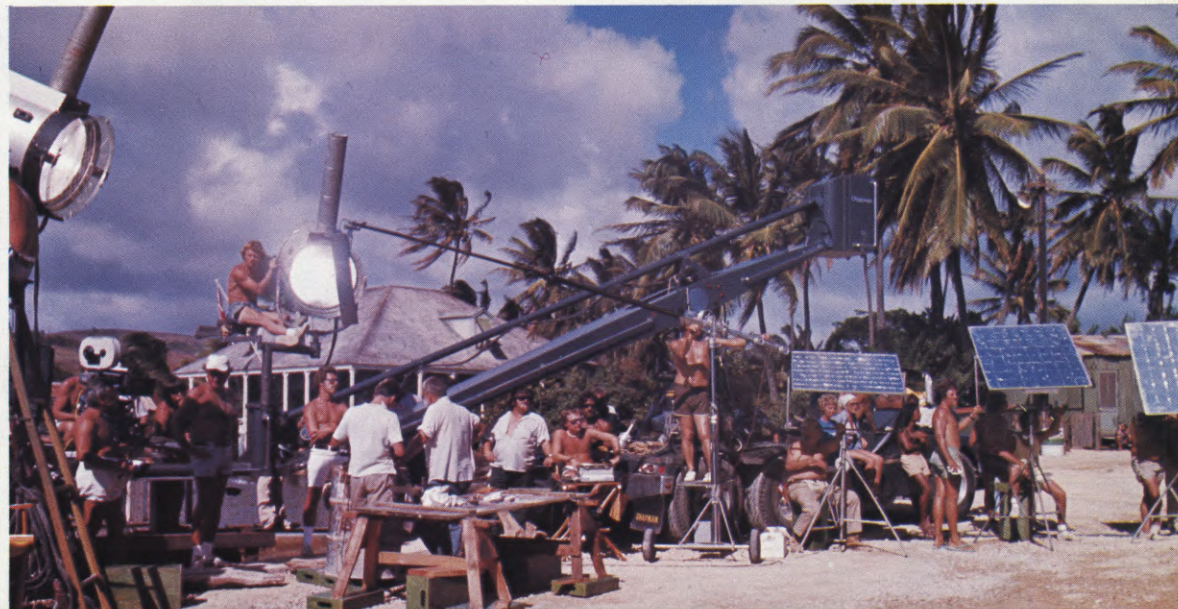
(LEFT) A "shark wrangler" waltzes a rubber dummy shark into shallow water for sequence in which one of Hudson's sons is supposedly attacked by the beast. (CENTER) Playing the role of Thomas Hudson, a famous sculptor who has dropped out of society, Scott works on metal sculptures in outdoor foundry. (RIGHT) Rock jetty in the distance and wooden dock in foreground were built by construction crew to convert Kukuiula Bay into a small harbor.



(LEFT) Boats are extremely important props in "ISLANDS IN THE STREAM". Several types were required, including supposedly Cuban Coast Guard runners, fishing and sports boats — and all had to be of the correct period — built prior to 1940. (CENTER) Sequence aboard Hudson's boat, in which his young son tries vainly to catch a huge Marlin. (RIGHT) Mary Hemingway, widow of famed novelist Ernest Hemingway, visits the Kauai location. When she saw Hudson's boat, she said it looked exactly like her late husband's boat, *Pilar*.



Using a combination of arc lights and reflectors as booster fill for the hot Hawaiian sun, the crew prepares to shoot a scene at the village ground up expressly for the film. Kauai was judged to be the ideal location because it had the right combination of remote terrain, dramatic sea and a natural harbor which did not require dredging to permit large yachts to navigate it.





sculptured with magnificent mountains and awesome canyons, terrain that is totally different from that of the low-lying coral-reef islands of the Bahamas, locale of the story.

"How are they going to reconcile that little discrepancy?" I ask.

"They're shooting around it," says Ken, using the time-honored Hollywood phrase.

After a quick check-in at the Kauai Surf Hotel, where the company is headquartered, we drive out to the location where shooting is in progress. It is a fair distance away at Kukuiula Bay, a compact natural harbor now ringed by a two-story hotel, an impressive-looking mansion (which is the British High Commissioner's residence), a long dock, fishing shacks and markets. Bobbing about in the harbor is a sparse fleet of pre-1940-vintage boats and a small seaplane.

When we arrive they are shooting a scene of George C. Scott, Susan Tyrrell and David Hemmings on the porch of the hotel's second story. Director of Photography Fred Koenekamp is up on the Chapman boom checking the angles of two Panaflex cameras. He waves a cheerful welcome when he sees me. Down below the street of the village is crowded with more than 70 extras in 1940's clothing, with some marvelous old cars putt-putting along.

I am introduced to Director Franklin Schaffner (quiet, calm, cigar-puffing) and Producer Peter Bart (young, wiry, intense).

I ask Bart about the apparent inconsistency of shooting the picture on a volcanic island, when the script calls for a coral reef island. "We faced a no-win situation whichever way we went," he explains. "We could have actually gone to the Bahamas, but we might have

faced political instability and hostilities there. Also, our star, George C. Scott, had made a picture there ("THE DAY OF THE DOLPHIN") and wasn't too anxious to return. On Barbados or Bermuda we would have faced other problems. Hawaii was appealing to us because of its political stability and ostensible friendliness (which doesn't extend to the economic situation; they drive a hard bargain here). But aesthetically the decision proved to be a right one because, even though we had to do an awful lot of building, the place looks like one would have wished Bimini would look. It's much more colorful and even more exotic. Kauai has an aggressively volcanic landscape, which added up to our biggest problem, but we have managed to avoid the sugar plantations and volcanic peaks and find some good locations on the island."

Despite the inevitable problems of shooting on location (having to wait hours for the sun to come out in sun-drenched Hawaii) and the shock of finding that everything here costs more than it was supposed to, he's happy with the way the shooting is going and the style that is beginning to make itself evident in the dailies.

Can he define the style of this film for me, I ask — knowing that "style" is sometimes a very elusive element indeed?

"Well, it is a love story," he says, "but since it also reflects Hemingway's world, there is a kind of toughmindedness to it, an eye for realism. On the other hand, it is a period piece and the look of the picture should reflect that. Frank and Fred and I all agreed that there should be a more austere attitude toward camera movement than we usually adopt. They wanted very much

— and I concurred with them — not to have the camera steal the show. This is really an *actors'* picture, and that attitude, I think, reflects itself in the way that it is being photographed.

"A very narrow line has had to be drawn, because, while it is basically a romantic picture, we did not want to go into enormously soft focus — that sit-back-and-watch-our-love-story sort of thing — because it is also a picture with a lot of action, and a sea movie. It's a very tough line to draw. I think you'd have to call the picture 'realistic-romantic'. It's not gauded and hyped up with a lot of strange color effects. It's not a schmaltzy romantic picture, but it's not a macho picture either. One of the things that we worked on most assiduously when preparing it was to present Hemingway sort of stripped of the macho conventions that people think of in terms of his work.

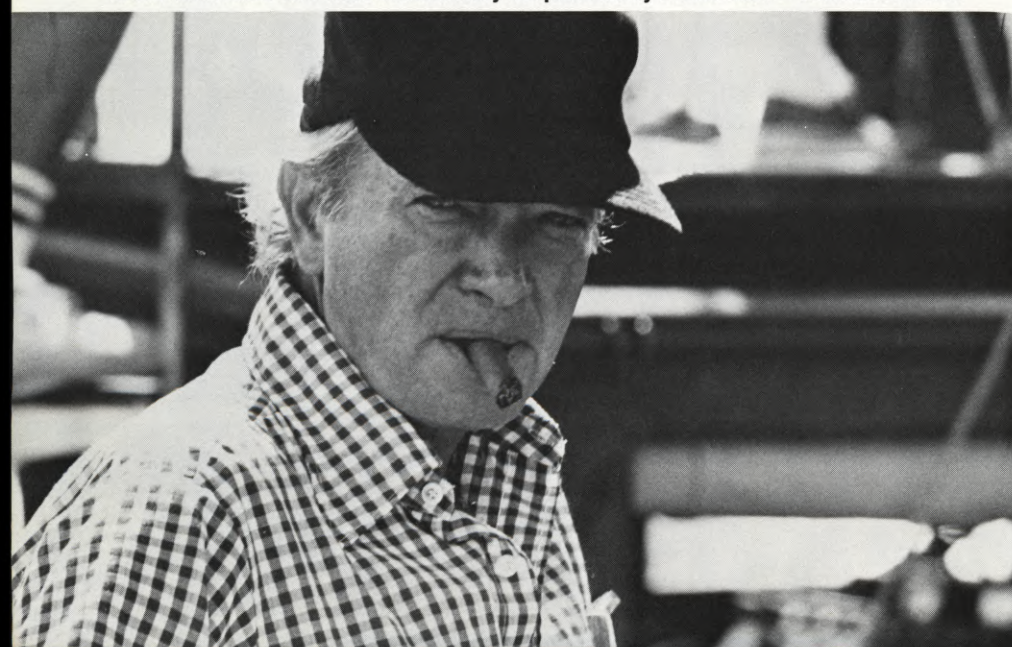
"I get sort of distracted by pictures where you feel that someone came in with a preconceived stylistic approach — a style in search of a movie. This film has a style, but that style is very understated, reflecting the personality of its director."

On the set I meet Production Designer William Creber, whom I haven't seen since he was building those crazy upside-down sets for "THE POSEIDON ADVENTURE". He very kindly offers to show me the other major sets that have been built for the picture, and off we go.

Our first stop is a giant warehouse-type of shed on somebody's farm. It has been taken over as the construction center for the film and strange things are in progress. A whole group of technicians is busily routing and painting "life-size" cut-outs of World War II British Spitfires. Outside, on flat terrain backed up by rolling hills uncannily suggestive of English countryside, several of the cut-outs have been set up. They have been designed so that a man can appear to climb up onto the wing and get into the cockpit, and so realistic is the effect, even from a relatively short distance away, that they look for all the world like actual three-dimensional Spitfires.

Back inside the shed, Creber shows me two small interior sets that have been built. One is the dormitory of a boy's school in New England (which Hudson's sons are supposedly attending when they receive letters from Dad), and the other is the orderly room of a small British air base. What is extraordinary about this latter room is the meticulous authenticity of the 1940's furnishings provided by Set Decorator Raphael Bretton — including war propaganda posters, British news-

**Distinguished film director Franklin J. Schaffner, whose credits include the original "PLANET OF THE APES", "PATTON" and "PAPILLON", puffs his ever-present cigar on location for "ISLANDS IN THE STREAM". His main problem on the assignment: to fill the vast space of sea and island with what is essentially the personality of one man — Thomas Hudson.**







At Kukuiula Bay, heretofore a small empty natural harbor on Kauai, an elaborate set was built to represent a village on an island in the Bahamas circa 1940. The buildings erected by the film company construction crew included a two-story hotel-bar, fishing shacks and open-air market (shown here), as well as an impressive mansion, supposedly belonging to the British High Commissioner, and a distinctive home for the main character situated on a lonely stretch of beach at Mahalulepu.

papers with the latest battle reports, canned goods of that era and period furniture.

We move on to Mahalulepu, an area north of Kukuiula Bay, where, on an isolated low cliff directly above the pounding surf, the home of Thomas Hudson has been erected. In exterior contour it is a "Sadie Thompson" type of house, but the interior is sparsely masculine, very precisely reflecting the personality of its inhabitant.

The house looks as though it's been there forever and it appears to be as solid as any real house I've ever seen. Yet Bill Creber tells me that every single exterior wall has been built "wild" for purposes of shooting. In fact, *all* of them could be removed at the same time and the roof would still stand, supported by posts. The magic of the movies!

I find Nobles' matter-of-fact description of these engineering miracles to be fascinating, and I mention the construction of the Hudson house: "Bill Creber tells me that all of the walls are wild and that the whole thing comes apart like a jigsaw puzzle."

"That's true," says Nobles. "The original conception was that we were going to have about three-quarters of the house wild, but then, after his survey, Mr. Schaffner requested that all walls be wild. So we changed the design from what was originally discussed and made it post and beam construction. What we actually have now is four corners with steel H beams running across the top to support the roof, and you could take every wall away, all at the same time, and it would still stand up with the roof supported. There are no load-bearing walls in the structure. In fact, we left a one-inch gap

between the walls and the actual ceiling, so that when the grips get ready to take a section of wall out they can move it out right away, without any binding or stress."

The ride out to sea where the shooting is to take place is a matter of several hours and we eat lunch on board. When we arrive at the spot, a motorboat pulls alongside the mother ship to run me out to the modular platform, which has Hudson's boat securely in its grasp. The large platform supports the entire crew, plus all the camera and arc lighting equipment.

The sequence to be filmed that day is one in which Hudson's young son fights a fierce battle with a giant marlin, trying to land the beast single-handedly before it eventually slips off his hook. However, there is a long delay before shooting can begin because the sun is playing peekaboo in the clouds, creating a severe matching problem. During the long wait, the star, George C. Scott, sits quietly inside the cabin reading a paperback book. There is no expression of impatience from him, no display of star temperament. A real pro!

By the time shooting can begin, the sea has grown rather rough and the large modular platform with its attached boat rises and falls on the undulating swells. No one on the crew actually gets throwing-up seasick, but they all look a bit green about the gills.

It is a long frustrating day, playing tag with the sun, and when we finally get back to the harbor the final mishap is enough to make a grown man cry. Someone neglects to secure the rope attached to the rubber marlin being used in the sequence and it sinks in 350

feet of water — too deep for a diver to retrieve it. There is no back-up duplicate.

"What will happen now?" I ask Peter Bart.

"Who knows?" says he, with a touch of Kismet in his tone. "That rubber fish is now probably mating with some tuna — so we can expect very rubbery tuna for the next few generations."

Throughout all the day's frustrations Director Franklin Schaffner has remained calm and cool, puffing quietly on his ever-present cigar. I had never met him before, but have long admired his work. I remember how he took what was basically a ludicrous *melange* of comic-strip elements and forged them into the original "PLANET OF THE APES", a distinguished, high-quality action-adventure film with certain fairly profound undercurrents. Then came the magnificent Academy Award-winning "PATTON", followed by the very laudable "PAPILLON".

I finally have a chance to talk to him in a quiet moment, and our conversation runs like this:

**QUESTION:** I'd like to ask you, first, about the vehicle itself: the novel "ISLANDS IN THE STREAM". In the past, most Hemingway works have not been considered basically very cinematic. I'm wondering about this one and how you've approached translating it into screen terms.

**SCHAFFNER:** First, I'd quarrel with your analysis that Hemingway's works haven't been cinematic in the past. Certainly "THE KILLERS" was a marvelously cinematic piece. Of course, one of the difficulties in  
Continued on Page 1258



# A CAMERAMAN'S DIARY ON PHOTOGRAPHING "ISLANDS IN THE STREAM"

By **FRED KOENEKAMP, ASC**

*Director of Photography*

Director Franklin Schaffner first contacted me a year ago and asked how I would like to again work with him and George C. Scott. Having enjoyed working with them both on the highly successful "PATTON", I looked forward to the new venture.

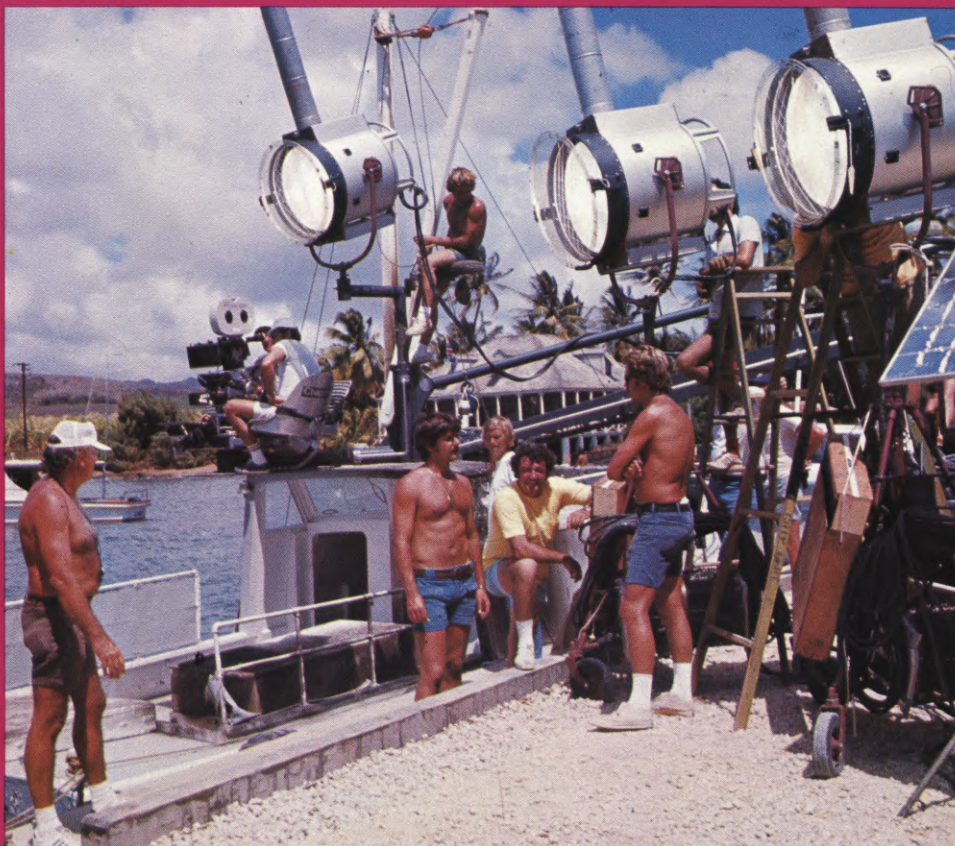
Like most big pictures, it was being well-planned much in advance of the shooting date, September 22. Between these dates I worked on two other projects and received the first draft of the script some time in April. Director Schaffner wanted my opinions on some of the physical problems connected with the photography of this picture. We were anticipating and preparing for those problems prior to the time of the actual shooting. At this writing I am very high on the picture. It has all the potentials of a really good picture.

#### **Some time in June:**

The Art Director, Bill Creber, with whom I had worked on "THE TOWERING INFERNO", called me at home to discuss the location survey trip he was about to take with the Production Manager and the Director. At this time no locations have been picked for the picture. We discussed at length such items as sun direction, day-for-night photography, the look of the types of boats to be used and, of most impor-

**The house of Thomas Hudson, the Hemingwayesque character portrayed by George C. Scott in "ISLANDS IN THE STREAM", was built on a private beachfront cliff owned by the C & H Sugar Company. This area provided a strip of beach and rock completely isolated from any other man-made structure, an important factor for establishing the "loner" personality of the main character. Five palm trees of the type found in the Bahamas were planted by the construction crew.**

Proof that even a highly experienced Academy Award-winning cinematographer can encounter some photographic challenges he has never grappled with before



**Arc lights were needed to provide balanced fill for the harsh Hawaiian sunlight on Kauai. The total lighting complement transported to Hawaii included six arcs, six 10Ks, eight Seniors, eight Juniors, twelve Baby Juniors, ten FAY 9-lights, many lightweight quartz lights and some small clip-on units for filming boat interiors. A 750-amp generator was also standard equipment.**

tance, the type of equipment we would need for working at sea a great deal of the time. It is most helpful when an Art Director will discuss anticipated shooting problems with the Cameraman. We talked about the sets he would have to build, even the direction they should face; that is, West, East, or whatever. All this pre-production planning is very important, as it makes the actual shooting so much easier, since always there are some unforeseen events to deal with during the actual filming.

They scouted locations in the Caribbean area, Mexico and Hawaii. After much heavy consideration by the group, Hawaii was chosen because, all things considered, it offered the best selection of shooting sites without spending a greater amount of money.

#### **JULY:**

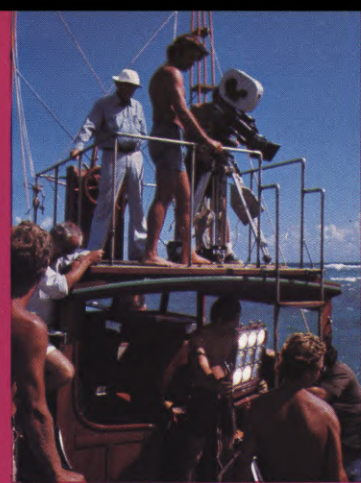
Schaffner called and told me we would be leaving for Hawaii to scout locations there some time during the first week of July. This now would be







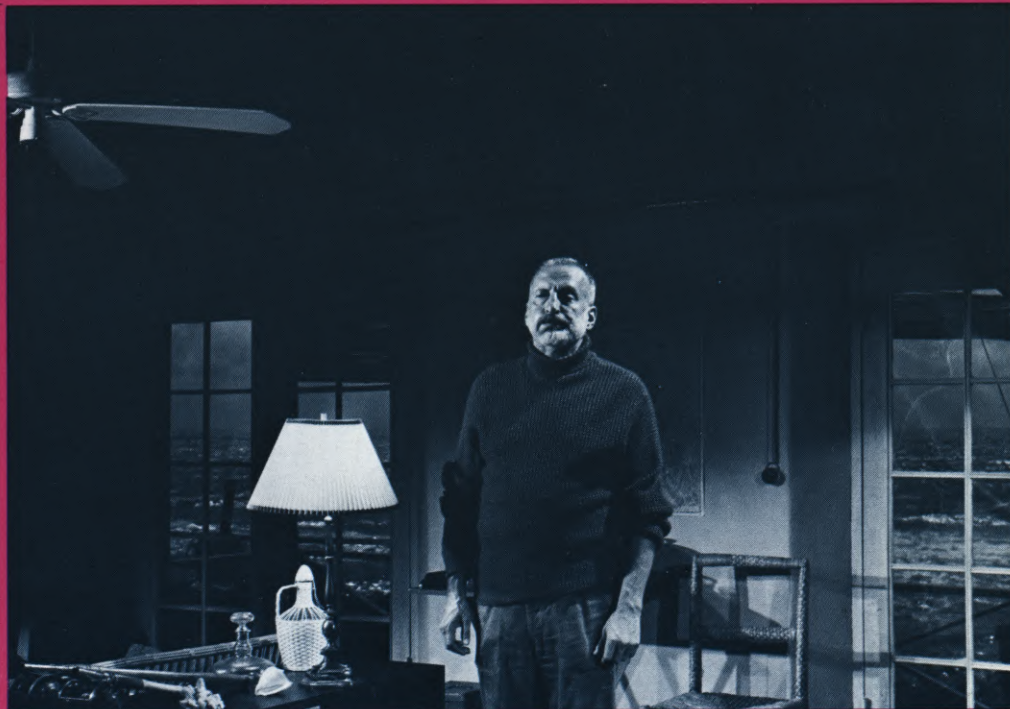
(LEFT) "Water, water, everywhere!" "ISLANDS IN THE STREAM" is a very water-oriented film, with at least one-third of the action taking place on the sea. The crew got used to having at least their feet wet most of the time. (CENTER) An arc is brought in to fill a shot on the flying bridge of Hudson's boat. (RIGHT) Shooting down from the bridge of the boat. A FAY 9-light is used to boost the natural sunlight.



my first chance to really get into the picture. I contacted my Gaffer, Gene Stout, and my Key Grip, John Murray, as they would be going over with me. The Director and Art Director had really pretty well selected location sites, or I should say, a choice of sites. There are to be about five major areas for shooting, as called for in the script — the main house, one dock area, a small harbor, an inland waterway and open sea areas. The house site, or Hudson House, couldn't have been better. It was located on a private cliff and beach belonging to the C & H Sugar Co. This area gave us a strip of beach and rock completely isolated from everything — an important factor for the main character in the story.

The small harbor is like a picture postcard. There is a rock jetty with a small cove behind it for small fishing boats; open sea on one side, a few small houses and open cane fields on the other. Here they would construct about six buildings with the 1940-period look.

Since a great deal of this picture takes place on a small 36-foot boat, it is also most important to find a boat of

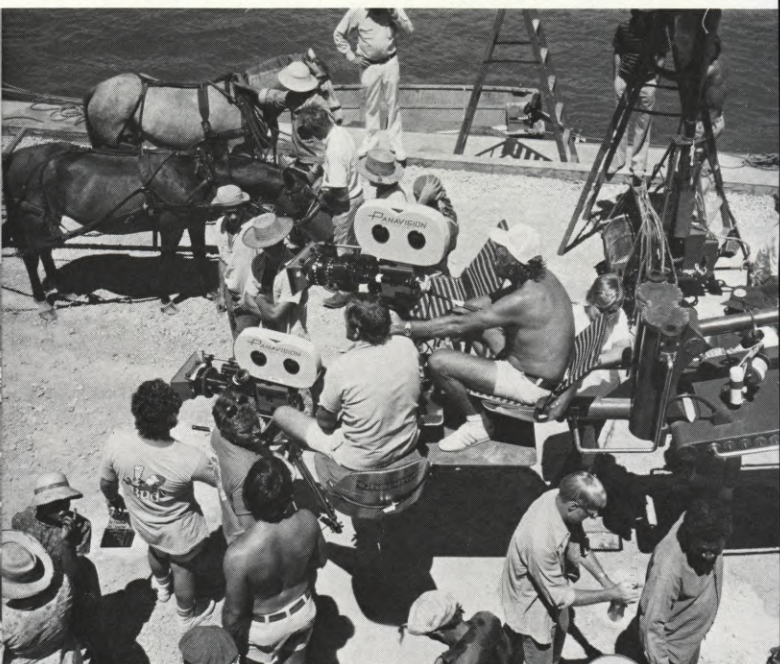
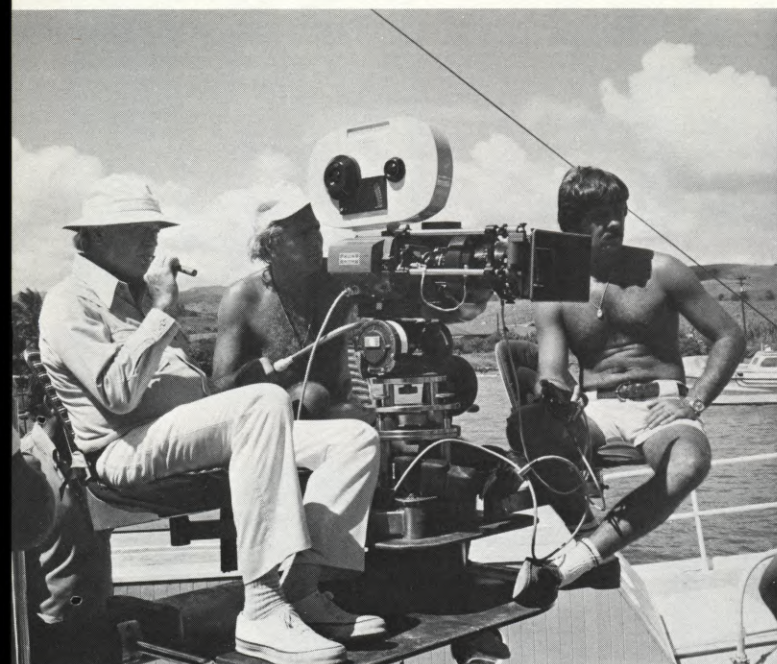


Shooting interior/exterior day-for-night, as in this scene, was a new challenge for Cinematographer Koenekamp, who had never heard of it being done before. After making tests, he arrived at a combination of 85-N6 1/4-inch gels on the windows, then added two more N6 neutrals and built up the foreground interior light to about 600 footcandles. Getting just the right balance between the interior and the hot ocean and sky outside was tricky, but it worked. Ordinarily such a scene would have to be filmed in the studio on a set placed in front of a rear-projection process screen.

(LEFT) Two 20 x 20-foot modules are attached to the boat to provide a large platform for cameras, lights and crew. Each unit is self-propelled. They could be used singly or bolted together (as shown here) to provide a larger platform as needed. In this photograph it can be seen that one module has been raised higher than the other by filling its pontoon tanks with air. (RIGHT) Hudson's boat at sea with a single 20 x 20-foot module attached to it.







**(LEFT)** Director Franklin Schaffner puffs on his cigar, as Director of Photography Koenekamp lines up a shot. Having worked together before on "PATTON" and "PAPILLON", the director and cinematographer had developed such a close rapport that a minimum of verbal communication was needed. This, according to Schaffner, freed him tremendously to concentrate on the actors' performances, rather than on technical details. **(RIGHT)** Two Panaflexes were routinely used at the same time to film exterior scenes, thus greatly speeding up the shooting.

that year which will be workable and look as much as possible like Ernest Hemingway's boat, the *Pilar*. Some time was spent looking in the Hawaii area, but almost every boat looked too modern. Finally, the boats (we needed two) were found on the West Coast — one at Point Dune and the other in the San Francisco area. Two boats were needed to give us a back-up boat in case of problems, such as engine failure. Also, and even more impor-

tant, on one boat we were to cut the top front hatch off so that I could have a better chance to light the interior of the cabin and maybe gain a better camera position for shooting.

We drove over most of the island of Kauai looking for beaches, reefs and an ocean area where we could shoot a swimming sequence, a shark scare and a boat running aground on a reef.

On the northern end of the island, where some of "SOUTH PACIFIC" was

shot, we found a long reef that gave us a quiet and not too deep area in which to work. The script calls for some underwater shots and this would be a good location to shoot them.

The Wailua River, winding down from the mountains of Kauai, was found to be large enough for our small boats. This is the area where the famous Fern Grotto is located. Branching off the river are three smaller inlets. In the script this is where Scott's boat is forced to hide. He is running refugees and the Coast Guard is after him. The big action sequence takes place here. I might add that it is a night sequence and when I first saw this location I could foresee many physical problems. The open sea area will be on the leeward side of the island, so the filming at sea should be somewhat smooth. Basically these are our shooting areas.

Director Schaffner and I now talked about the look of the picture. As the island of Kauai has such clean, clear air, beautiful, lush green foliage, plus very impressive clouds every day, we knew these combinations would make a picture with a great deal of contrast. So, one of the first questions from him was how to achieve a softer look. I had brought along a Panavision camera and three types of film — Eastman's new 5247, the old Eastman 5254 and the Japanese film, Fujicolor. I tested at both the dock area and the house on the cliff just for comparison of the three films. I made many day-for-night tests, as it appeared at this time that we might have a number of day-for-night scenes. Then, with each film, I tested different

**In a jovial mood, Cinematographer Koenekamp checks angles of two Panaflexes mounted side-by-side, but shooting in different directions. Two years ago Koenekamp shared a "Best Cinematography" Academy Award with Joseph Biroc, ASC, for their inspired photographic work on "THE TOWERING INFERNO".**





densities of fog filters, low-contrast filters, pola-screens and some nets.

Back at Paramount Studios, Director Schaffner, Producer Peter Bart, Head of Production Lyn Parsons, myself and some crew members viewed our tests. Believe me, a lot can be learned from this type of test. We ran the film twice, then we broke it down to what we liked best and ran that again. The Fuji film looked very good for the effect we wanted. The landscape had a softer quality than the Eastman Film gave. It also took away the sharp contrast from the seascapes. The new Eastman 5247 stock has a much finer grain that gives you a very sharp and contrasty picture. For some work this is an ideal quality. The older 5254 film is somewhat softer and has a little harder grain structure. With the use of fog or low-contrast filters you could achieve about the same look the Fuji film gave.

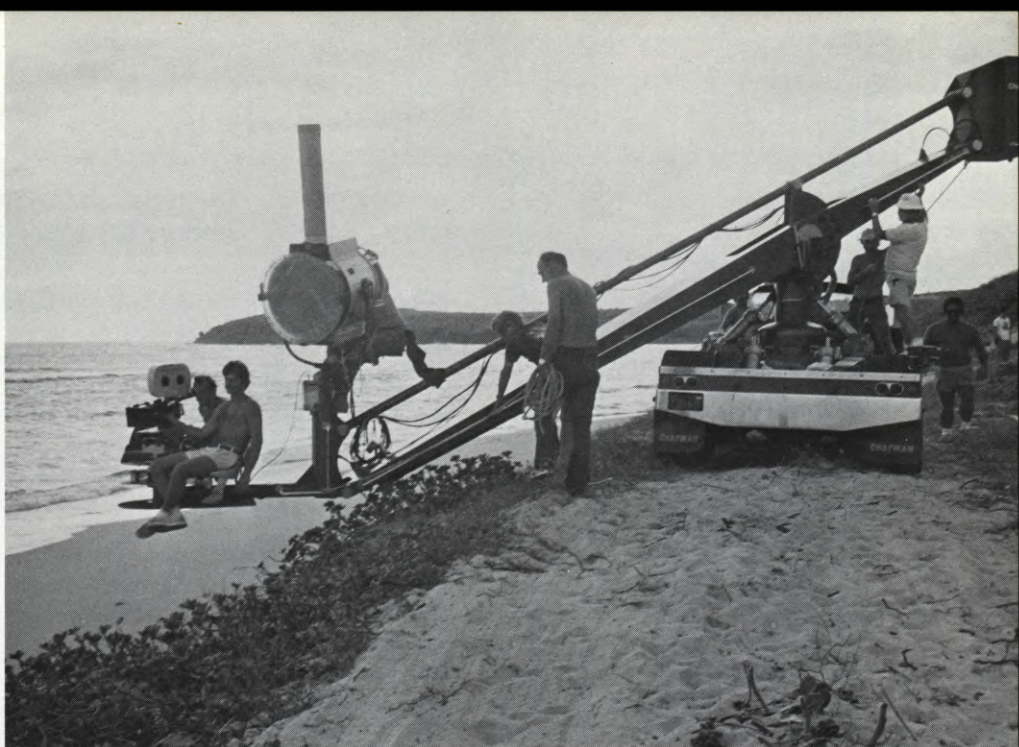
At this time I found we could not obtain Fuji film. It is less expensive than Eastman, so many television shows were using it and the distributor could not guarantee us a large quantity of film. After many discussions with Schaffner, I decided to go the same way I did on the picture "PAPILLON" and use Eastman 5254 with a 1/4 fog filter. On the interiors I will also try for a softer look, but on the interior-to-exterior shots I will keep a balance between the two. I don't want to burn up the exterior and lose the vistas we are on location in Hawaii to attain.

#### **THE MIDDLE OF AUGUST:**

It is now time to select the camera equipment and determine the Electrical and Grip equipment. For the Electrical, we will use all the lightweight quartz lights. We will have six Arcs, six 10Ks, eight Seniors, eight Juniors and twelve Baby Juniors, ten FAY 9-lights and some clip-on small units for boat interiors.

Grip equipment will include one Chapman Titan Boom, one Fisher Crab Dolly, one Western Dolly, 100 feet of dolly track, 30 feet of parallels, some large nets and silks. We also ordered correction filters of 85-30 and 85-60 in 1/4-inch-thick plastic sheets, sizes of 5 x 8 for use outside windows to correct from incandescent to sunlight and also to use less light inside. I had to use the heavier sheets, as there is a constant wind on the island.

It has been decided that we will have two shooting cameras. With so much exterior work and many action scenes, we can pick up valuable shots with a second camera. We are going to use Panavision equipment. This equipment is, I'm sure, the very best. I selected the new Panaflex camera



Chapman Titan camera crane is used to lower the camera (with arc light hitch-hiking) below the level of the road. In addition to the Chapman crane, the company shipped to Hawaii one Fisher Crab Dolly, one Western Dolly, 100 feet of dolly track, 30 feet of parallels and some large nets and silks. Due to the isolated location of Kauai, all equipment that might be needed had to be anticipated in advance and shipped from the Mainland.

because of its light weight and size. It will be so much easier to use this camera on the boats and in the river areas. We will have two Panaflex cameras and one Arriflex camera for non-sound hand work. (The hand camera has long been one of my favorite tools.) Panavision has just completed a new model 10-to-2 (50mm-500mm) zoom lens. It has new glass for better definition and a new type of coating. It is also lighter in weight than the older model. I'm very pleased to have this lens. Also the new 5-to-1 (40mm-200mm) zoom lens is the real work horse. It will be on the camera most of the time. In addition, I will have a complete set of regular lenses, i.e., 30mm, 35mm, 40mm, 50mm, 75mm and 100mm. All Panavision equipment is interchangeable, so there is no need for anything else.

#### **AUGUST 25:**

This is my starting date on the film. The week of August 25-to-29th was spent making sure all the equipment we need has been or will be shipped. There is one sequence in the picture that calls for one of Hudson's (George C. Scott) sons to catch a large marlin, so on the week of Sept. 2, I took two camera crews to Kona, on the "Big Island" of Hawaii, and had high hopes of catching a huge marlin. Let me explain that one camera was for blue-backing matte shots; the other (with a long lens) would be for tighter cutaway shots. At a later date we will do blue backing on a stage where we will put a boat mock-up in front of the blue

screen with the actors in it. We hoped in this manner we would get the tie-in shots of the fish jumping and the ocean movement in the background. The two pieces of film would be put together at that time by Frank Van derVeer, Photo Effects.

The blue backing will be a new challenge to me. Previously, as a Production Cameraman, I have had with me such people as Bill Abbott, the Special Effects Cameraman who did such wonderful work on "THE TOWERING INFERNO".

The fishing trip was a complete bust — one small 203-pound marlin that never jumped once. After seven long days of vainly trying to find the marlin we all hoped to hook, we still need fishing footage.

Back again on the Island of Kauai, I made last-minute set checks and conferred with Director Schaffner on numerous last-minute details. The Art Director and construction crew have really done a magnificent job on the sets. The 22nd of Sept. draws closer. Crews from every department are working feverishly on final important details. The camera equipment will arrive on the 16th with Ed Morey, my Asst. Cameraman, and Tom Laughridge, my Camera Operator. We will test all equipment and be ready for the starting date.

#### **SEPTEMBER 18:**

Mr. Schaffner asked me if it would be possible to shoot much of the night work at the Hudson house set day-for-  
**Continued on Page 1262**



# RE-CREATING ON FILM THE WORLD OF ERNEST HEMINGWAY

The problem was not simply one of constructing a group of interesting buildings, but an appropriate environment for a most unusual character

William Creber, Production Designer for "ISLANDS IN THE STREAM", includes in his long list of credits such ambitious and widely varied films as "PLANET OF THE APES", "JUSTINE", "THE POSEIDON ADVENTURE" and "THE TOWERING INFERNO", to name just a few.

In the following interview he explains some of the problems and challenges peculiar to the designing of sets for "ISLANDS":

**QUESTION:** On the face of it, one would assume that "ISLANDS IN THE STREAM" is not nearly as complex from the production design standpoint as some of the other films you've designed — most notably "THE POSEIDON ADVENTURE" and "THE TOWERING INFERNO". Is that statement true, or is there more to this picture than meets the eye?

**CREBER:** Well, the problem of my position as Production Designer is that I take every assignment seriously and

*like to do everything as well as possible in the time that's available. I think I've worked as many hours on this picture and just as hard, trying to do it as meticulously as it can be done. On pictures like "POSEIDON" and "INFERNO", there is more time consumed in working with other departments — but you are given a lot more time to prepare. In the final analysis, it's just a full-time job, no matter what the picture is. That applies to TV also, because the time you have is much shorter and there are days when it's impossible to even work, for the simple reason that there is no script. Actually, it's quite possible that I've taken this picture too seriously — in terms of my own feelings, that is. You get involved. I love to do the so-called "action" and science-fiction pictures because they represent such a challenge, but the real fun sets to do are those that relate to people personally. That's what has made this picture really interesting. The sets are a statement of the person who occupies them.*

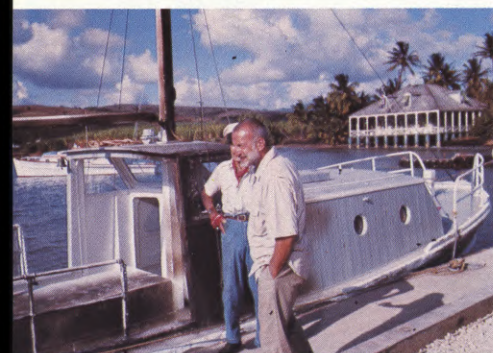
**QUESTION:** Are you referring to the character of Hudson played by George C. Scott — a sort of semi-autobiographical Hemingwayesque character?

**CREBER:** Yes. You might well ask how the Hudson house came to look like it does and be placed where it is. Well, we thought about every inch of that building. With all the space that we had to play with, you can't imagine the care that Franklin Schaffner, the director, took in placing it — shifting the location a couple of feet in order to align it perfectly to the vistas and orient it to the ocean and put it on a level where it could become part of the landscape. Even the positions of the windows were meticulously planned. It's fun to work that way.

**QUESTION:** What about the physical choice of the location, that low bluff just above the sea?

**CREBER:** There were a number of

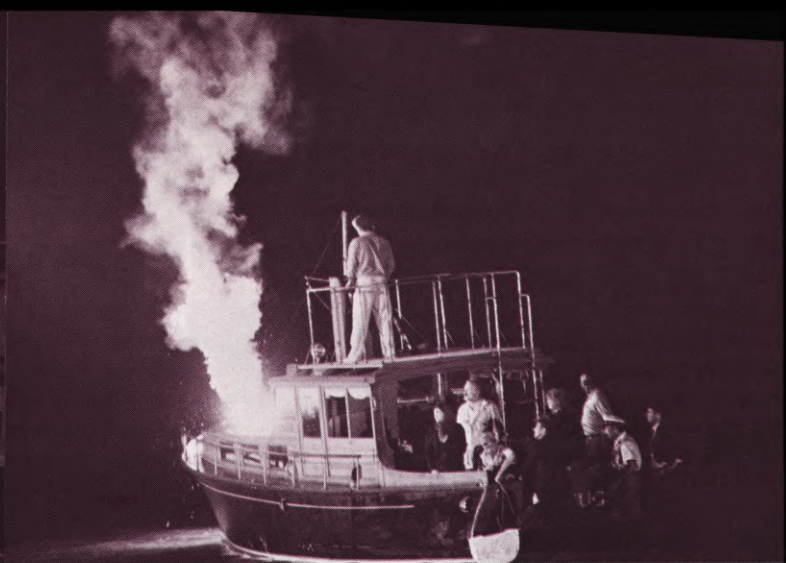
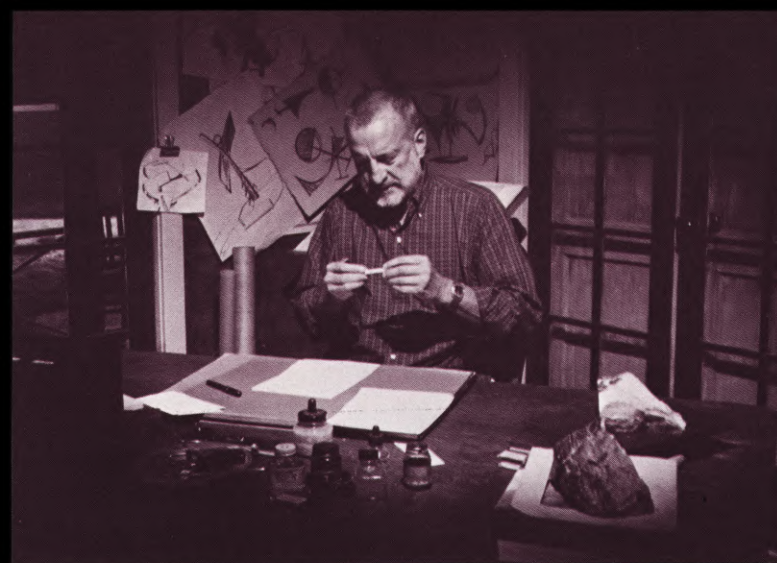
(LEFT) At Kukuiula Bay on Kauai, the principal locale for "ISLANDS IN THE STREAM", George C. Scott waits to play a scene. In the background can be seen the elaborate mansion of the British High Commissioner — like all the rest of the buildings, constructed from scratch by the film's construction crew. (CENTER) The village at Kukuiula, with the two-story hotel-bar in the foreground. (RIGHT) A "reverse angle", showing the hotel-bar from the opposite direction.



(LEFT) The home of Thomas Hudson, portrayed by George C. Scott. From this angle the mountain is very much in evidence, a physical feature totally out of character with the story's locale, a low-lying coral island in the Bahamas. (CENTER) From the opposite angle, the volcanic mountain is out of frame and the home appears to be in the correct locale. (RIGHT) Porch overhang extending entirely around the home allowed for any of the "wild" exterior walls to be removed, with the porch tarped in to provide a place for the camera.







(LEFT) Hudson's home, with all of its meticulously selected furnishings was part of a carefully thought-out total environment for the Hemingwayesque character portrayed by Scott. (RIGHT) Hudson's boat, shown here was the result of an extensive search by Creber through all the harbors and marinas of California and Hawaii. Finally, seven matching boats of the proper period were located. The two best were bought and shipped to Hawaii, where they were refurbished to closely resemble Hemingway's boat, *Pilar*.

*physical requirements we had to keep in mind. We wanted it to look as much like the geography of the Bahamas as possible, which meant keeping it low and finding ways to mask the mountains. Then, also, it had to be rather isolated — the kind of lonely place favored by a man who might be a hermit type, without being a complete recluse.*

**QUESTION:** I'd say that you certainly found the perfect site. But what about the other locations — the little harbor, for example?

*CREBER:* That one gave us lots of problems. We looked all over the Bahamas, trying to find the ultimate location — which can get really frustrating when the company gives you the

*time to do it and you're trying to be meticulous. You look and look and look and you ask yourself: Is this place really going to give us something so unique that it's worth taking an entire shooting company there? You really have a battle with your conscience. And there are practical logistical questions that must be answered: Can you house your people adequately within a reasonable commuting distance? Will people really work for the month that it's going to take, in that kind of weather, under those living conditions? Will it be possible to provide adequate transportation? Add to that the fact that on Kauai there is very little to do after hours. Even though everyone is too tired to do very much, the fact that beyond that fence there is nothing can*

*be kind of demoralizing. All these things must be taken into consideration when choosing locations, not just whether the site will look right on film.*

**QUESTION:** How did it happen that the decision was made to shoot in Hawaii, rather than, let's say, in the Bahamas, where the terrain is much more faithful to that described in the novel?

*CREBER:* Ken Wales, the Associate Producer, had done a quick survey in Hawaii while we were scouting possible locations in the Bahamas. We explored Bimini in the course of our research and the picture could probably have been made there, but it would  
Continued on Page 1269

(LEFT) From the verandah of the High Commissioner's mansion, the hotel-bar can be seen across the bay. (RIGHT) The village constructed at Kukuila continues down a rock jetty and consists of an open-air fish market and other structures. These were purposely designed as open pavilions in order not to block off any more of the seascape than was absolutely necessary. Having come such a far distance on location from the Mainland, the company was determined to get the most production value out of the locale.



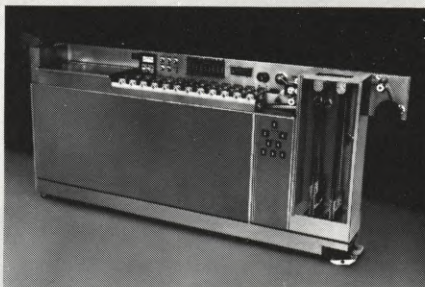


# Forget it.



Forget processing headaches with the new Houston Compac-Line™ processors. Stop worrying. Take advantage of 46 years of know-how that goes into every machine. Relax, knowing you will obtain optimum quality results — due to Houston's extremely precise control of all processing times, temperatures and strength of solutions. These advanced machines feature Houston's exclusive demand drive.

The new Compac-Line includes a broad range of continuous machines, all with built-in expertise and left-out processing problems. Models are available for a wide range of films, film sizes and processes. Each



machine requires less than 22 sq. ft., of floor space, stands just 55" high and is daylight operated.

Need more information? We'll send you all you want to know. Houston Photo Products, Inc.,

655 E. 20th St., Yuma, Arizona 85364,  
Phone: (602) 782-3677. Telex: 669-450.  
European Sales & Service:  
Jos DeJonghe, 8500 Kortrijk, Belgium.  
Phone: 56/2117.10. Telex: 85.185

**HOUSTON**  
PHOTO PRODUCTS, INC.  
YUMA, ARIZONA

Inset photo: New Compac-Line processor for ME-4/VNF-1



# 18th consecutive year!

# Again, more Award Winners\* filmed with Arri cameras than all other makes combined!

\*8 out of 11 Awards and 2 out of 3 Honorable Mentions

Congratulations to all—and our special acknowledgement to these Award Winners who filmed with ARRI.

18th  
Annual Industrial  
Film Awards

conducted by  
Industrial  
Photography  
Magazine

**Arizona Medical Center**  
"TOTAL WRIST ARTHROPLASTY"  
*Producer/Director*—Russ A. Hart  
*Cinematographer*—Barry M. Iselin

**Cayman Corporation**  
"OIL FROM THE AMAZON BASIN"  
*Producer/Director*—William P. Hoopes  
*Cinematographer*—David Harford

**Chrysler Corporation**  
"XM1 ROLL OUT"  
*Producer*—Thomas McNamara  
*Director*—Ted H. Horn  
*Cinematographers*—Greg Carver, James Lafer, Jr.,  
William Reed, John Hartigan

**Honeywell Inc.**  
"POISE"  
*Producer*—William J. Steinbicker  
*Director*—Robert C. Hammel  
*Cinematographers*—Charles Bowen, Ray Roberts

**Martin Marietta Corporation**  
"SHARE OUR DREAMS"  
*Producer/Director*—Ralph Bevins  
*Cinematographer*—M. A. McDaniels

**McDonnell Douglas Corporation**  
"THE NEW GENERATION"  
*Producer/Director*—Milton Moline  
*Cinematographer*—Bill Conron

**Trans World Airlines**  
"MANAGEMENT OF IN-FLIGHT ILLNESS OR INJURY"  
*Producer*—John G. Armstrong  
*Director*—Tom Kinsey  
*Assistant Director*—Don Greene  
*Cinematographer*—Jack Sands

**U.S. Department of Interior, Mining  
Enforcement & Safety Administration**  
"SAFETY ON THE MOVE: TRUCK HAULAGE SAFETY"  
*Producer*—Samuel R. Sappo  
*Director*—Timothy W. Kirby  
*Director of Photography*—Anthony V. Mantia  
*Cinematographers*—Keith A. Gaskill, Daniel L. Gardner



# ARRI

ARRIFLEX COMPANY OF AMERICA



# THE IMPOSSIBLE TAKES A LITTLE LONGER

By **KEN WALES**

Associate Producer

The problem: to create a realistic representation of a low-profile island in the Bahamas thousands of miles away on the ruggedly mountainous volcanic island of Kauai, Hawaii.

Impossible!

Perhaps — but the word “impossible” is not one that is recognized in the lexicon of professional film production, with its almost limitless capacity for creating illusion. That which others would consider “impossible” is, to the skilled film technician, simply something that takes a little longer to achieve.

Most of the action of Ernest Hemingway's novel “ISLANDS IN THE STREAM” takes place on Caribbean islands during pre-World War II days. In translating this story into screen terms, the obvious approach would have been to actually film it on location in the Caribbean. However, for several practical reasons, the studio and others involved felt that it was important to try to find a locale that would *simulate* the Caribbean, rather than actually *be* the Caribbean.

As soon as that conclusion was reached, I immediately set out to see if I could find some feasible alternatives. I asked myself: “Where in the United States is it possible to find the correct physical atmosphere for this story?” The only place within actual U.S. territorial limits that might possibly do was Hawaii, so I went on a five-day location-scouting rampage through the Islands, trying to ascertain what might work.

Having produced several features and done some directing, I simply asked myself, in the course of my search, what I would look for if I had to make this picture myself, and in this way I was able to align my response with the requirements of the producer, the director and the production designer, and try to see if I couldn't put it all together.

Sure enough, it finally did come together — though not easily. As the result of a cooperative effort, I was able to find on the island of Kauai all of the items that would go together and that would work. To put this story realistically on the screen we needed three essential elements. We needed a village on a bay; we needed a long dock; we needed a more isolated locale where the home of the central character, Hudson, could be built. We did manage to locate suitable areas for these key elements on Kauai — but there was yet another requirement that posed a more serious problem.

The climactic sequence in the script is a boat chase through what was originally written as the Everglades of Florida, but because the bayous, swamps, submerged logs and hanging cypresses of the Everglades are so distinctive in appearance, there was no way this sequence could have been filmed without actually going to the Everglades — an expensive haul of many thousands of miles for an entire film production company.

Realizing the impracticability of such a far-flung move, we then really had to “put our thinking caps on”, as the saying goes, in order to stage our boat chase with a minimum of moving from a central base area. At that point we began to realize that the Wailua River on Kauai bears a close resemblance to inland rivers that exist on certain Caribbean islands — Cuba, for instance. Storywise, it seemed just as logical for Hudson to put his refugees ashore in Cuba as in the Everglades of Florida, because he simply wanted to give them an escape route over which to make their way to freedom. So Cuba (and the nearby Wailua River) became an acceptable compromise in our script.

On Kauai we found Kukuiula Bay, a small natural harbor where we could build our Bahaman village, with its two-

story hotel-bar, the British High Commissioner's residence, fishing shacks and markets, on a rock jetty stretching out to sea. When I took pictures of this bay for my location survey, I could see that it was just the right size for filming. It was big enough to have some importance and accommodate several boats and a small seaplane, but small enough so that we didn't have to spend huge sums of money constructing an entire city around it.

After considerable searching, the perfect site for Hudson's house was found — an isolated virgin bluff overlooking the sea at Mahalulepu.

One of the most basic problems of a film company shooting on location is becoming part of the local scene. Some companies tend to forget that they are coming into somebody else's town — somebody else's backyard, so to speak — and that not everyone welcomes motion picture-making at close range. Even though a film company on location brings a tremendous surge of money into the local economy in the form of payment for housing, food, general supplies, construction materials and the salaries of local people hired for the production, it's very important to establish a positive relationship with the people who live there.

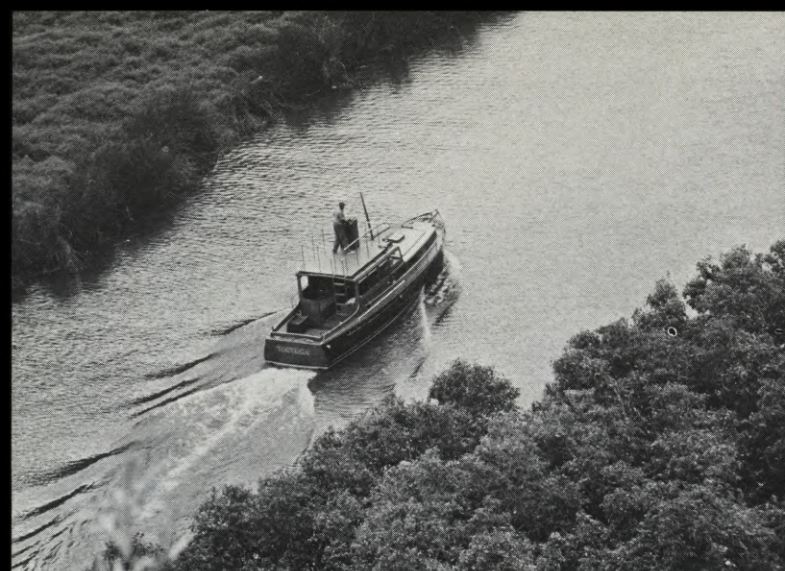
There is also the problem of working out arrangements and getting permits to shoot on State property and in National Forest preserves. Some of these permits, for reasons of environmental and ecological protection, become very difficult to obtain in many cases, and we had to make an entire presentation to State of Hawaii officials to convince them that we would put everything back exactly as we found it. We could not leave any of the buildings. Everything had to go right back from sand to sand.

With only 30,000 full-time residents,

**Water “sports” were on the daily schedule for the crew of “ISLANDS IN THE STREAM” during almost the entire time that they were working on Kauai. Some jokingly complained that they had no chance at all to get completely dry. In these photographs (LEFT) and (CENTER) Director Franklin Schaffner, maintaining his hat and his dignity, directs scenes from the best vantage point — next to the camera. (RIGHT) The boom man “fishpoles” the microphone from a parallel submerged in the water.**







**(LEFT)** Hudson's boat, *Tortuga*, makes its way up an inlet of the Wailua River on Kauai. The climactic boat chase sequence, originally scripted for the Everglades of Florida, would have necessitated a time-consuming and tremendously expensive move of the entire company over a distance of thousands of miles. To solve the problem, the sequence was rewritten for Cuba and the river on Kauai doubled nicely — until a storm broke the river dam and left the boats stranded in mud. **(RIGHT)** Camera and sound crew chest-deep in the river, along with the actors.

Kauai is the least populated of the Hawaiian Islands and its facilities, except those for tourists, are limited. In an isolated location of that sort, you can't just reach out for whatever you might need, whether it be an extra character actor or a donkey cart. You have to plan for those things well in advance and include them in your budget, in order to prevent as many unpleasant surprises as possible.

Any time that you work on water — and about one-third of our filming involved water — you are at the mercy of a capricious natural element and it can drive you right up the wall. Consider what happened to us. This year the rains did not come to Hawaii during the usual rainy season. It was unusually dry during the initial period of our shooting and this was very convenient, but when the rains finally did come we had rain constantly for several days. We were working up at the head end of the river where it is quite shallow, but the water was high enough to permit a certain amount of draft for the boats we were filming. However, the surge of the river, being swelled by the rain, burst the sandbar dam between the mouth of the river and the ocean, with the result that the water level dropped two or three feet. Our boats were left sitting high and dry in the mud. Immediately we had to try to dam up the mouth of the river again and this took phone calls to the Governor's office, to the Mayor, to the County Engineer and to various other people who were off the island in Honolulu. All this was done at midnight in order to try to rescue whatever water we could for the river.

The moral to the story is that whenever water work is scheduled, a very large contingency in the budget should be provided for "acts of God",

the various natural disasters that can occur.

Perhaps the most important element in overseeing film production work is trying to keep your fingers on the pulse of the myriad of things that are happening simultaneously. You have to provide for the needs of the director, while holding a certain rein on him by reminding him that limitations (especially in terms of budget) do exist. You should be able to offer him alternative ways of shooting, so that he can get what he wants, while working within those limitations. Most important of all, you should have conferences as often as time and exhaustion permit, during which you can sit down with the

director, the assistant director and the production manager and discuss plans for forthcoming operations. It pays to take a few minutes at the end of each shooting day (and on weekends, too) so that everyone will know what's happening.

From my point of view, as a production person, I feel that it's well worth taking this time and making the extra effort in order to seek perfection in all of the endeavors that we undertake when we are producing a picture. Every person on the crew must see to it that his particular craft is pursued as efficiently as possible — given, of course, the extenuating circumstances you encounter when shooting on location. ■

**Producer Peter Bart and Director Franklin Schaffner discuss upcoming scenes — and possible problems ahead — between setups. It is of utmost importance for the key personnel to hold frequent meetings to stay on top of problems — each night after shooting preferably and on weekends. Bart, long a top production executive at Hollywood's major studios, makes his debut as a line producer on "ISLANDS".**





# FIELD MAINTENANCE FOR YOUR MOTION PICTURE CAMERA EQUIPMENT

The proverbial "ounce of prevention" is far more important than a "pound of cure" in protecting your costly filming equipment

By DIANNE T. SABA

In the ten years that I've been maintaining motion picture equipment, I've heard the same question from the cinematographer over and over again: "What can I do in the field to keep my equipment as trouble-free as possible?" The first thing you can do, friends, and the most important thing is to keep your equipment clean.

There is no way to overstress the need for keeping your camera spotlessly clean. A thousand problems can develop which relate back to that speck of dirt in the wrong place. The following locations are particularly vital to keeping your equipment in good working order:

**Aperture plate:** Check for dust, hairs and emulsion buildup prior to the first shooting and, if possible, after each magazine change. To clean use only a wood orange stick, a clean soft cotton handkerchief or chamois.

**Claw:** Use a small brush, being extremely careful not to push the claw into the camera as you could knock it off the claw spring (and that would require in-shop repair).

**Stationary side film guides:** A wooden toothpick works well for getting the crud out of the crevices.

**Spring loaded film guide.** Sometimes dirt build-up can prevent the movement of the spring which could hold back the top or bottom of the film guide and cause the film to float. This, in turn, causes side-to-side unsteadiness. Dirt can usually be removed with a toothpick.

**NEVER USE METAL ON ANY OF THE ABOVE.**

Optical systems, lens surfaces and mirror surface should never be touched with the fingers.

**Mirrors:** Some can be cleaned with lens tissue or a camel hair brush using care. However, with an Eclair NPR, it is most important to note that you never touch the mirror surface with *anything* — use a bulb syringe.

**The lens itself:** Do not clean your lens every time you use it. You must clean your lens, however, if it has finger prints, salt spray or grease on the elements as these can etch the glass. Always hold the lens so that the surface you are cleaning is angled downward. Using a clean camel hair lens brush or a bulb syringe (I prefer a bulb syringe) rotate the lens and gently brush or blow the dust particles off the surface. (If this is not done, the dust can act as a grinding compound and scratch the surface of the elements.) Then use a drop of lens cleaning fluid on a bunched-up lens tissue, and gently wipe the lens.

Often it is more important to know what you should not do when cleaning the lens.

Do not use dry lens tissue on your lens.

Do not use lens cleaning fluid directly on the element as it will loosen the cement.

Do not use your lens brush for anything other than cleaning the elements.

Do not wipe the lens brush on anything other than the lens (that means your hands.)

Do not use your shirt tail, handkerchief or other articles of clothing, because they pick up all the dirt and grime that floats in the air.

When out in the field, the following procedure could be used for checking ground glass, back focus and focal plane distance.

Attach your camera and lens to a tripod.

Set up a fixed target at approximately 8-10 feet. (The target could be your slate board, or a sheet from a magazine, but not newspaper, because you need sharp lines.)

Attach a piece of ground glass to the aperture opening with the granulated side against the aperture plate (for an Arriflex where you cannot look directly into the aperture plate, use a right-angle prism with one ground surface.)

Attach a strip of tape to the focus ring of the lens. With the zoom in telephoto position, view the target through the viewfinder and adjust the focus to its sharpest image.

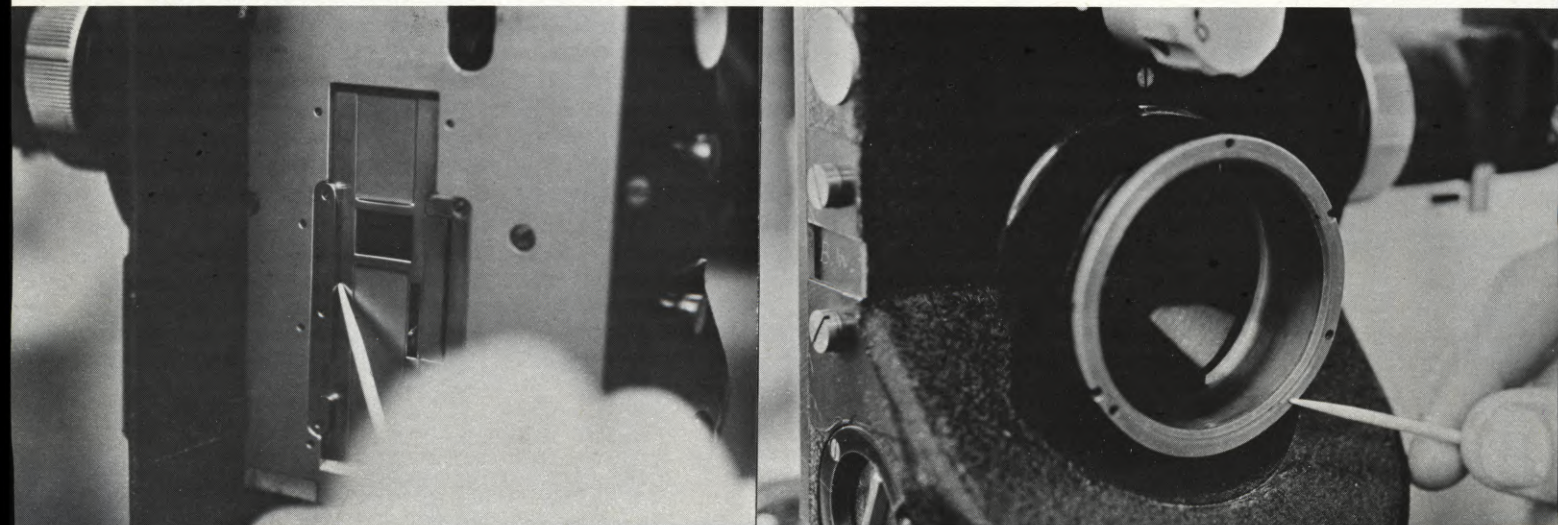
Place a reference mark on the tape to line up with the fiducial line (witness line) on your lens.

Return your eye to the finder and pull the lens slowly to the wide angle position watching for any change of focus or image shift.

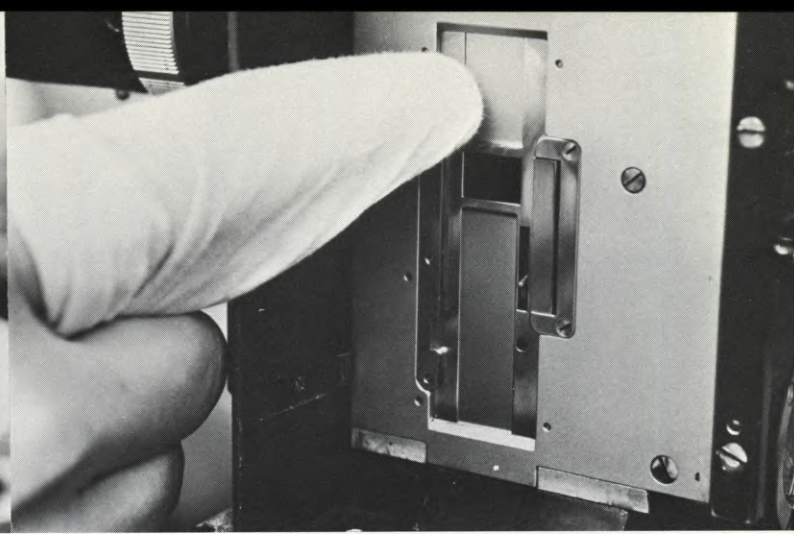
Now return the lens to the telephoto and move the mirror out of the viewing position.

Using a magnifying glass, look through the ground glass attached to the aperture plate.

(LEFT) FIGURE 1 — In cleaning the stationary side film guides of your camera, a wooden toothpick works well for getting the crud out of the crevices. (RIGHT) FIGURE 2 — On cameras with movable turrets, check for dirt or burrs on the seating area behind the turret, as well as the turret seating area on the camera body.







**(LEFT) FIGURE 3** — When out in the field, use a magnifying glass to look through the ground glass attached to the aperture plate. **(RIGHT) FIGURE 4** — The aperture plate should be checked for dust, hairs and emulsion build-up prior to the first shooting and, if possible, after each magazine change. To clean, use only a wooden orange stick, a clean soft handkerchief or chamois.

Refocus the lens and check that the reference mark previously put on the tape is lined up with the witness line.

If the reference line on the tape matches the witness line on the lens, and all looks good when you pull back to the wide-angle position, you can assume your lens, camera film-plane and camera ground glass are in proper adjustment. However, if the reference mark does not line up with the witness line of the lens, or the image goes soft when you pull back to wide angle continue checking as follows:

Remove the lens from the camera.

Check seating areas, lens and camera for dirt or burrs.

Wipe dirt off with a clean, soft cloth, or for stubborn dirt, use a wooden toothpick or an orange stick (never metall).

On cameras with movable turrets, check for dirt or burrs on the seating area behind the turret, as well as the turret seating area on the camera body.

Replace the lens and follow the

steps above.

When using a zoom lens with your camera, a little special attention needs to be given because of its weight. With a "C"-mounted zoom lens, there is very little material holding the lens in register. Therefore, it is extremely important to use a lens support and eliminate any possibility of the heavy zoom pulling away from the camera, therefore changing focal plane distance. A lens support will also save excessive wear on the lens mount, and will help to insure the quality of footage you're trying to achieve.

One of the best systems for support of zoom lenses is one which is attached to the camera from below to support the zoom lens.

Now, what about the mysterious film scratch which ruins what would have otherwise been a perfect picture? To avoid that problem, check your camera out for scratching in the following manner:

Set up the camera in a normal manner and load with film.

Run off a few feet of film through the camera.

Remove the film from the takeup core.

Angle the film so that the light will reflect off of it, looking for scratches.

Hopefully, you won't find any scratches, and you'll know you are okay to proceed. However, if you do find a scratch, continue the check list:

Mark the film with a felt pen at these four locations.

Where film exits the feed roller.

Before film enters the gate.

After film exits the gate.

Where film enters the take-up roller.

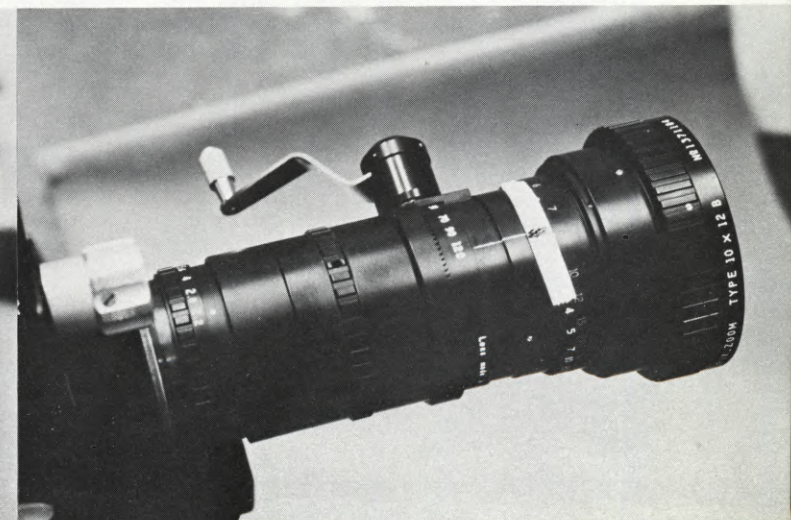
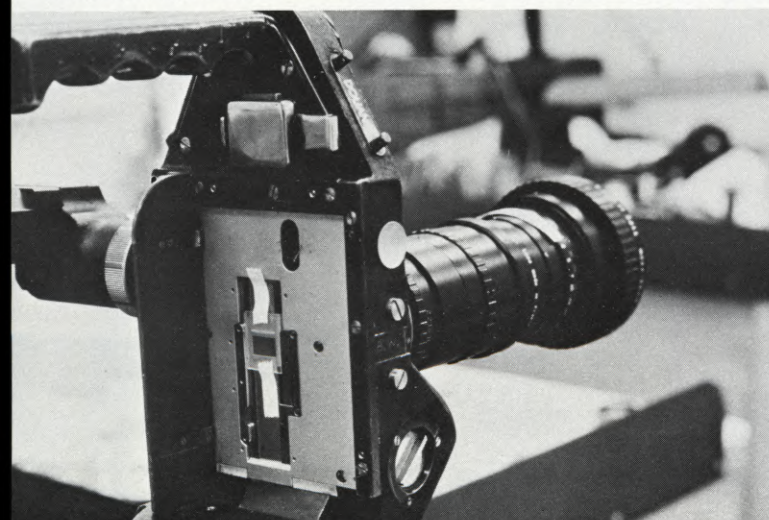
Carefully unthread the film from the camera and examine the film as before, angling it to reflect the light.

The area causing the scratch is indicated by the origin of the scratch on the film (i.e., the location at which the scratch first began.) The suspect area should be checked carefully for film chips, emulsion buildup, dirt or burrs.

With instant loading magazines, like the Eclair, the steps are a little different:

**Continued on Page 1266**

**(LEFT) FIGURE 5** — Attach a piece of ground glass to the aperture opening with the granulated side against the aperture plate (for an Arri-flex, where you cannot look directly into the aperture plate, use a right-angle prism with one ground surface). **(RIGHT) FIGURE 6** — Attach a strip of tape to the focus ring of the lens. With the zoom in telephoto position, view the target through the viewfinder and adjust the focus to its sharpest image. Place a reference mark on the tape to line up with the fiduciary line (witness line) on your lens.





The incredibly light Beaulieu R16 body accepts all "C" mount lenses, as well as Arriflex and 35mm still camera lenses with "C" mount adapters. It's compatible with your sync-sound unit. And, as with any professional 16mm system, you have a long list of accessories and options so you can tailor the R16 to your own shooting needs. Yet the R16 costs less than half as much as other genuinely professional 16mm cameras.

There are no surprises on the R16. All the professional features are there, including a mirror/

shutter for 100% light transmission to the viewfinder and TTL metering system. All controls are where you expect them to be. Viewing is by reflex viewfinder with ground glass screen. Speeds are 2-64 fps with speed range changeover for super accurate sound sync at 24-25 fps. Single frame and reverse filming at any speed are standard features. The Beaulieu R16 is a superb, economical back-up camera, ideal for second unit filming, film testing, and grab shots. It's built to such precise

standards that you can easily match frame lines to the first camera...and defy an expert to tell which camera shot the scene.

See a Beaulieu 16mm specialist in professional equipment and ask him if you can fondle our body. Or write us if you need additional information or the name of the Beaulieu dealer nearest you.

Hervic Corporation, 14225 Ventura Boulevard, Sherman Oaks, California 91403.

## Beaulieu R16



Take our body  
and do what you  
will with it.





# New Zeiss T1.3 lenses— designed exclusively for Arriflex 16mm cameras.

The fastest matched set you can buy, and the closest focusing. Designed for the Arri bayonet mount. Zeiss quality.



Five T/1.3 lenses — three of them available now.

**T**o take advantage of the newest emulsions and camera technology, our goal was to make the *best* matched set of 16mm lenses available. So we went to Zeiss.

### New designs

The Zeiss designers had the unique advantage of *starting from the beginning*. No adapted 35mm designs. No compromises with back focal distance.

### The hard way

A brand-new design, commissioned specifically for *one* film format and *one* brand of camera, takes more time and

costs more money to develop, naturally. But, given a good designer, you get a better lens.

### Matched set

What we've got now is *three* lenses — 12mm, 16mm and 25mm. They're all f/1.2, T/1.3. Two more T/1.3s are in production — a 9.5mm and a 50mm.

### Close focus

Minimum focusing distances: For the 12mm, 8 inches; for the 16mm, 10 inches; for the 25mm, 15 inches. They all stop down to f/11. And they're designed to deliver Zeiss quality at *every* stop, not just wide open.

### For Arri only

Zeiss is making T/1.3 16mm lenses exclusively for us, in the steel Arri bayonet lock mount only. Usable with the 16S/B, the 16M — or the 16SR. The new emulsions, the 16SR camera and these lenses add up to a state-of-the-art 16mm *system*.

16SR and Zeiss — a camera system.



# ARRI

ARRIFLEX COMPANY OF AMERICA

Arriflex Company of America: P.O. Box 1102C, Woodside, New York 11377; phone: (212) 932-3403. Or 1011 Chestnut St., Burbank, Calif. 91506; phone: (213) 845-7687.



# AN AMERICAN FILM INSTITUTE SEMINAR WITH STANLEY CORTEZ, ASC

A distinguished Hollywood cinematographer shares his views and expertise with A.F.I. Fellows and American Cinematographer readers

As perhaps the most important aspect of education for the Fellows in training as film-makers, historians and critics at its Center for Advanced Film Studies, located in Beverly Hills, California, the American Film Institute sponsors conferences and seminars with top technicians and talent of the Hollywood film industry. These men and women, outstanding professionals in their respective arts and crafts of the Cinema, donate generously of their time and expertise in order to pass on to the potential cinema professionals of tomorrow the benefits of their vast and valuable experience.

In keeping with this tradition, Cameraman's Local 659 (IATSE) sponsors a continuing series of seminars with ace cinematographers. These men — both contemporary working Directors of Photography and some of the now-retired "greats" of the past — meet informally with the Fellows at *Greystone*, the magnificent estate which is the headquarters of the AFI (West), to present valuable information on cinematographic techniques and answer questions posed to them. Very efficiently introducing and moderating each of the individual seminars is "Emmy" Award-winning Director of Photography Howard Schwartz, ASC.

Through a special arrangement with The American Film Institute and Local 659, *American Cinematographer* will, from time to time, publish excerpted transcripts from these seminars, so that readers of this publication may also receive the benefits of the information conveyed.

The dialogue which follows has been excerpted from the A.F.I. seminar featuring Stanley Cortez, ASC. The seminar followed a screening of Orson Welles' *THE MAGNIFICENT AMBERSONS*, on which he was Director of Photography.

Long one of Hollywood's most distinguished cinematographers, Mr. Cortez wrote the definitive section on Motion Picture Photography for the *Encyclopaedia Britannica*. He is a member of the Board of Governors of the Academy of Motion Picture Arts and Sciences, as well as the Board of Governors of the American Society of Cinematographers.

His extensive roster of feature credits includes *THE MAGNIFICENT AMBERSONS*, *NIGHT OF THE HUNTER* (both regarded as classics of

black and white cinematography), *SINCE YOU WENT AWAY*, *BACK STREET*, *FLESH AND FANTASY*, *THE THREE FACES OF EVE*, *BLUE*, and *THE BRIDGE AT REMAGEN*. He is currently assigned as Director of Photography on *IMPULSE*.

**SCHWARTZ: THE MAGNIFICENT AMBERSONS is still a great movie. I'm very proud to have been associated with it. I was the assistant cameraman on the show and the more I see it, the more I love it. It stands the test of time. I'd like you to meet Stanley Cortez, who photographed it.**

*CORTEZ: It's one of my all-time favorite films.*

**SCHWARTZ: Speaking of AMBERSONS, I want to pay tribute to Jimmy Daly, the operator on it, who is no longer with us. In those days you didn't have zoom lenses and reflex cameras. This picture was all done with flat lenses and a finder. Jimmy did a great job.**

Director of Photography Stanley Cortez, ASC, shown plotting camera angles with Orson Welles at the R.K.O. Ranch during production of Welles' masterful "THE MAGNIFICENT AMBERSONS". Considered a classic of black and white cinematography, the film suffered dramatically when scenes and sequences totalling 5,000 feet were arbitrarily cut from it by the studio.

*CORTEZ: And we had no exposure meters either.*

**SCHWARTZ: It was uncanny what this guy (Stanley) did. In those days, most cameramen played it safe. They exposed their negatives rather fully and let the lab print them down. Stanley didn't do that. He exposed it properly in the camera. He was far ahead of one-light printing. He printed his own stuff practically. Anyway, I think that now I'll let Stanley tell you more about it.**

*CORTEZ: After seeing this film again, I realize more and more that Orson Welles is truly one of our great, great geniuses — and to have been associated with him on this particular film and to have it received during all these years as a classic throughout the world is very heartwarming. I became associated with Orson Welles in a very strange way. AMBERSONS was made at the RKO-Pathé Studios in Culver City and, in those days, David O. Selznick shared the same studio. I was with*





Selznick at the time and, while between assignments, I would walk around to the different stages and see these sets going up, and I would often remark to myself, "I pity the poor guy who has to photograph this damned thing." I was told by Orson's right-hand man, Jack Moss, that the picture would be photographed by one of the RKO staff cameramen. I said, "Great!" and went off to New York to do some things for David. While there I received a telephone call informing me that Orson wanted me to photograph *AMBERSONS* — and I had never even met the man. After calling David Selznick for permission to leave New York, I left on Sunday, arrived here Monday afternoon, met Orson for the first time on Monday night, and we started shooting Tuesday morning. Did you know that, Howard?

**SCHWARTZ:** No, I didn't realize that. I may have forgotten it, though; it's been so many years.

**CORTEZ:** Anyway, that particular evening I made many changes in the lighting scheme. It was an all-RKO staff and I was the only outsider. Why was I chosen to do *AMBERSONS*? Gregg Toland was a dear friend of mine and we shared many innovative ideas in those days. I'm pretty sure it was Gregg who first recommended me to Orson, but equally important to this story was a great projectionist out there named Charlie ... What was his name, Howard?

**SCHWARTZ:** Charlie McCloud.

**CORTEZ:** Charlie McCloud — a great Irishman and a great human being. Charlie knew that Orson was looking for someone to photograph *AMBERSONS*. At that time, Hal Kern, who was the film editor for Selznick, had quite a few tests which I had made for David and, since they'd already been seen, he had thrown them into the disposal can. It was Charlie McCloud who went to this disposal can, put what Hal Kern had discarded on a reel, called Orson and said, "I think I have something that you're going to like." As a result, I photographed *AMBERSONS*. When I arrived here and met Orson for the first time, I hadn't read the script, but I had an idea of what he was trying to do. I had seen *CITIZEN KANE* many, many times and had marvelled at this man's creative talents and his ability to do things with the camera. On the first sequence that I did for *AMBERSONS* the whole cast worked. It's the sequence where they're all having dinner. I had tested no one, made nothing for the



Cortez with Director John Guillermin during the filming of "THE BRIDGE AT REMAGEN" at Barandov Studios in Prague. Shooting was interrupted by the Soviet occupation of Czechoslovakia and the company was forced to complete the film in Hamburg. It is a tribute to the director and cinematographer that no discrepancy in locales is apparent on the screen.

lab, but after the first day's work I went to the lab at midnight to get the first test coming through, and from what I saw on the negative, I had a good idea that Orson would like the print. The next morning everybody was there to see the film and when it was over, Orson threw his arms around me. From that moment we had the kind of relationship that doesn't exist too frequently these days. Not only did Orson create enthusiasm among the actors, but among the men behind the camera, which is a rarity these days. There are some interesting things about *AMBERSONS* that I'd like to tell you about. For example, where do you suppose the snow sequences were made? Was it at Big Bear? Or Yosemite?

**RESPONSE:** It was made in the studio.

**CORTEZ:** No.

**RESPONSE:** It was shot in an ice house.

**CORTEZ:** Thank you. You've been reading books. It was filmed downtown in an old Union Ice Company ice house. What Orson was trying to do, and rightfully so, was to get a true feeling of the cold, so that when the actors would speak, their breath would be visible. The thing that I was trying to do there was to create, with Orson, a

kind of Currier & Ives concept of light and shade, and I think we captured that to a very high degree. There was one sequence in that picture where we had the process machine up on the ceiling shooting down, because our camera was shooting up. That was an enormous undertaking, because your axes of both camera and projector had to be in the same plane, as you all know. In *AMBERSONS* we had many, many shots where we would start low and go three or four stories. How do you light a thing like that? The first Sunday on the picture, Orson, Chick Kirk (Production Designer Mark Lee Kirk) and I went out to the RKO Ranch, where many of the sequences were shot. The sets for the Amberson home (three stories high) and the other one were already built together with car tracks, fences and all. I said, "Orson, why were these sets built in this particular section?" I was told that it was because of the light, and so forth. Having read the script by this time, I wanted to get a certain effect and where it was built was all wrong. Now, to move this set would cost an enormous amount of money. I didn't want them to move it, but, by God, they did. A three-story house, fence, tracks and all. That was the kind of person Orson was — a perfectionist and a great, great talent. Now, I would like to talk a bit about the depth of field problem on *AMBERSONS*.

Continued on Page 1242





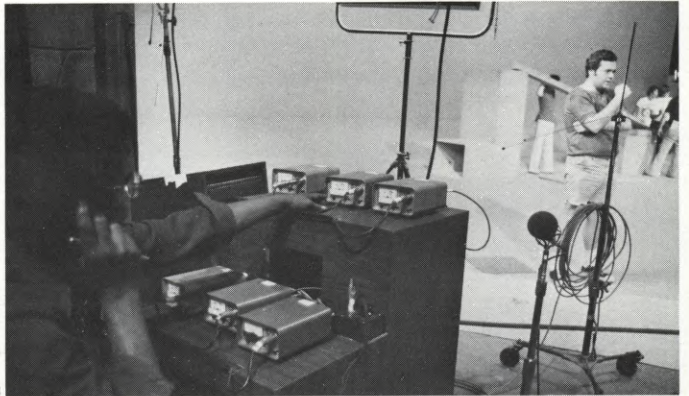


# the problem solver

**PROBLEM:** Produce a television series that uses many oversized props combined with chroma-keying where standard boom microphone techniques would be virtually impossible.

**SOLUTION:** Uses six Swintek wireless microphones on cast principals, thus allowing complete freedom of movement without the need of mike booms or cords.

While versatility is one of the many Swintek features, performance is the most important quality this outstanding cordless sound system offers. The six wireless microphones used to solve the above problem produced optimum sound quality with no interchannel interference, no case noise and no multipath or weak RF in three months of continuous daily production. **Can Swintek solve a sound problem for you? Call or write us today.**



Six Swintek cordless microphones were used on the cast principals in the production of the Krofft Supershow, "Dr. Shrinker," which airs on ABC-TV. The six Swintek receivers are shown above, just off the giant chroma-key stage used for the series. Swintek equipment allowed for a minimum of set-up time on the show's six sets and provided outstanding professional sound.

## Swintek Cordless Microphone System



The Swintek family. A complete line of cordless microphone systems to fit your every need.

**ALAN GORDON ENTERPRISES, INC.**

1430 N. Cahuenga Blvd.  
Hollywood, Calif. 90028  
(213) 466-3561 / (213) 985-5500

**VICTOR DUNCAN, INC.**

200 E. Ontario, Chicago, Illinois 60611 (312) 321-9406  
2659 Fondren, Dallas, Texas 75206 (214) 369-1165  
11043 Gratiot, Detroit, Michigan 48213 (313) 371-4920

**MOBIUS CINE LTD.**

7 East 47th Street  
New York, N.Y. 10017  
(212) 758-3770

Swintek wireless microphones were selected by ABC, CBC, The National Film Board of Canada, and The Olympic Radio and Television Organization for use at the 1976 Summer Olympiad, Montreal.



**SCHWARTZ:** I was hoping you'd get to that.

**CORTEZ:** The so-called "third dimension", if you want to call it that. On *CITIZEN KANE* Gregg Toland did many things to achieve great depth of field, including multiple exposures. The end result was that the foreground was sharp and so was the background. At that time, there were several of us who started working with that concept of depth of field. Gregg was one of them. Arthur Miller was the second and I was the third. And without us being aware of it, we would be thinking along the same lines. Where Gregg would work anywhere from  $f/5.6$  to  $f/16$ , we seldom went down beyond  $f/5.6$ , if that. Generally it was around . . .

**SCHWARTZ:**  $f/4.2$

**CORTEZ:** Thank you, Howard.

**SCHWARTZ:** I suffered greatly on that picture, trying to keep everything sharp.

**CORTEZ:** Now, I don't know how much you know about optics, ladies and gentlemen, but working at  $f/4.2$  and creating the depth of field that we had to (because of the way that Orson staged his scenes) was, I think, a rarity of the highest order.

**SCHWARTZ:** May I interrupt for one quick question, because this is very relevant to what you're talking about. I presume that the reason you worked at that f-stop, rather than the other way, was due to two things: you wanted a softer quality than *KANE*, and you didn't have a way to get the lights in to build up to that kind of a stop.

**CORTEZ:** That is partly true. Of course, we didn't have forced development in those days, but I don't quite agree with Howard there. You can create a feeling of depth by virtue of light — by contrast. Now, *KANE*, as Howard said, was of a more contrasty nature. *AMBERSONS* did not fit the *KANE* concept in the slightest degree. It had to have the depth. It had to have a certain amount of contrast, which is what created the depth, as against going down to  $f/11$  or  $f/16$ . I should point out that among my colleagues each of us has his own approach to getting a certain result. Many fellows today resort to laboratory treatments — plural. That's perfectly all right. But personally, I would rather have the control. I would rather be the

one to get the blame if its wrong, or credit if it's right. I don't want the lab to do anything except give me a darned good negative with proper color balance. There are exceptions, of course. A certain amount of flashing or forced development may sometimes be called for, but even that should be done under the control of the man behind the camera and not left specifically to the lab. Let me ask you one little question before you ask me questions: Does anybody in this room miss color in *AMBERSONS*?

**RESPONSE:** Not one bit.

**CORTEZ:** Thank you very much, because, as I'm sure all of you know, photographing a picture in black and white, believe me, is a lot more difficult than photographing it in color.

**SCHWARTZ:** Something that Stanley said brought to mind the fact that in *AMBERSONS* we had a tremendous shot that lasted about 900 feet. It

Sitting behind a DeBrie camera and flanked by camera operator André Germaine and Assistant Cameraman Jean Beauvet, Cortez lines up a scene for "THE MAN ON THE EIFFEL TOWER", while shooting on location in the famous Paris Left Bank cafe, *Les Deux Magots*. In recent years, Cortez has photographed several features in Europe.



started in the upper hallway where the family was around the big table, and we went clear down the hallway on a crane where we panned over, and the prop man slid out the tables as we went down. There were compositions on the stairways, which we never saw in the edited version, because they cut it very drastically. They cut from that to the mirror in the ballroom, which was the tag of a tremendously long and involved thing. They cut out that whole thing, which was a crime.

**CORTEZ:** Thank you for refreshing my memory, Howard. There was one thing that we did in this film that was very interesting and very difficult. The opening sequence of the ball — which has been terribly chopped up — Orson originally rehearsed to be filmed in four or five cuts. I said to Bob Wise, the editor (who is now a famous director), "Gee, Bob, if he would only do this one in one cut." Perhaps Orson overheard me. I don't know. But he said to me, "Can we make this sequence in one



cut?" I said, "Orson, if you're willing, I'm more than willing." So we did it. The camera goes through seven or eight rooms, and in each room (which required an entirely different lighting concept), the camera sees all four walls and the ceiling. And in some of the rooms there were mirrors. You may wonder how we did it. It was all predetermined. Walls would be raised and lowered on a certain cue. Lights would be moved into predetermined positions on floor marks. Mirrors would be tipped and tilted to accommodate the lens. It was done all in one move, ending up on a big closeup of Anne Baxter and Tim Holt, which is the opening of the ballroom sequence.

**SCHWARTZ:** Yes, we ended up with this huge closeup of Anne Baxter in the mirror. Then we pulled back, but they cut it after that.

**CORTEZ:** These are the things you contend with, and this is where experience comes in, and a certain amount of bravery. You've got to be brave. Get out there and do it! Gamble!

**QUESTION:** How long did it take you to do that shot — pulling through the eight rooms?

**CORTEZ:** We were on a crane and there were about 104 light changes. With rehearsals it took us about three days to do it, whereas we would have spent perhaps a week on the separate cuts. If you noticed, there are in this film many long dialogue sequences without a cut. I kind of like that. It creates a feeling of continuity and the audience is not confused by too many cuts.

**QUESTION:** In that shot in which Tim Holt is looking out the window at Joseph Cotten, I'm supposing that you actually shot his reflection in a piece of glass. Was that any problem to you?

**CORTEZ:** It was a problem, of course, to increase your light to balance with the exterior. But you do it. Get out there and do it. Don't be afraid.

**QUESTION:** How much actual space was there between the background and the foreground?

**CORTEZ:** I don't remember exactly, but I would say that the distance from the mirror's image to the lens was seven or eight feet, something like that, and we probably used a 30mm lens. Incidentally, most of the picture was shot with the 30mm lens. Is that right, Howard?



Bundled up in winter gear, the cast of "THE MAGNIFICENT AMBERSONS" pauses for a lunch break outside an ice house of the Union Ice Company in downtown Los Angeles. Welles, with typical perfectionism, decided to film the winter scenes inside the ice house so that the breath of the actors would be realistically visible. In this photograph, Cortez (in knit cap) stands directly behind Welles.

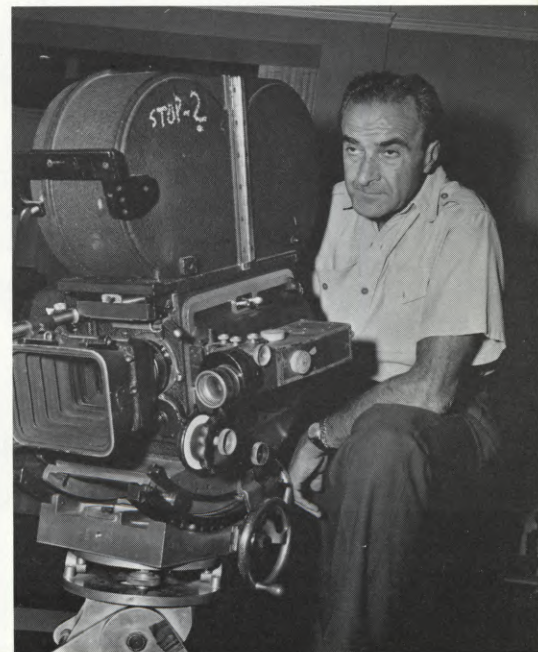
**SCHWARTZ:** That's correct. The 30mm lens at f/4.2. On KANE everything was f/8 or f/11, but this has a nice softness. It was much more in keeping with the mood of the story.

**CORTEZ:** Everything depends upon the mood. That's why I feel that any creative cinematographer is really an interpreter of the drama. All of us in our field are basically dramatists to a very high degree, just as a writer is. But we do it with light, with optics, with the camera, with all kinds of gimmicks. Who cares what we use? If the result is there, that's what's important.

**SCHWARTZ:** I'd like to comment on the compositions in this picture. I think there's some outstanding compositions in AMBERSONS. It's a lesson in composition for anybody. Because of the nature of the sets you could do this. Even those miserable ceilings gave tremendous effects compositionally. The set-ups were considerably lower because of those ceiling pieces and they did add tremendously to the drama of the picture. Sets like these are something that you rarely see today and young operators really don't have much opportunity to get involved with bold compositions. I think most of the compositions in AMBERSONS can

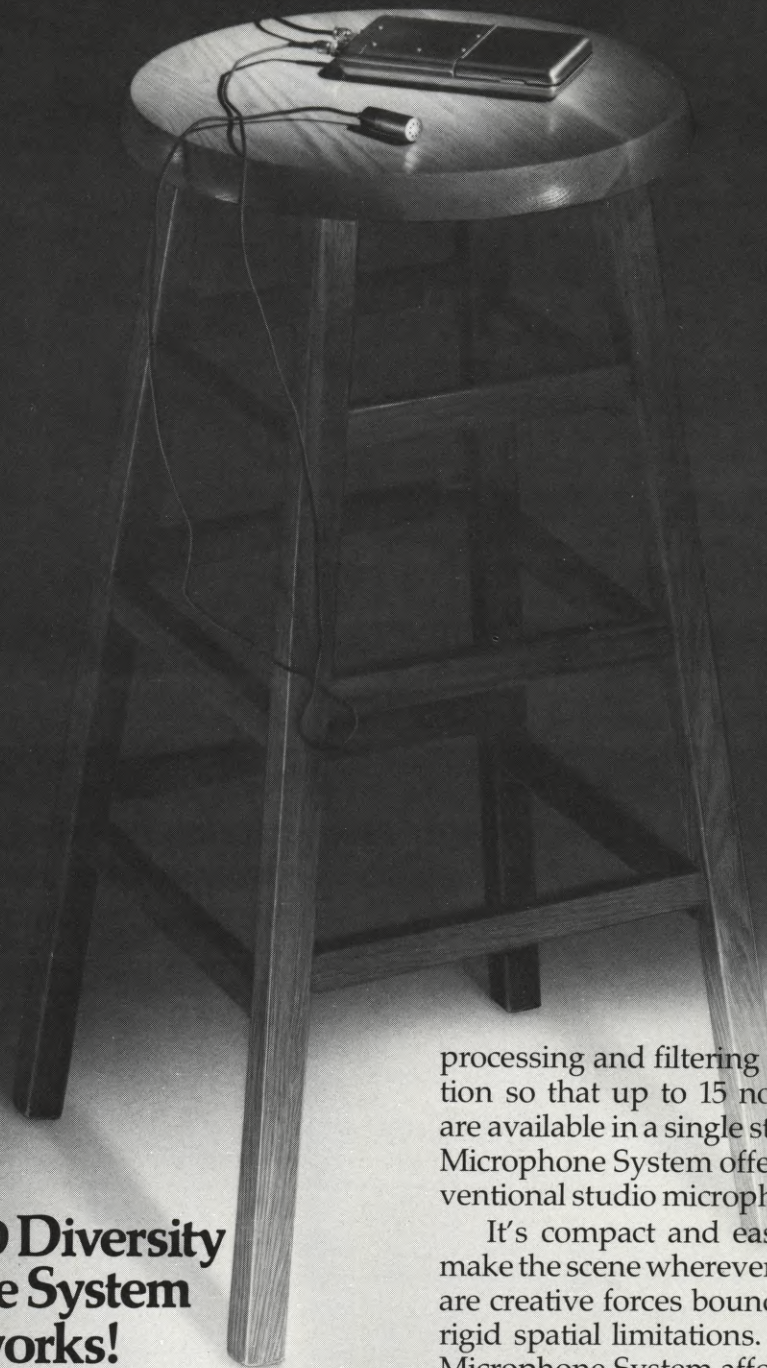
be credited to Stanley, but I must say that Orson Welles was a master of composition and he probably picked a lot of them. One thing that Stanley, in his modesty, hasn't mentioned and that's the matter of separation. Stanley was daring. He would let people go into deep silhouette against the sets. He'd have light in the foreground and then dark and then light and then dark. Continued on Page 1246

Trained in the classic tenets of cinematography, Cortez prefers to maintain control by getting his effects in the camera, not in the lab.





# Introducing...



## the only 950 Diversity Microphone System that really works!

At last, a wireless microphone that doesn't sound like a wireless microphone. Here's a diversity microphone system that has minimized distortion, maximized range and reception.

Automatic diversity switching using two antennas and high dynamic range front-ends, insure dropout-free performance, even in difficult locations.

It operates at 950 MHz and employs a combination of precision control, signal

processing and filtering to reduce intermodulation so that up to 15 non-interfering channels are available in a single studio. The 950 Diversity Microphone System offers the reliability of conventional studio microphones.

It's compact and easily concealed. Able to make the scene wherever the action is. No longer are creative forces bound by cables, booms nor rigid spatial limitations. And the 950 Diversity Microphone System affords the flexibility of interchangeable microphones.

It will revolutionize studio programming and remote operations for news, sports, and special events.

950 Diversity Microphone System. The broadcast-quality wireless microphone that goes anywhere, captures anything. Already successfully on the job, it really works!



**THOMSON-CSF LABORATORIES, INC.**

37 Brownhouse Road, Stamford, Connecticut 06902  
(203) 327-7700/TWX (710) 474-3346





Canadian film - theatre - tv

May-June 75¢

# MOTION

This Issue Features: Canadian Film—who is it? what is it? what does it want to be?



Canadian film - theatre - tv

Jan-Feb 75¢

# MOTION

This issue features: PORTRAIT OF FRENCH CANADIAN FILMMAKERS



Monique Champagne



Lucie Guilbeault



Claude Jutra

Canadian film - theatre - tv

volume 4 number 5

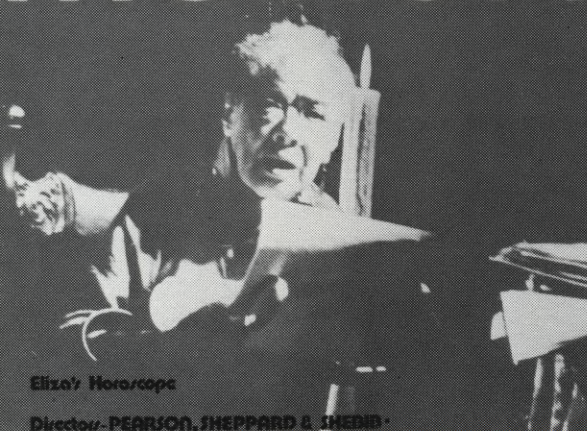
# MOTION



Canadian film - theatre - tv

volume 5 number 1

# MOTION



Eliza's Horoscope

Director - PEARSON, SHEPPARD & IHEDID

# one way

# to reach the Canadian film industry

MOTION Magazine is Canada's largest cinema trade publication.

Through our paid subscribers and our controlled distribution, we reach every area of the professional sector of the industry. Production and optical houses, labs, producers, directors, cameramen, film editors and every advertising agency across the land. We also realize the importance of reaching the young filmmaker. Therefore our mailing list includes every college, university and high school in the country, and selected areas of the United States.

If you have a message, an idea, or a product to sell to Canadians — you know you can reach them through us.

MOTION Magazine. In touch with Canada's film industry.

# MOTION

for more information write:  
MOTION MAGAZINE P.O. BOX 5558  
STATION 'A' TORONTO CANADA  
or phone (416) 961-3391



**CORTEZ A.F.I. SEMINAR**  
Continued from Page 1243

**This is what gives you the separation — lighting people against dark backgrounds or vice versa.**

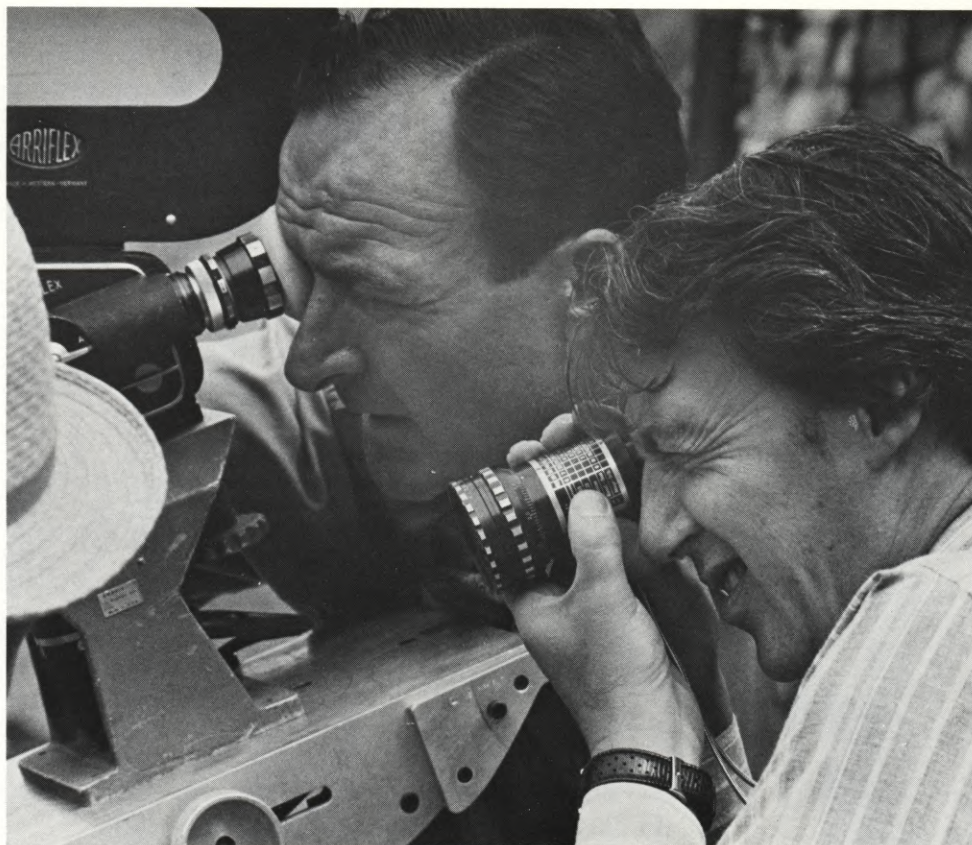
*CORTEZ: I'd like to add that all of this goes back to the so-called psychology of photography — creating visual mood and effect.*

**SCHWARTZ: I recall that Stanley used an aero filter in shooting a closeup of Dolores Costello inside. That's the first time I'd ever seen a cameraman do that.**

*CORTEZ: The reason for using any kind of colored filter on an interior in black and white is to correct something that can't be corrected in any other way. For example, if you were photographing someone who had light-colored eyes — grayish-blue eyes, for example — you might use a light yellow filter to darken that blue and give the face more contrast — this is in black and white, of course. But most necessary corrections can be made with light or makeup, and without resorting to tricky filters inside.*

**QUESTION: I would like to ask about how you made the transition from**

**Cortez as guest of "Terrible-tempered Otto" Preminger at EXPO '67 in Montreal. The two film-makers had journeyed to EXPO specifically to see the outstanding and unique examples of the Art of the Cinema which were such a spectacular feature of the Canadian Exposition.**



**Cortez lines up a shot for Canadian director Silvio Narrizano during the filming of "BLUE". The ruggedly picturesque area around Moab, Utah was the location for the shooting of this classic Western, during the course of which director and cinematographer developed a very close working rapport.**

**black and white to color photography, because your style of lighting in black and white would seem to be the most dangerous style for color.**

*CORTEZ: As film speeds increase, the technique changes, and sometimes the concept changes. I feel that you're alluding to contrast now, compared to some of the flat concepts.*

**RESPONSE: Yes.**

*CORTEZ: Actually, I didn't change a great deal. I really didn't. In the early days of color — what we call the "three-strip days" — Technicolor wanted light every place, under the table, God knows where else. Flat. They may have been right, but I didn't agree with them, nor did some of my colleagues for whom I had a great regard and respect — people like Leon Shamroy, George Barnes, Harry Stradling and Charles Rosher. These were the great masters. They made the lab change. I don't know how you feel about it, but today there seems to be the lack of usage of gels on sets. It no longer takes place the way it used to. Maybe it is because the eye has become accustomed to pastel shades, but I really feel that we're losing a great deal. To a great degree, this technique was introduced by Leon*



Shamroy on a film called *LOVE IS A MANY SPLENDORED THING*. Then Leon and I worked together on *SOUTH PACIFIC*, which is a story in itself. But Leon did some great things with gels, as did some of the English cameramen. One of the most beautiful films I've ever seen in color was a magnificent thing called *BLACK NARCISSUS*, photographed by Jack Cardiff — a truly magnificent film. There are many great English films in which they used color for interpreting drama. That's my point; interpretation, in terms of color. You don't find that very often nowadays. But I certainly use it whenever I can — not in an ostentatious way, but subtly.

**QUESTION: Do you use some manipulation of color by putting color filters on the lens?**

**CORTEZ:** No, I don't use color filters on the lens — only on lights. There are several schools of thought on that point and several of them are valid. For example, one school says that if you do it with light, you're stuck with it. Maybe so, but as I said before, I personally want to have the control. I don't want the lab to have it. I want to do it myself on the set, not in the lab. But the use of colored gels — properly used, as Leon Shamroy used to use them — is becoming a lost art.

**SCHWARTZ:** May I just add a word to that? I think one of the things you're referring to is separation. Stanley still goes for separation. I think that most of the cameramen who were cameramen during the black and white days realize the importance of separation. They still go for their breaks and for their differences in balance of light. I've found that the fellows who are doing the flat lighting, and who came in from commercials, have picked up this technique now and are going back to separation. They're making breaks and putting in colors and all of that. They're not lighting with photofloods anymore, and letting the colors do the separation.

**CORTEZ:** You know, Howard just mentioned a very important thing. There's a word that applies to almost everything in life, really, and that word is "balance". It applies equally to painting or music or photography. Personally, I don't particularly care for what some of my colleagues are doing. By that I mean those tremendously hot windows that you see every so often — all flared out. I think that sort of thing has crept into features by way of commercials. Once in a while I guess it's

all right to see hot flare coming through, but when I see it all the time it tells me that the person who photographed it doesn't know what he's doing, that he doesn't know the meaning of the word "balance". Howard, you've been around for a few years and you've had a lot of experience. Do you concur in my thinking on this point?

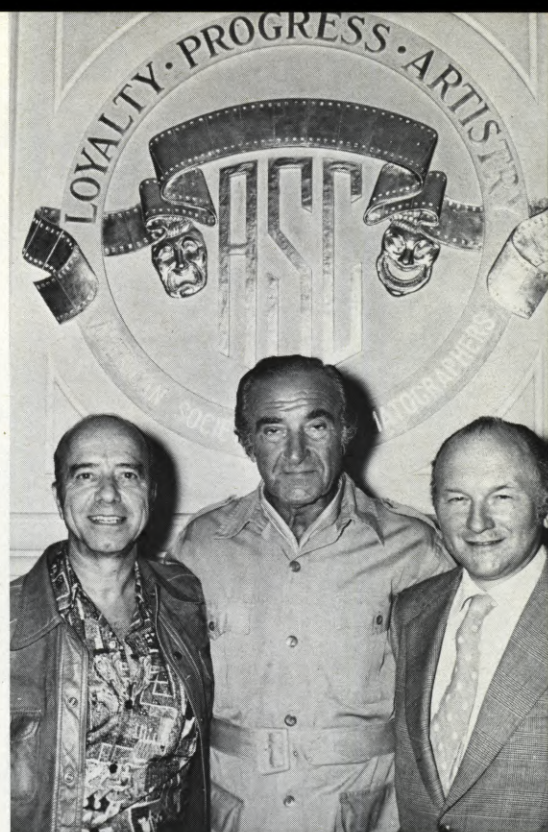
**SCHWARTZ: Absolutely!**

**CORTEZ:** People say: "When you go into a room and look out the window, it's generally very hot." This may be true — if you're looking only at the sky. But when you see a street down below, it's not that hot. You have all kinds of textures and all kinds of separations — which are totally lost when what's outside is exposed five times hotter than the interior.

**QUESTION: I'd like to know who decides what finally goes onto the film, the director or the cinematographer? In the case of your working with Welles on *AMBERSONS*, for example, who set up the compositions of the shots — you or him?**

**CORTEZ:** Now listen carefully: never once was I interfered with in regard to lighting by Orson Welles. Never once. Now, many directors do interfere — and I believe validly so. If they have a constructive idea, I think it's great. Four eyes are better than two. But as a rule, few directors become involved in the lighting phase or the composition, because they have too many other things to worry about. Do you agree, Howard?

**SCHWARTZ:** I do and I don't, but basically I do. It depends a lot on your schedule and the type of work you're doing. If you're on a short schedule, the director should be able to communicate with the cameraman and not waste his time looking through the camera, except after the cameraman has set the shot up. He should be utilizing his time working with the actors, rehearsing and getting the scene to play properly. It's amazing to me how many directors today — and they are the ones who are telling the story — cannot communicate. A number of directors I know waste so much time on the camera, whereas other directors can accomplish the same thing in a few words. This is basically the same relationship that a cameraman has with his gaffer, with his operator, with his key grip. He has to be able to tell them these things quickly. Now, on a picture like *KANE*



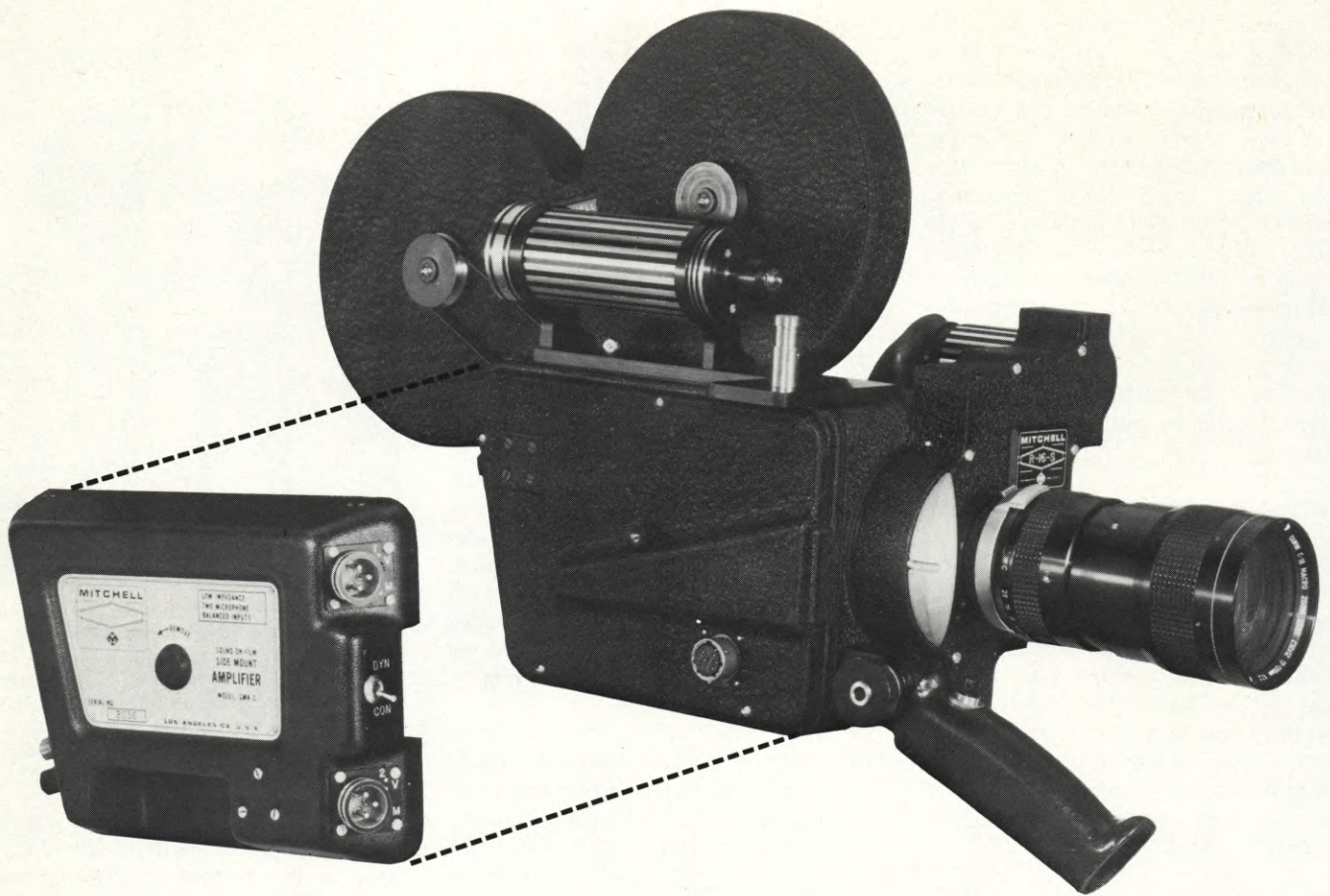
Cortez with Panavision President Robert Gottschalk and David Samuelson (Samuelson Film Service Limited, London) at a recent reception at the American Society of Cinematographers clubhouse in Hollywood. A member of the A.S.C. Board of Governors, Cortez is very active in Society affairs.

or *AMBERSONS* or any other big feature, if a director wants to spend some time on the camera with the cameraman in order to get the most out of the mood, or to decide the scope of the shot or whether the camera should be high or low, that's his privilege and it's certainly a great contribution — if you have the time. But if you're on a short schedule, forget it. Learn how to talk to your cameraman in a few words and tell him what you want. Then, get out of the way and let him do his stuff, and come back and check to see that he's giving you what you wanted. That saves a lot of time — but even in TV, if a director likes to line up his shots through the camera, that's his prerogative.

**CORTEZ:** One of the nice things about working with Orson is that he has great sympathy for the cinematographer. And he has a great feeling for and appreciation of cinematic images. When you're striving for something, he will adjust the movement of his actors to fit what you're trying to do in terms of light. In that respect, Orson should be given a great deal of credit. There was a photographic interplay between us. I knew what he was trying to do and he knew what I was trying to do, without our having to say a word. That is one of the great things about Orson Welles. ■



# What's in a Name?



## Plenty -- if it's MITCHELL!

Back in the twenties (and the thirties and forties too, for that matter) if you wanted the very best news/documentary camera, there was only one choice — the Mitchell NC. Today the only thing that has changed is the width of the film. There are other 16mm single/double system sound cameras on the market today, just as the NC had its competitors, but only one carries the name Mitchell — the new Mitchell R-16-S. And like it's famous forebears, it is the finest money can buy. Here are just a few of the reasons why:

1. A lightweight amplifier that's a snap to mount to the camera's side using a single connector and locking screw. And just as easy to remove for double system or two-man single system operation. Incidentally, the hard side plate is a part of the camera. You don't have to buy it as an "accessory."
2. All IC circuitry with removable circuit cards for easy servicing. There are two microphone inputs, each with separate AGC and manual override, plus adjustable bias for optimum recording. It is not necessary to buy an "auxiliary" mixer or "accessory" bias oscillator!
3. Extra brilliant rotary mirror reflex viewing system with integral TTL match-point light meter, audio VU meter and sync light *all visible in the viewfinder!*
4. A 12 volt motor drive system with crystal control *at all speeds* — 8, 16, 32, 36, and 40 fps as well as the 24 and 25 fps sound speeds!
5. Lightweight, all-magnesium body with internal BNCR-type bayonet lens mount which accepts a wide range of prime and zoom lenses. Weighs only 16 pounds with amplifier, zoom lens and fully loaded 400-foot magazine!

Considering its outstanding features and surprisingly low price, the all new R-16-S is today's best buy in a 16mm single/double system sound camera. And best of all, it's a Mitchell!

*"The Quality Standard of the World"*

*If your professional motion picture equipment dealer does not yet have the new R-16-S, call or write for complete information and prices:*

**MITCHELL**  
CAMERA CORPORATION



11630 Tuxford Street, Sun Valley, Calif. 91352 — (213) 768-6400



# FOR THE BUDGET CONSCIOUS... 16 MM. PRODUCTION IN MEXICO

NOTIMEX, Mexico's largest facility for 16 mm. film production, offers you a complete selection of 16 mm. cameras, lighting equipment and staff of professionals who are ready to assist you anytime.

Our performance record proves we can do the job quickly, professionally and at substantial savings.

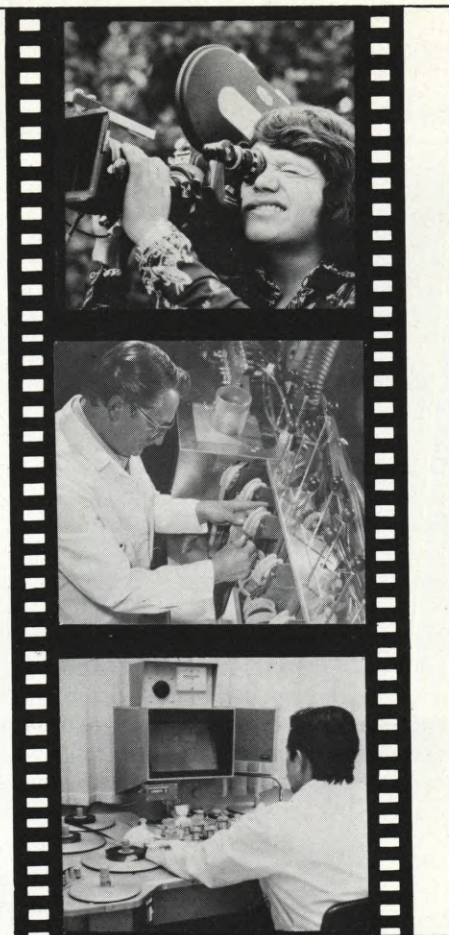
We offer you:

- CP-16's Arri-Bolex
- 7242 Processing
- Steenbeck Editing

Insurgentes Sur No. 1700 México 20, D.F., México

Tel. 535-35-55 to 59

534-82-60 to 62



**HOWARD A.  
ANDERSON CO.**



CREATORS OF DISTINCTIVE IDEAS  
AND DESIGNS FOR  
SPECIAL PHOTOGRAPHIC EFFECTS FOR  
MOTION PICTURES AND TELEVISION

TITLES · GRAPHICS · MINIATURES  
BLUE BACKING · INSERTS  
MATTE PAINTINGS · OPTICALS  
SPECIAL UNIT PHOTOGRAPHY

Main Office: PARAMOUNT PICTURES  
5451 Marathon Street, Hollywood, Calif. 90038  
(213) 463-0100



# FILM vs. VIDEO MYTHS EXPLODED

A convincing argument that the great film/videotape debate is actually a "pseudo-problem" and, therefore, much ado about practically nothing

By LARS SWANBERG

(EDITOR'S NOTE: The following has been excerpted from a speech delivered at the Nordic Film and TV Union conference, held in Copenhagen in February of this year. The material was authored and presented by Lars Swanberg, head of the Department of Technical Information and Development at the Swedish Film Institute in Stockholm.)

Life consists of pseudo-problems and real problems. A pseudo-problem is a small and comparatively unimportant problem, which by being favoured by mass media and by being controversial in a simple, harmless or perhaps even entertaining way, is made to appear as a real problem.

The question 'film or video?' is a pseudo-problem and is, as such, entertaining. It is controversial in the proper way and totally harmless. We debate Film vs. Video with the same glowing enthusiasm with which we argue for or against certain football or ice-hockey teams.

## Origins of the debate

The film/video debate has its roots in the birth of television broadcasting. It is, in other words, a typical 'old man's' debate, a quarrel between officials who are well-established enough to have removed themselves from the dirt of practicalities. To me, neither young nor old, it is totally irrelevant whether you shoot on film, on videotape or live. The important thing is not what you've got in the camera, it's what you've got *in front of the camera!* The real problems lie in what happens in the heads, hearts and stomachs of the people behind the camera.

I don't think that the cameramen or cinematographers — I am one myself — will be an obstacle to a change from film to video, from video to film or anything in-between. The basic problems are the same — panning, lighting, cropping — whether we work with an Arriflex BL or a Fernseh KCN (but I admit that I feel naked without the matte box). We must not forget that the lowest common denominator for all information storage methods dealing with images is — optics: The same fundamental optical principles apply whether the reduced upside-down image is projected onto a silver halide film, onto a silicon chip or onto a CCD converting light into electrical signals.

For *whom* is this then a problem since we spend so much time and money on film/video conferences and do so much writing and speculating about an eventual total victory for

videotape technology? Is *Eastman Kodak* the driving force behind it all? It can't possibly be so. From what I understand, over 80 per cent of their capital revenue comes from the amateur market and so far I haven't heard anybody talking about shooting Instamatic stills on video.

Is it the *laboratory bosses* who try to make us believe that the choice between film and video is of paramount importance? There are eight of them in Scandinavia. It wouldn't be unfair to call them a minority: eight guys who get their annual turnover cut down by approximately 30 per cent if the Scandinavian broadcasters decide to abandon film totally. In no way a serious catastrophe, considering that there is a certain over-capacity in the Scandinavian laboratory industry (at least in Sweden). Furthermore, three of them have recently entered the *Wonderful World of Video*. I am quite sure that both *Eastman Kodak* and the film laboratories will survive.

## TV seeks to wreck film

The film/video debate is sometimes charged with Middle Ages death-fear arguments. Film is ugly! Film is dead! Long live Video!

This foolish prestige struggle seems to be specifically a *broadcaster's problem*. It is the large broadcasting companies who try to make us believe that this pseudo-problem is a real problem. The electronics bureaucrats have obviously decided to prove, at any cost, that film is inferior and in doing this they do not hesitate to use lies, half-lies and manipulated statistics.

When I watch newsfilm on television I sometimes get the feeling that an exasperated film-hater has been maltreating the print or even the original before broadcasting. I have seen more scratches, dirt and projection errors on television than I have seen during my total time as a film cameraman (which is considerably longer than the time I have spent in front of the TV set). For me, as a TV viewer, it would just be a *relief* if newsfilm was replaced by electronic news gathering.

In many cases newsfilm cameramen will operate the new portable ENG cameras. RCA says openly that they have designed their new ENG camera, TK76, with the 16mm film cameraman in mind — in terms of weight, balance and handling. Thank God that they did not go so far as to incorporate a 33dB

camera-noise generator.

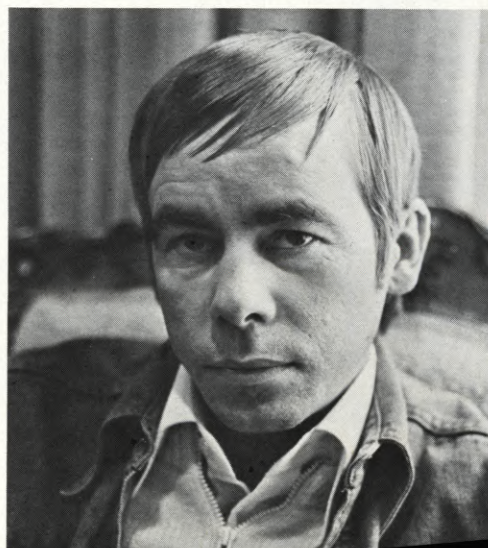
It is rapid technological progress, especially in the field of micro-electronics, that has made it possible for the professional television camera to move into places where only film cameras could go before. However, this rapid technological development (sometimes referred to as 'galloping') does not follow straight linear or exponential curves. It seems to move in the form of a spiral or along a 'two-steps-forward-one-step-back' pattern. Disappointments derived from using a new medium or method can lead to the *rediscovery* of old media and methods. In doing this, you convey new growth energy to an old technology.

## Video boosts sponsored film

I mentioned earlier that the prestige struggle between film and video is a specific broadcaster's problem, a cock-fight between department heads and technocrats. In the sponsored film industry — a less prestigious and prejudiced area — the sponsors (corporations, institutions, government agencies, etc.) have experienced disappointments in video production and thereby have rediscovered film as an information carrier. The emergence of the videocassette has caused a growth of the Swedish sponsored *film* market — largely but not totally due to the fact that many producers shoot on 16mm and distribute on video. Video, as a concept, carries the charm of novelty and a seductive atmosphere of modernism. The lack of hardware standardisation, lack of established working routines and lack of knowl-

Continued on Page 1264

A noted cinematographer, Lars Swanberg knows the video medium, as well, having for the past few years done considerable directing for the electronic medium.





# Why

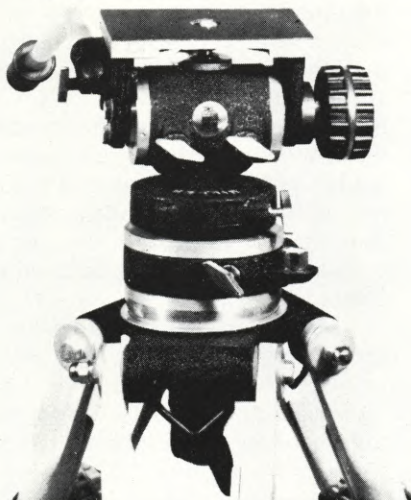
## THE Miller "Fluid Action" **PROFESSIONAL HEAD** is the World's Finest!

\*MILLER Equipment is precision-built of highest quality materials and every replacement part is available.

\*MILLER Equipment is used throughout the world by leading photographers film and television studio giants.

\*MILLER Equipment lasts indefinitely if properly maintained.

\*MILLER Heads are being used with complete satisfaction from the freezing Antarctic to the excessive heat and humidity of the desert and tropics.



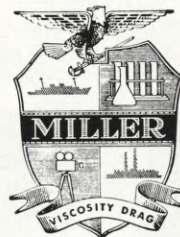
### FEATURES INCLUDE:

- \*Full 360° Horizontal Pan.
- \*Slip control for filming of fast moving objects or events.
- \*90° Tilt control up or down.
- \*Positive Tilt Lock and variable tension controls for camera support up to 40 lbs.
- \*There is a MILLER Tripod suitable for every Head.
- \*Other MILLER Fluid Heads are available for cameras from 5 lbs. up to 200 lbs.

The MILLER world famous velvet like movement operates on a semi-hydraulic principle which is patented throughout the world, and should not be confused with any friction-type movement.



*Leo's* **CAMERA SUPPLY LTD.** CANADIAN DISTRIBUTOR



(PATENTED)

1055 GRANVILLE STREET VANCOUVER 2, B.C. TELEPHONE: (604) 685-5331

## BUT ON THE aFERman® SELLS

## OTHER HAND, aFERman® RENTS

aFERman® sells professional motion picture equipment, all of the brand names that working filmfolk know and rely on.

That includes the big items like cameras, recorders, lights and tripods as well as such nitty stuff as splicing tape, gels, and filters.

On the one hand, aFERman® SELLS!



Atlanta Film Equipment Rentals®

1848 Briarwood Rd., NE, Atlanta, Ga. 30329

404/325-3676 or 633-4101



On the other hand, aFERman® RENTS.

Everything for TV spots, documentaries, or a feature. Low package rates on top equipment.

IN THE SOUTH the best mobile unit is the aFER® **CineMoHertz**



Custom-fitted Hertz vehicle filled with full production gear, spot/documentary version or grip only. Your production budget goes for the contents, not the truck.



# MULTI-SURFACE IMAGES IN A FILM ABOUT SPACE-AGE EDUCATION

By WILLIAM PHELPS

Associate Producer

Imagine a high school where every student chooses his own learning activities; where learning takes place not only in the classroom, but in dozens of situations inside and outside the school building; where minority youngsters can learn in terms of their own cultures.

This high school exists in the imaginations and plans of educators, and in a new film — *OPTIONS* — completed by The Creative Establishment in Chicago.

"An innovative style of education calls for an equally innovative method of presentation," says the film's writer-

man-made, artistic universe whose shapes are constantly changing — pulsing with life.

Don Klugman explains: "On one hand, the film deals with problems faced by two mature, straight-thinking adults — a businessman and a homemaker. These people effectively cope with life and its problems — perhaps because of the way they've been educated.

"On another level, the film deals with three people in the high school environment: a student, a young teacher and a principal — all benefiting from a system of education that gives

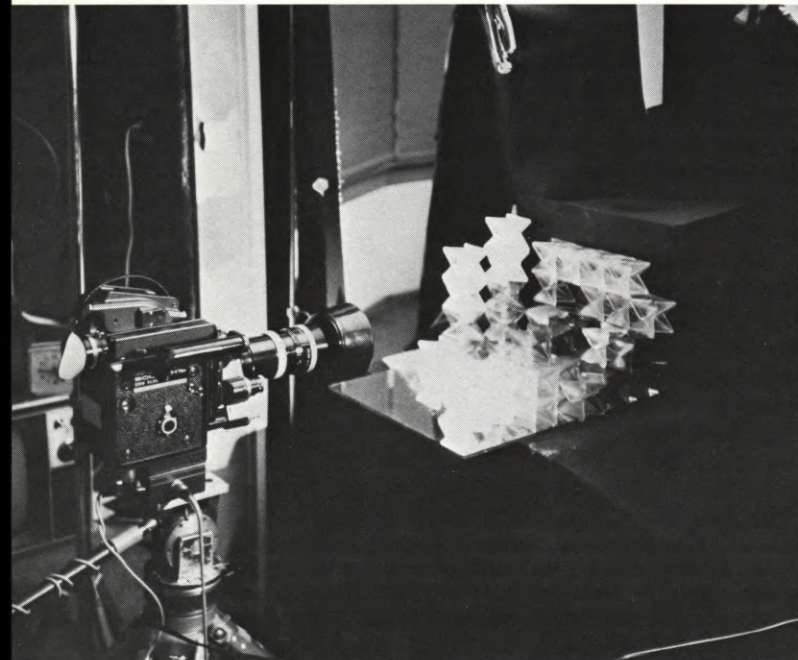
than costly equipment.

So *OPTIONS* was shot in five weeks — mostly with a Bolex EBM — edited in five more weeks with a four-head upright Moviola and a two-viewer bench.

(B) Stunning, sharp images are worth any amount of time, discomfort and heat.

That's why *OPTIONS* was shot with 7252 Ektachrome, as close as possible to the optimum recommended aperture of  $f/4$ , at a shooting ratio approaching twenty-five to one.

Breakdown of the script revealed a hundred-sixty lengthy moving shots



(LEFT) Writer-director Don Klugman's homemade rig for filming colorful plastic cubes. In this setup, an aerial image is being rear-projected into a space between the blocks. The mirror below gives the illusion of an infinite number of plastic shapes. (RIGHT) Klugman adjusts the plastic blocks prior to shooting. The effect of "internal glow" was achieved by side-lighting the setup with a Kodak Carousel projector.

director, Don Klugman. "We tried to find an idiom to express the searching nature of learning — the importance of free-form, adaptable schooling in producing a mature, effective adult."

Klugman's idiom appears on the screen as a world of colorful three-dimensional translucent shapes. The camera searches among these shapes, moves into them and between them, and discovers . . . a moving picture. The camera leaves the picture, moves deeper into the shapes, turns a corner and discovers . . . another moving picture. The process repeats itself, giving the viewer the feeling of traveling into a

every student the power to chart his own educational course, to learn the way that he learns best.

"To separate these different kinds of images we have our visual idiom, a combination of 'live' shapes and moving images that signifies the search for knowledge."

How was this blend of images and idioms created? To begin, Don and his Director of Photography, Ron Osso, discussed ways to make best use of the film's limited budget. Among their decisions were:

(A) A prolonged production schedule is more important

including only twenty matching shots. A hundred-forty vastly different sync-sound setups were involved, and eighty of the shots had to be specially composed for superimposition.

In this situation pre-production was crucial. A three-person pre-production team, consisting of myself, Don Klugman and script secretary Sissel Hanssen visited thirty Chicago-area high schools, to find three that we would eventually use.

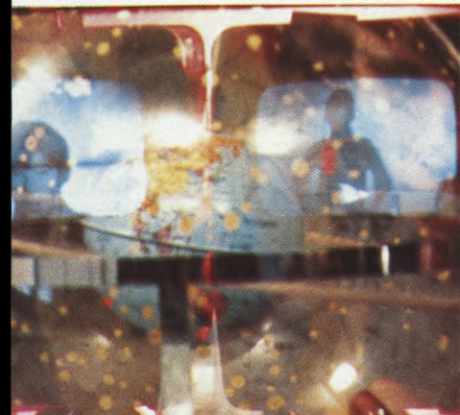
A major criterion was racial balance. The film had to be relevant in any community in the country. Another

Continued on Page 1260



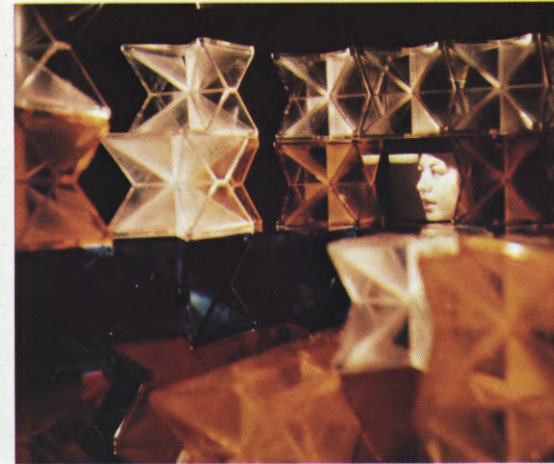
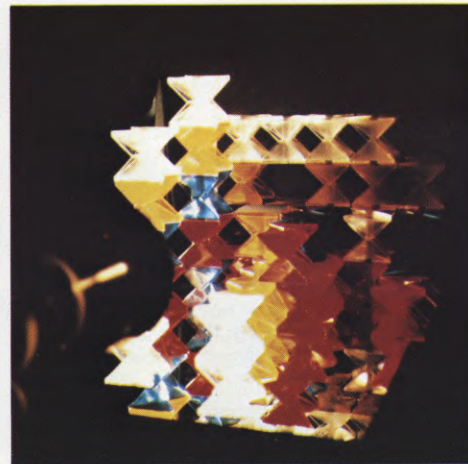


**(LEFT)** Rehearsal for a complex moving shot. Tough Blue gels on quartz lights balance daylight streaming into school's lounge. Cameraman Ron Osso and Klugman line up shot, while Gene Elders pushes wheelchair dolly. **(CENTER)** Sync-sound setup in a school TV studio. Such shots were made using an Auricon camera with TV shutter to eliminate "banding". **(RIGHT)** Klugman explains a shot to cinematographer Osso, behind Bolex EBM camera. The entire film, with exception of underwater scenes, was shot with a Vario Switar lens.

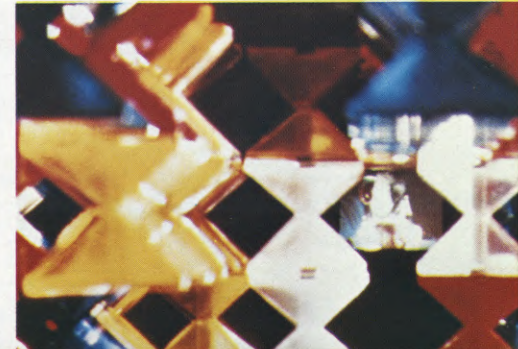


**(LEFT)** An example of visual continuity in *OPTIONS*. Sequence begins with a celestial globe in a geography classroom. Over this we see a pair of TV cameras — their monitors bearing the image of a student. **(CENTER)** The globe disappears and the cameras part, revealing the student making a presentation. **(RIGHT)** A re-focus and zoom-out reveal the student speaking to others in the school TV lab.

**(LEFT)** Klugman uses a fluid-head tripod for smooth panning across plastic cubes and rear-projected images in motion. Bolex crystal-control unit synchronized the camera shutter with sync-motor projectors behind cubes. **(CENTER)** As the film's ideas become more complex, so does the setup. **(RIGHT)** As the camera scans plastic shapes, ideas and philosophies unfold. At the climax, the camera arrives at moving image illustrating the concept.



**(LEFT)** Superimposition in a steel mill setting. The businessman is faced with a decision whether to remodel his plant. At the moment of decision, the super ends, and camera moves in to closeup of his face. **(CENTER)** A zoom-out reveals man's face, still in motion, among colored shapes. **(RIGHT)** A panning shot across the shapes ends with the first picture of the next sequence already in motion. With a zoom-in, this picture fills the frame.





# 'OFF THE EDGE' IN NEW ZEALAND

Their first time out, young Kiwi film-makers score with a stunning action-adventure feature shot in the spectacular New Zealand Alps

By MOLLIE GREGORY

Give Michael Firth a couple of Bolex cameras and a mountain glacier, and he'll come back with a feature film. Along the way he might fall into a crevasse (which he did), or get caught in an avalanche (which he did), but he *will* get the film — even if it takes two years (which it did).

"It's a wonder any of you got back alive," I said to him when he'd told me about his shoot in New Zealand with two ski-and-hang-glider friends and a third pal who ran sound and the second camera. It was a stunning movie-making tale: one of endurance, tenacity and devotion to filming against odds that would stagger even the most avid documentary or sports filmmaker. Most amazing — Michael Firth had never made a film before!

"I'd shot some Super-8 footage, ski films, and of course I'd skied with Jeff and Blair. What we wanted to do was combine our interests — filming, hang-gliding, skiing — with new challenges. We thought other people (whether they skied or not) could respond to a story about two guys who were tired of resorts — all those crowded, worn-out slopes — and who actively set out to find new, perhaps dangerous, certainly exciting experiences. Actually, what we wanted was a new frontier. We ended by finding our own kind of frontier in those mountains — our own test — our own measure — and we made a film about that."

Their feature-length film, *OFF THE EDGE*, will be released this month. The film doesn't pretend to be anything but what it is: a wild, playful adventure story of two hang-glider/skiers, Jeff Campbell and Blair Trenholme, on the snow

and in the sky. "We just shot it the way it happened," says Mike. "Blair and Jeff are themselves in the film. We didn't have any pretensions about making them into 'characters'."

Michael Firth, who was born and raised in New Zealand, is the kind of filmmaker who simply will not give up. He decided to make *OFF THE EDGE* in 1973. Originally about skiing — and there's still plenty of ski footage in it — the film has turned into an aerial event with the addition of the hang-gliding sequences. That he had never shot a foot of 16mm film or used a Nagra; that his two actors had never hang-glided before; that his second cameraman, Geoff Cocks, had never used any sort of camera or even been in the snow; that the terrain was completely new to them, and, in places, unexplored, zigzagged with hidden crevasses; that his "dailies" were bi-monthly at best — none of this stopped him. Mike Firth has a quiet, pleasant, straightforward manner that belies the kind of determined tenacity it took for him and his crew to make a film like *OFF THE EDGE*.

## GREAT WHITE WILDERNESS

Mt. Cook National Park is a vast Alpine area in New Zealand, bounded on one side by the Tasman Sea and on the other by the Barron McKenzie Basin. The highest peak — Mt. Cook — is 12,250 feet. The area cradles the Tasman and Murchison glaciers.

Mike, Jeff and Blair were (and are) fanatical skiers. They met by accident at Val d'Isere in France, Blair from British Columbia, Jeff from America, and Mike, of course, from New Zealand.

**First steps toward an unforgettable adventure. Blair Trenholme (from British Columbia) and Jeff Campbell (from America), superb skiers and daredevil hang-glider novices, backpack their gear up 12,250-foot Mt. Cook in the New Zealand Alps, as Mike Firth films them, aided by Geoff Cocks. The four-man movie company faced many dangers during the shooting, but came through unscathed.**



"I was running around filming them with my Super-8 camera, and trying to keep up with them — they were such remarkable skiers. We used to sit around and dream about the big movie we would make."

When the three went their separate ways, Mike kept the dream alive and plotted out a rough story line for it. Unable to find people in New Zealand to play the two leads, he contacted Jeff and Blair, and the search for the "actors" ended. Blair dropped out of school — only for a semester, they thought at the time — but he missed two years. "The poor guy is back there now," says Mike, "driving a taxi to work his way through school — after flying hang-gliders off 10,000 foot peaks!"

They all met up in Mt. Cook National Park in May of 1973 for a four-month shoot. They were there for a total of nine months over the next two winters.

Mike had ordered two 16mm Bolex cameras: an EBM with a Switar 10-to-1 automatic zoom lens, and a Rex 5 motor-driven Bolex with a compact 17mm-to-85mm zoom. A GSAP gun camera with 50-foot loads and a 10mm Switar lens, was used on the gliders, and attached to ski boots and helmets. For the skiing sequences they recorded all their sound on a Nagra 4.2 with a Sennheiser shotgun mike.

"We were shooting in very high light conditions. We chose Eastman's 7252 ECO reversal film stock because of the low (16) ASA, but also because we wanted to blow it up from 16mm to 35mm. ECO has a fine grain and has proven most successful in blow-ups.

"Our exposures were normally about F/16. That high reading gave good depth of field so I didn't have to pull focus all the time on the skiers who were constantly moving from long shot to close-up."

The 50-foot magazines were constantly being reloaded, which is quite tricky, involving a lot of handling of the film. Thanks to the ECO stock, not a single scratch has shown up on the blow-up.

The remarkable thing about this gang is the scope of their film compared to their lack of technical knowledge. Mike is candid about his naivete and inexperience, and the fact that he carried the Bolex book of instructions around in his hip pocket for the first few weeks of shooting.

Learn-as-you-go also applied to the fourth member of the team, Geoff



Cocks, a university student from Auckland. Geoff had run some sound on a Super-8 film he'd made with Mike, so he was recruited to run the Nagra 4.2 and the second camera. Turning out to be a whiz kid with the gear, he quickly learned how to adapt it to the rigorous uses needed, and how to repair it.

Geoff and Mike formed the basic film crew of two. Tony Lilleby, a Mt. Cook National Park Ranger and expert mountain climber who was also familiar with 16mm cameras, joined in some of the tough mountain-climbing sequences. Jeff Stevens, a professional cameraman from Auckland, ran the Arriflex BL for 10 days during the climbers' hut scenes and some of the hang-gliding sequences. But the Bolexes and the GSAP gun camera did eighty percent of the shots which appear in the film.

### HANG-GLIDING OVER THE ALPS

The hang-gliding sequences were the toughest of all the shots to achieve. "Basically, we were there to film a ski movie; we weren't geared to shoot hang-gliders. You might say that pre-production planning just didn't exist for the first winter's gliding shots," observes Mike.

Their first problem was that although Jeff had done some hang-gliding, he wasn't any expert, and had never piloted the Seagull III, which was one of the two kites he brought with him to New Zealand. Blair and Mike had never flown at all.

"We went out to the sand dunes near Christchurch and flew them off the sandhill," says Mike. "We just had these little flights, crashing everywhere. Then we went out to Round Hill, a beginner skiing area, about 5,000 feet up. It was a good place to gain more confidence. About 300 yards down, the slope drops off about 80 feet. We were going 25 miles per hour at this point, so we just sailed off into the air and landed a few minutes later at the bottom . . . like an airplane landing. And we'd just ski it out. We learned to hang-glide in a week, and by the time a month had passed, Blair and Jeff were flying off 10,000-foot peaks for the cameras."

During the first winter's shoot, they had two different kinds of gliders — the Seagull III and the Flexy Flyer. The Seagull had a glide ratio of four-to-one. The Flexy, with a straighter nose, had a lower glide ratio, and it just "sank like a stone" compared to the Seagull. It was almost impossible to get a shot of the two gliders flying together. In their first dailies they quickly saw that the Seagull's green sail did not show up well against the mountains, either.

They resolved to come back the



Equipment spread out and ready for loading into the helicopter to be transported to the base area. During the actual shooting, the men back-packed the cameras on skis, often over distances as far as six miles. Although "OFF THE EDGE" is a first effort, it is a thoroughly professional product and technically impeccable.

following winter with new gliders, an Eclair, Tyler mount and a 12mm-to-240mm zoom lens.

### THE SECOND TIME AROUND

"In June of 1974 we got back to Mt. Cook with the two gliders that would fly side by side," says Mike, "but we couldn't get a Tyler mount, which proved to be all for the best because of our scheduling problems with helicopters, and the weather. I rented an Eclair with a 12mm-to-240mm lens but, like some rented gear, it had been banged about a lot. It flared the first footage we took with it, so it was back to the old Bolex again and the Fleximount."

Shooting schedules centered entirely around the weather. If it was perfect — with no wind — they went out and shot hang-gliding. If too much wind was blowing, they would hike up on the glacier and film skiing. If the weather was too poor for either, they shot something else — like the ice caves sequence. But the filming pattern was completely dominated by — and at the mercy of — the winter.

Sometimes for as long as three weeks, they would sit out a storm in the Mt. Cook village near the foot of the Main Divide Ranges. Then, suddenly, the weather would clear.

"Getting helicopters was always a problem for us because the 'copters were being used for hunting deer, chamois, and Thar up there. But we ran across two of New Zealand's best pilots, Bill Black, and Mel Cain. They were a tremendous help to us."

Black flew a Jet Ranger which was ideal. Capable of holding four people, the Jet has a large luggage compartment in the back and ample space to shift crews, gear and hang-gliders around in it. It's speedy, can fly at high altitudes, and turned out to be steady for shooting. Firth preferred it for his aerials, compared to others he'd used before meeting Bill Black.

The dawning of a beautiful break in the weather sent them rushing off into the mountains in the Ranger. But because of the weather, they never had the luxury of going up to an area days in advance, getting out of the 'copter and checking positions. "We would only have this one golden day sandwiched in between weeks of bad weather, so we just couldn't blow a moment — literally."

Usually, Jeff, Blair and Mike made one quick pass in the Ranger over the location, deciding which peak they'd use for the gliders' take-off, and where they'd put the other cameramen.

Returning to the valley, they'd pick up the cameramen and drop them at their prearranged spots on the mountainside. As the pilot flew Jeff and Blair up to some high exposed eagle's aerie, he'd point out to them where the cameramen were stationed. When they were dropped off on the top, they had about 10 to 15 minutes to get their gliders ready and the camera attached and loaded. To make them easier to handle and set up, the battery-to-camera wiring ran inside the aluminum tubing of the gliders — another helpful invention by Geoff Cocks. They were racing against sudden changes in the wind, but invariably, they finished up with a side wind or a tail wind, which isn't good for gliding.

While they were unscrambling their gear and gliders, the pilot returned for Mike. "I'd take the door off the Ranger and jump in the back. This made it possible for me to get back up to the top again just as the kites were ready to take off," he explains.

The Fleximount proved invaluable for filming in remote locations. Since they had only one helicopter to transport crew and gear, as well as to film from, a Tyler mount would have been cumbersome. Mike sat on the floor of the Ranger with the Fleximount and he was ready to shoot. The Fleximount proved quite steady, and the resulting



shots in the film look smooth and fluid.

"I think for documentary work, where one is filming under pressure, the Fleximount is ideal," said Mike Firth. "The camera sits in front of you securely, which allows you to let go of it in order to make adjustments to the set or to the camera. There were times when I breathed heavily from exhaustion, but the shots still came out steady."

It is hard to imagine, but the location for each hang-gliding sequence was shot over a three-to-four-mile area.

"All snow and ice and, though beautiful," Mike told me, "it all looks the same." As soon as Jeff and Blair took off, they lost all perspective. It was hard for them to locate the cameramen on the ground — perhaps two miles away.



Entrance to one of the ice caves explored and filmed by the crew. Breath-taking in their sculptured magnificence, the caves were fraught with danger, because they underlay a glacier that was constantly moving and shifting its mass. A week after this sequence was "in the can", the whole series of caves in which they had been shooting collapsed.

Sometimes, when they did find them, their glide ratio put them out of range of a good shot. Hang-gliders can be very uncooperative, sometimes.

They rarely had two clear days back-to-back, since June begins New Zealand's winter. Each time they went out, they filmed three kinds of shots in one flight, in one day: from the ground crew, from Mike in the Ranger for the aerals, and from the gliders with the GSAP gun camera. Consequently, they often got into each other's shots. Finally, toward the end of the second winter, they had enough footage so they could afford some separate flights — like one

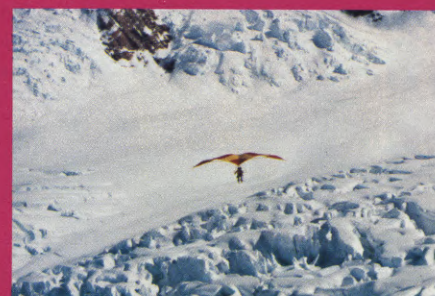
Continued on Page 1286



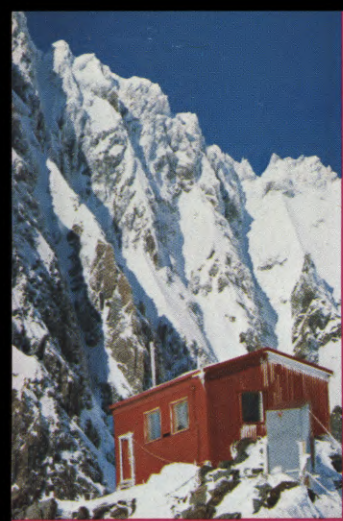
(ABOVE LEFT) Blair, a bit apprehensive before "flying" into the valley 4,000 feet below, with a 16mm camera mounted on the wing of his kite for in-flight photography. (RIGHT) Jeff, on a flight off the Minarets. The Tasman Glacier can be seen winding its way through the valley below. (BELOW LEFT) Shots for the Serac sequence were filmed at 50 frames per second to create effect of a dreamlike journey through a surrealistic landscape. (CENTER) Preparing to take off from a 10,200-foot peak. (RIGHT) In filming such action, timing, speed and coordination between cast and crew were essential.



(LEFT) Jeff and Blair ready their kites for take-off to fly in dual formation, which proved to be very difficult, but is truly spectacular in the finished film. (CENTER) Filming the aerals with the Fleximount proved to be very successful. (RIGHT) Swooping low over the angry, grinding terrain of the glacier, which would be a most inconvenient and dangerous place to land in case of an emergency.





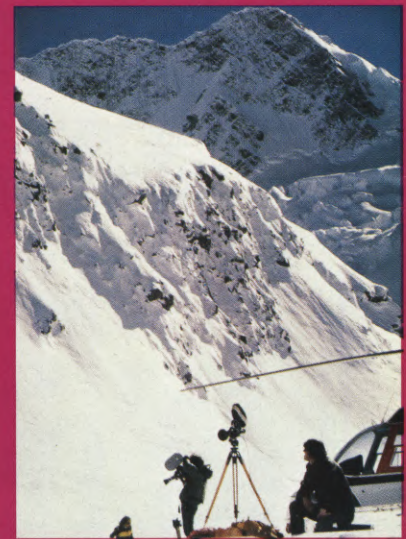


(LEFT) The Pioneer Hut accommodation at 8,000 feet served as a base of operations on the mountain and a principal location in the film. (CENTER) Crew and equipment sitting out one of numerous storms in the snug confines of the hut. During nine months on location, there were only 50 days of weather that permitted filming. (RIGHT) Crew prepares to film hang-gliding sequence at 10,000 feet.

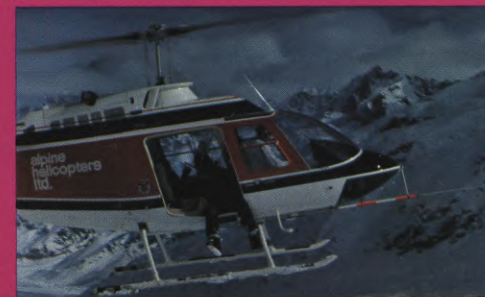
(LEFT) The helicopter proved most valuable for transporting cast, crew and equipment to otherwise inaccessible locations. (CENTER) Part of the Mt. Cook Village, where the crew lived during the nine months of filming. (RIGHT) Geoff Cocks recording hang-gliding sound effects with the Nagra at 10,000 feet. Unfamiliar with such equipment before this project, Geoff rapidly learned to use and repair it.



(LEFT) The Mt. Cook ski planes used to transport the crew 14 miles up onto the glaciers. Because of high-altitude weight limitations, no accessories or unnecessary luggage could be taken. (CENTER) Skis strapped to the wing of a ski plane, with the filming location thousands of feet below. (RIGHT) Mike Firth with the Fleximount and Geoff Cocks ready to film one of the 25 hang-gliding flights.



(LEFT) Jeff Campbell with the GSAP camera mounted on his helmet, ready to record some exciting point-of-view ski footage. (CENTER) In contrast to freezing in the ice and snow, filming the hot pool sequence was a welcome change. (RIGHT) The combination of helicopter and Fleximount proved to be the way to go on this particular project.





**ON LOCATION WITH  
"ISLANDS IN THE STREAM"**  
Continued from Page 1223

answering your question is that there is Hemingway prose — the Hemingway novel, in this case — and then it goes through an obviously radical change of form when it becomes a film script, as any novel does when it's put into screenplay form. So, therefore, one's interpretation has to be devoted to the screenplay form and not to what obviously is the novel form — which means to say that I would hope that what we're doing here serves the screenplay and not the original novel.

**QUESTION:** The main action of "ISLANDS" takes place about 1940. Does that make it a "period piece" in your estimation — and, if so, how does that factor affect your approach to putting the story on the screen?

**SCHAFFNER:** I think it's a period piece. I hope it has a sense of period without copying or imitating a period film. I believe we've approached this film with a great sense of sparseness in the doing of it — not because of its period, but because of what is essentially in the script, the extraction of what I think is best out of the Hemingway novel. It's a very human story and, therefore, a tricky one to handle, because there is on that island in the sea an enormous amount of space. That whole space factor has to be captured, but, at the same time, the human story has to be told. Therefore, it's not like a picture

such as "PATTON", where you can fill space with a lot of moving objects — tanks, guns, soldiers, that kind of thing. What this space is filled with is, for the most part, one person: Hudson. To do that successfully I find to be one of the trickiest kinds of problems I've ever tackled. I believe it is working, but I would rather credit certain performances and the script with making it work, rather than say that anything conceptually makes it work. I think that the rhythm of the character and the rhythm of the script are making this work.

**QUESTION:** You have interesting locales to work with here. How do they interact with these characters and influence them, and how do you portray that visually?

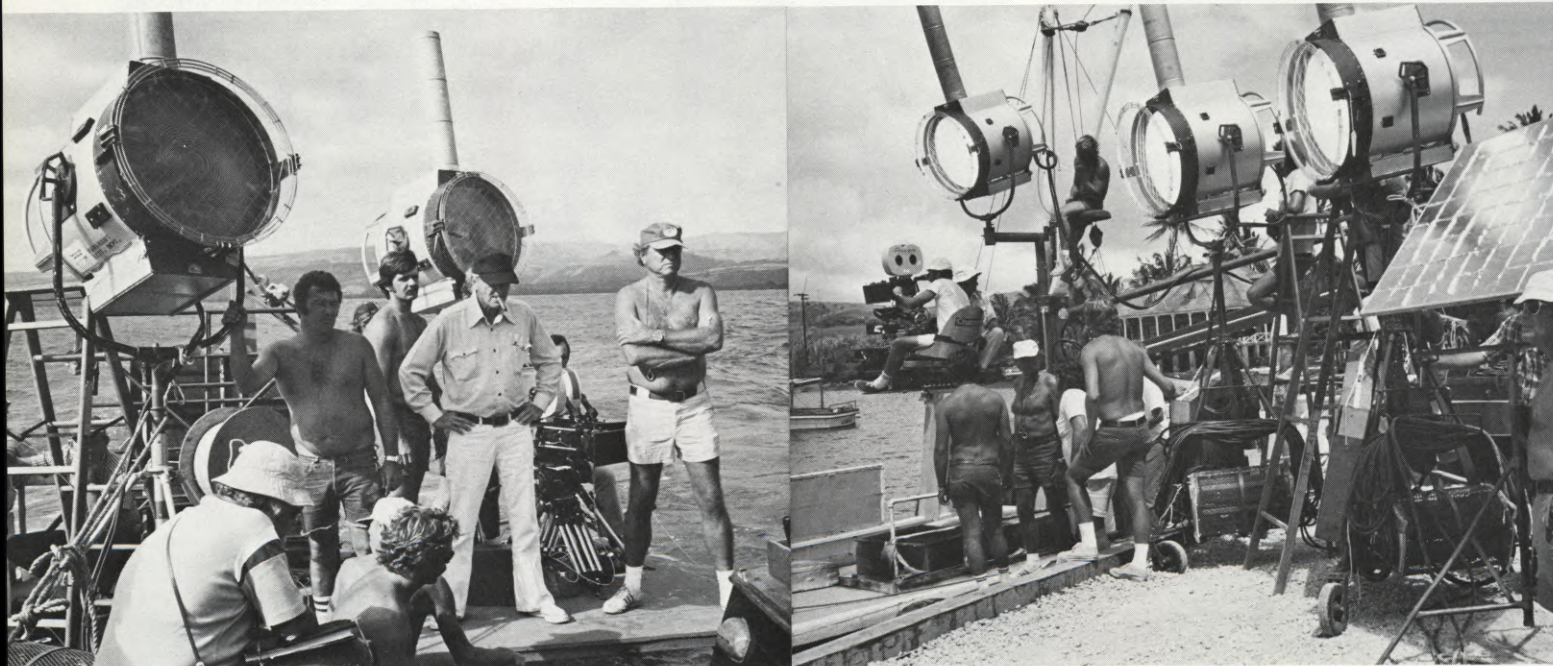
**SCHAFFNER:** That's one of the problems. Obviously, the story takes place in the Bahamas, which are actually coral reefs. We are working on Kauai, which is really a volcanic island. So we have to be very selective in what we shoot in order to make it look on film like an island in the Bahaman chain. For example, we can't show the mountains. I think we've been very fortunate here, because the color of the water changes much more radically on film than I would have imagined. It looks like Caribbean water. The harbor looks like a Caribbean harbor. The house location looks legitimately like the Caribbean and, indeed, like that of an island in the Bahaman chain. It's my hunch that it probably works better

here than if we'd done it in the Bahamas, because the scenery has more radical changes to it. The only major difference there is not in the color of the water, the sky or the greenery, but in the sand. The sand in that part of the world tends to be whiter than it is here. Before we started shooting we made a lot of tests to try to find out what would mute the lushness of this place, and I'm sure Fred has told you that we are shooting everything with a 1/4 fog filter. This will be successful if our final timing on the film is successful. While we're on that subject, I might say that we've done an awful lot of night work and shot it day-for-night, using some techniques that I have never experienced before. I think Koenekamp has done a remarkable job with it. Some of his interior/exterior day-for-night stuff is going to startle a lot of people, because it's that good. Also, I'd never worked with the Panaflex camera before, but working in the interiors of these boats with another kind of camera would have been impossible.

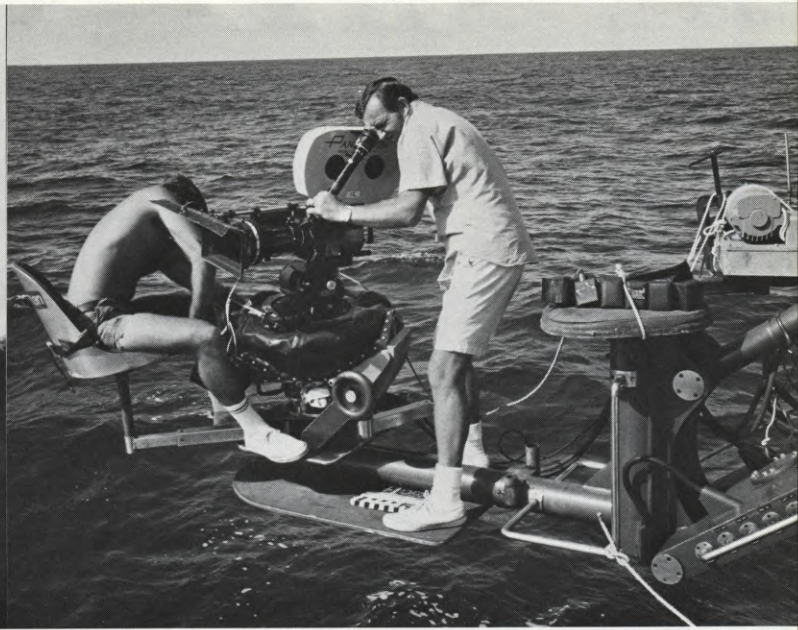
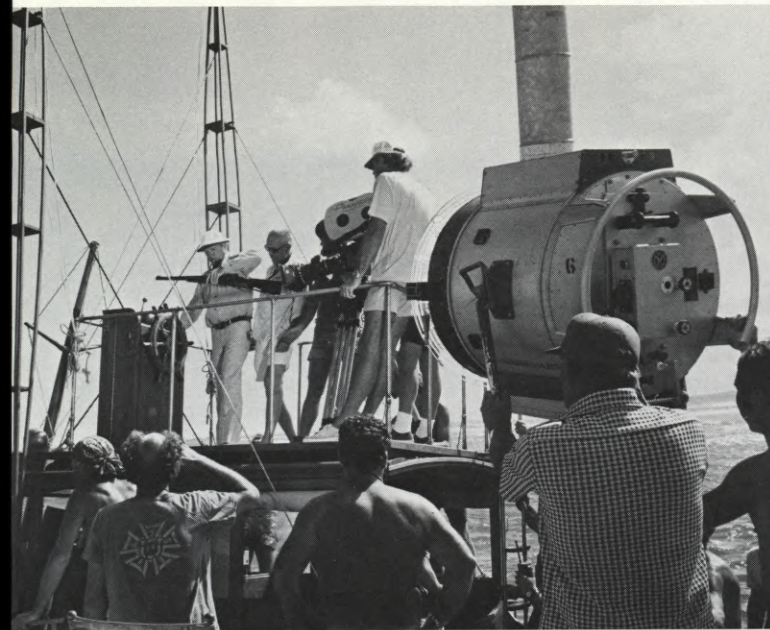
**QUESTION:** Speaking of Fred Koenekamp, this is your third picture with him — "PATTON" and "PAPILLON" being the two others. I'd like to ask about your method of working with a cameraman, and specifically this cameraman, since you've had such great success together.

**SCHAFFNER:** Well, it's tough to say now, because we've become so used to each other that the cut-through in

(LEFT) The crew filming from one of the modular platforms at sea. In the center is Director Schaffner, while at right stands Director of Photography Fred Koenekamp, ASC. This director/cinematographer team had previously collaborated most successfully on "PATTON" and "PAPILLON". (RIGHT) It takes a bank of arcs and reflectors to balance the intense Hawaiian sunlight. In the rear can be seen the High Commissioner's mansion.







(LEFT) Filming a scene on the flying bridge of the 36-foot boat supposedly belonging to Thomas Hudson. A lengthy search resulted in the discovery and purchase of two identical 1940-vintage near-replicas of Hemingway's famous boat, *Pilar*. (RIGHT) Operator lines up a camera angle with the Panaflex camera, which appears to be dangling perilously over the sea, suspended from the end of a Chapman boom. Two cameras were routinely used for filming to save time.

communication is startling. There are people with whom the communication is so clear that you can short-cut everything, and now that we've done two and a half pictures together, the whole working relationship has developed to a degree where we understand each other very, very clearly — and it makes it radically easier, I must say. He is certainly a thorough professional — enormously inventive and very fast. From a director's point of view, what makes the kind of rapport we have so gratifying is not only seeing the kind of result on the screen that you had hoped for, but the fact that you get more chance to work with your cast during your time on the set. This is in contrast to the kind of experience I've had from time to time, where you're really occupying the set about 10% of the time because of the apparent technical inhibition that might affect the production, from the cameraman's point of view.

**QUESTION:** I've noticed during the time I've been here that you've used two cameras on practically every set-up. Aside from the obvious advantages in action sequences, are there any other reasons for using two cameras so consistently?

**SCHAFFNER:** We have used two cameras most of the way through and that has been very, very productive. We've picked up time and we wouldn't be where we are on the schedule right now if it hadn't been for the use of two cameras all the way along. In point of fact, many of these sequences, I think, would simply have bogged down if we

hadn't used two cameras — like the shark sequence and the fishing sequence and what will eventually be the final boat-chase sequence when he's in Cuba. But beyond that, we've been able to use a second camera where I had not really thought we could, and that's been nothing but to our advantage. Now, the use of two cameras is not new, very obviously, but it has proved very helpful on this production.

**QUESTION:** When you say that you've used two cameras where you never thought you could, what sort of sequences are you talking about?

**SCHAFFNER:** Well, obviously, you'll get into an interior situation where you won't be able to use two cameras. In a critical lighting situation you can't do it, but we've had so much work along the dock and in the harbor that we've been able to use two. Indeed, on the exteriors of the house, where normally you would approach such scenes with a sense of using only one camera, we've been able to use two and pick up time in that way.

**QUESTION:** You've got some excellent sets on this picture, but I'm especially impressed with the one Bill Creber designed as Hudson's house, the set where everything comes apart to make room for lights and cameras. That must have worked very well for you.

**SCHAFFNER:** Yes. All of them really have worked very well. When we first scouted Kukuiula Bay as a possible

location for the harbor in the film, the geography of the place wasn't at all what I had visualized. I had, somehow or other, developed a mental image of the harbor as having a flow of buildings in the background — which represented the top of a T — with the dock being the leg of the T coming straight out into the water and, of course, it isn't that way at all. The dock is to one side of the harbor, and I had to wrestle against my own preconcept of how it should look in order to accommodate the action. Then Bill sketched out what he thought it should be and that changed my thinking, of course. Now it works extraordinarily well. ■

Perhaps the quietest director in the film industry, Franklin Schaffner sits in tranquil solitude, while the crew goes busily about their work.





## MULTI-SURFACE IMAGES

Continued from Page 1252

consideration was the use of audio-visual media in the schools. Many scenes in Don's script called for re-photographing images on closed-circuit television and photographing students and teachers at work beside television screens and projected images. Still another factor was the requirement that the three school buildings be of different ages and architectural styles: one from the turn of the century, one from the 1940's, and one ultra-modern "open school."

Luckily we found all three schools in the same suburban district. The school board read our script, decided that the film would make a contribution to education, and gave their approval.

Somewhat more difficult was the job of finding locations for the adult

characters in OPTIONS.

The Businessman, as scripted, was to be a top-level executive in a huge steel company. His maturity was to be tested as he made a decision to remodel part of his plant. To photograph this we had to find not only a steel plant in need of refurbishing but a company willing to allow us to film a substandard plant.

Visit after visit yielded permission to shoot the more modern aspects of steel production — no go on the older plants — until, finally, a public relations man at Inland Steel read the script, understood what we were trying to do, and not only gave us the use of a dilapidated plant but sent along a company photographer to help with the shoot.

The result was a dramatic walk through a fiery rolling and cutting mill and a meaningful look at a vast crane yard, with steel being loaded on rail-

road cars.

Our "Homemaker" character presented an easier location problem to solve. Faced with the decision of committing her little son to open-heart surgery, the woman had to be photographed in "working" hospital situations and in a moving ambulance.

The ambulance, with its equipment and two attendants, was obtained for a fee, but hospital locations were offered on a more difficult basis. The hospital's public relations staff could notify us of location availabilities only two hours before those availabilities existed.

To maintain our shooting rate, we asked the hospital to call us at our alternate location whenever an availability occurred. When a call came, we immediately called up actors and facilities, which were on standby.

Ideally we were at the hospital in one

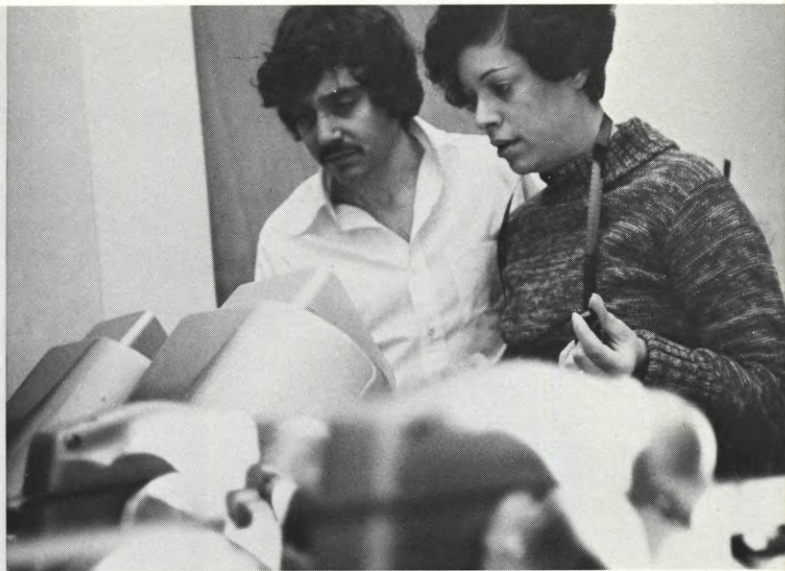
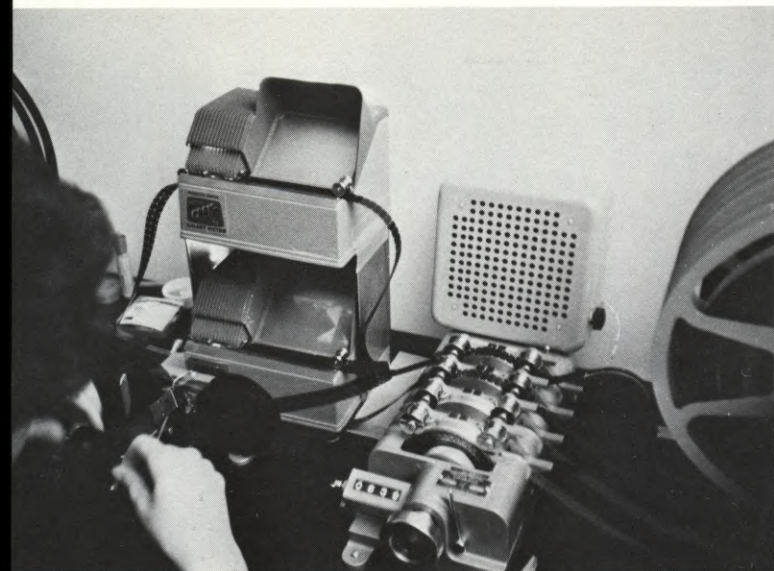
(LEFT) Frame blow-up of live action combined with televised images. Exposure was based on the maximum brilliance the television monitors could produce. (RIGHT) The crew donned scuba gear to photograph underwater biology study. Shooting took place in a suburban swimming pool, with the Bolex camera mounted in an underwater housing.



(LEFT) The warning light of an ambulance superimposed over a view through ambulance windshield. A moment later, a zoom-out reveals that action is taking place among moving plastic shapes. (RIGHT) Frame blow-up illustrates how OPTIONS gives insight into character through superimposition. In this example the reacher is listening to a critique by his associates. Closeup reveals his attitudes.







(LEFT) An inexpensive but effective way of handling multiple images: Editor Barbara Kaplan cuts "OPTIONS" at an editing table that has two viewers and a motorized synchronizer. (RIGHT) Don Klugman and Barbara Kaplan check the two-strand workprint of "OPTIONS" on a multi-head upright Moviola. Projection was accomplished by overlapping the images with two sync-motor projectors.

hour, juiced and lighted, rehearsed and ready to shoot in another. A difficult system, but one that enabled us to use sophisticated medical equipment, examining rooms, and real hospital personnel.

Casting non-professional actors is a tricky business, and *OPTIONS* employed some fifty teachers and students in important, tightly-scripted speaking parts. How was casting handled? In each of the three high schools, a "facilitator" was appointed — the school's drama teacher or the head of the Radio-TV department. The facilitator was given directions and forms for recruitment.

Then, in a single day, director Don Klugman, script secretary Sissel Hanssen and I visited all three schools, screened recruits on the basis of age, sex and acting ability, appointed extras and bit parts, and held a readoff for principal parts. Exhausting, but it worked!

Don Klugman and Ron Osso ordinarily work with the smallest possible crew, the lightest equipment. Director, cameraman, assistant, script secretary, grip, gaffer, recordist — these, with the special help of two TV students at each school, were our crew. With the Bolex EBM we carried eight Colortran 1000's and three Lowel Totalight kits. Our dolly was a wheelchair — our tape recorder an Uher 1000 with three Sony tie-clip mikes and a shotgun for difficult situations.

An Auricon with TV shutter enabled us to shoot interesting combinations of live and televised material in these modern TV-equipped schools. So often did we shoot television that it became standard practice for our crew to adjust

the television units for maximum brightness, and to use readings off the TV screens to determine the general light level of the set.

Re-photographing motion pictures and slides in the classroom, our problem was to boost the brightness of the projected image to an ASA that was photographable on 7252. One obvious solution was to use Xenon projectors, which we did. Another solution, incorporated later in the filming, was to cover the school projection screens with Scotchlite. This, combined with Xenon projection, gave us the necessary screen brilliance.

To demonstrate an interesting out-of-school activity, our crew donned scuba gear and photographed a student collecting biological specimens underwater. A Bolex underwater camera housing and a 10mm. wide-angle lens did the job in a suburban swimming pool. To give the illusion of authenticity, we held sea plants, mounted on long poles, within camera range, and we turned live fish loose in the pool. Because the fish had difficulty surviving in chlorinated water, we found ourselves constantly recovering them, giving them R&R in fresh water, and replacing them with new specimens.

Another outside activity took a group of students and our crew to the communications room of the Cook County Police Department, where a house electrician informed us that 20,000 watts of power were available for our lights. After everything blew, he reevaluated, and the shoot proceeded smoothly.

Even during night shooting outdoors we did not compromise our decision to

shoot 7252 at its normal ASA. Eight battery-operated Sun-Guns were standard night equipment for our crew, and we shot at wide aperture to capture relatively dim headlights and street signs.

Among the many special effects in *OPTIONS* are the photography of polarized crystal slides in the school laboratory and a shot of a photographic print developing before our eyes — a simple match-dissolve with locked-down camera. Transparent globes and lab equipment are used as transitions, and long shots and close-ups of the same moving subject are superimposed for greater insight into the meaning of that subject.

When initial location shooting was complete, the real job of constructing *OPTIONS* began. It was then that Don Klugman, working with film editor Barbara Kaplan, began to shoot the colorful multisurface images that give this film its unique character.

"The ideal equipment," says Don, "would have been a horizontal animation stand with aerial image capability. You see, our three-dimensional translucent shapes were actually plastic cubes, slightly altered from a set purchased in a toy store. And the moving pictures that appear on and between the cubes were projected with a pair of sync-motor Bell and Howell projectors.

"Doing the job the low-budget way, we used a periscope-like arrangement of mirrors to either front-project or rear-project a two-inch-wide picture that we re-photographed with our crystal-controlled camera. As the film's ideas became more complex, the

**Continued on Page 1283**



**A CAMERAMAN'S DIARY**  
Continued from Page 1227

night. This means shooting many interior-to-exterior shots. I found this to be a real challenge. I felt some more tests were necessary, as I really didn't know of any day-for-night, interior-to-exterior having been shot before. Of course, many exterior day-for-night shots have been made with much success over the past years. Shooting out to sea with a very hot ocean and sky line, I had my work cut out for me.

I first put a combination of 85-60 1/4" gels on the windows; then I added two more 60 neutrals and, by building up the foreground inside to about 600 footcandles, it looked like it might work. 85-N60 is two 3/4 stops, as a 30 neutral is one stop, and an 85 is 3/4 of a stop; so I had six 3/4 stops less light now from exterior to interior.

Now, waiting to see these tests, I can shoot from the results. I made many day-for-night tests at different balances. I even tried some shots without filters on the windows or doors, using arc lights.

**SEPTEMBER 22:**

Today was the big day! I feel all got off to a good start. I was shooting day exterior; then later in the week night-for-night. I worked at 100 footcandles and force-developed the night work. By doing this, I had a larger selection of lenses.

I have now seen the day-for-night tests and I'm happy to write that they look very promising. The tests showed that the gels on the windows and doors worked best. They will limit the entrance and exit type shots, but the Director liked the look so much that he will work with me on this situation.

The first week of shooting is over. We learned a lot this week about working on the boat. As I wrote before, it is only 36 feet long, with a small cabin interior. The new Panaflex camera really made it possible to shoot within the boat without taking it apart, so no mock-up had to be built. I can't say enough in praise of this camera.

We also had a chance to work off the modules that were built to work around the boat. Three 20 x 20 modules were built. Each unit can be self-propelled, or they can be bolted together for a larger floating platform.

**SEPTEMBER 29:**

This week we started working at the "Hudson House". This is George C. Scott's home in the picture. It has been an interesting week for me, as we shot a lot of the interior-to-exterior day-for-night. I have seen some of it and think it



On the Kauai location for "ISLANDS IN THE STREAM", Fred Koenekamp's birthday was lavishly celebrated with a "luau" (the Hawaiian word for "party" or "feast"), complete with pretty girl cheerleaders (?), a camera-embazoned birthday cake and a brass band. The hard-working crew found little after-hours fun on this sparsely populated island and took advantage of such occasions to let off steam.

is a most rewarding look. It's very interesting to see Scott working at his desk while through the big French doors you can just make out the rolling surf.

**OCTOBER 6:**

During this week, we were back at the harbor for more day scenes. We have encountered a number of back-light conditions. I used the pola-screen to help with the hot back-light on the water. You can get some very interesting shots this way.

Wednesday we will start one of the more interesting sequences to be shot for this picture — the shark sequence. One of Scott's sons is spear fishing when a Hammerhead shark appears. This is definitely not meant to be another "JAWS" scene. Rather, it is just one scene to show the relationship developing between Scott and his sons. This will be shot inside a reef area for two reasons. The first is the story point. They are supposed to be swimming inside a reef and the calmer water makes it possible to work off the modules. The Art Department has furnished us with a flying bridge mock-up to work off the beach. It's too rough at sea. (I would prefer to work right in the water for true realism.) We are expecting the new Nelson Tyler Gyro Mount this week to try out for the water work. I am most anxious to see how much this new unit can help us in rough water.

Although we had some rough water inside the reef, the week went well. Again, we shot off the 36-foot boat and

the modules. The modules ride much better than the boat. Due to a four-day time delay on the film shipments, we won't see this film or the Gyro test film until next week. There is some underwater work to be done to complete this sequence, but we will not do it until later.

**OCTOBER 14:**

The Gyro test was most impressive. We will use this unit aboard the mother ship and for the fishing sequence. It seems to take out most of the horizontal roll. Except for the underwater shots, we completed the shark scenes.

**OCTOBER 19:**

We started working at sea on the modules and the 36-foot Hudson boat. We have what we call a "mother ship", which is a small freighter that tows the modules. Mounted on the forward deck is the Chapman Boom which can lower its arm over the side of the ship for up-and-down movement and put the camera right on top of the water.

The 750-amp Generator is also on the mother ship and about 150 feet of cable is run out to the modules. I have two Brutes and four 9-lights with us on the modules. With lights, cameras, Grip equipment and around 23 people aboard, it does get crowded at times.

Today we had rough weather and some weldings broke loose, so we had to come in to port. By the way, this is the fishing sequence we are working  
Continued on Page 1278



# STRAIGHT TALK ABOUT LENSES

## A NEW CAMERA DOESN'T HAVE TO MEAN A NEW LENS

Your present lens can probably be converted to fit your new camera, at a fraction of the cost of replacing it. Even viewfinder type lenses can be converted to fit the new reflex cameras.

### CHOOSE THE MOUNT YOU NEED:



"C" MOUNT



ECLAIR CA-1



STANDARD  
ARRI



CP-16R



ARRI S/B  
LOCK TYPE



BOLEX RX

### AND HAVE US INSTALL IT ON YOUR LENS.

All mounts are precision manufactured of the finest materials available to original factory tolerances. Our skilled technicians can perform most modifications within one week. Prices vary with lens type and the mount desired. Call or write today for a quotation.

### PROTECT YOUR INVESTMENT — Regular maintenance will:

1. Protect your costly zoom lens from internal wear,
2. Avoid costly breakdown during use, and
3. Keep optical and mechanical performance at its best for maximum sharpness.

If it has been more than two years since your lens was checked, you should make arrangements to have it tested and serviced by qualified personnel. With 27 years experience on all types of motion picture optics, Century Precision Cine/Optics has the skill, facilities, and parts inventory to repair Angenieux, Canon, Zeiss, Schneider, Rank Taylor Hobson, SOM Berthiot-Pan Cinor, and all fine cine lenses. That's why leading film producers all over the world choose us for their optics servicing.

With FREE ESTIMATES, fast service, unmatched experience, and competitive prices, you cannot afford to trust your lens to anyone less qualified. IT COSTS LESS TO DO IT RIGHT. We will gladly answer any questions about optical conversions and lens servicing.

**Century** precision cine/optics  
10661 BURBANK BLVD., NORTH HOLLYWOOD, CALIF 91601

TELEX: 66-2419

(213) 766-3715

## Cooke Varotal or Cine Varotal?

In the studio or on location . . . Your choice of two superb zooms for professional 35mm cinematography from Taylor Hobson.



Available EXCLUSIVELY in the U.S.A. from:

**cinema E products**  
CORPORATION

Technology In The Service Of Creativity

2037 Granville Avenue, Los Angeles, California 90025

Telephone: (213) 478-0711 ■ Telex: 69-1339 ■ Cable: Cinedevco



## FILM VS. VIDEO MYTHS Continued from Page 1250

edge of their own medium among the video producers have, however, made the sponsors realize that their video adventures were not as rewarding in communicative and economical terms as they had expected. Several have 'reverted' to film.

The world's major broadcasting companies have one quality in common with France. They all seem to think that the world ends at their own borders. At least, they choose to act as if the outside world did not exist. I have followed several BKSTS, SMPTE and NFTU conferences on 'Film vs/and/or Tape' and got the impression that the future life of cinematography depends on whether CBS, BBC or the Swedish Broadcasting Corporation close down their film departments.

Such is, of course, not the case. They may do whatever they like with film — encourage it, discourage it or kill it. Instructional films, educational films, promotional films, industrial films, scientific films, political films, short films, feature films, pornographic films, amateur films, experimental films, advertising films and animated films will still continue to be produced in large numbers. Eastman Kodak, the labs, the cinematographers, the film producers and Ed diGiulio will still live and perhaps even flourish. I fear that the broadcasters have over-estimated their own importance in this case. They are important, they are trendsetters, but not the centre of gravity in the world of film.

### Where ENG fails

I'm convinced that the broadcasters have entered a period of accelerating ENG usage. According to my 'two-steps-forward-and-one-reverse' theory, they will probably rediscover film in a few years after a series of ENG tests and applications. The whole truth about ENG has not been revealed. I spoke recently to a film cameraman who had just done his first job with a portable, professional television camera. He described it as 'fun', but complained that interior interviews with a person in front of a window with a sunlit exterior could not be done. The electronics could not cope with the contrasts. Furthermore, when he was shooting at dusk and happened to pan across a bright part of the winter sky, the strangest things happened to the image. That could not be done.

It has been said that ENG saves money and in some cases also labour. It might also create new jobs (window-filter applicator with a personal staple-

gun). If these new electronic marvels cannot cope with a sunlit exterior without the aid of three layers of ND filter or 4kW of HMI light, or handle quick pans from dark to light or vice versa, then they have disqualified themselves as news-gathering tools right from the start. But you can, of course, try to avoid windows and skies, all those things which bring depths into the picture.

Mr. J. Flaherty of CBS, the loudest and most eloquent ENG spokesman I have met so far, does not speak of these things. He lives in the abstract world of numbers, statistics and conferences, presumably removed from the dirt of practicalities. In principle he is probably right. Theoretically, it's probably possible to save as much as 30-40 per cent of your operational costs by switching from film to ENG. However, as far as practice and grass-roots reality is concerned, I prefer to add a large Swanbergian question mark.

We must also not forget that the rapid growth of ENG in American television is partly dictated by the fact that the NTSC system allows the use of simpler and cheaper recording technology than applies to SECAM and PAL (quantity television vs. quality television). From what I understand, ENG à la CBS is economically viable only in areas with a so-called high news event frequency, i.e.: big cities. In Sweden we are experiencing a gradual decentralisation and we find large corporations and government departments and agencies spreading all over the country, far beyond the reach of microwave transmitters. The American ENG experiences — and enthusiasm, I might add — cannot be directly applied to Swedish news-gathering.

### Defining 'video'

I have used the word 'video' often here. I have also used it carelessly and in such a way that it implies knowledge of what it really means. Do you know what 'video' means?

Video, as a collective term or basic concept, is not defined in most dictionaries or encyclopaedias. Nord-Video, the Scandinavian group of video publishers, defines video in the following way: *Video comes from Latin and means 'to see'. In the video concept we can also include photographs, films and still films. Generally, the meaning of the word is limited to such audiovisual programmes which are created by means of video signals (the electronic signals which produce images on a TV screen).*

Lars Edling, video expert at the

University of Lund, writes: *The formal difference between television and video is that television involves broadcasting, while video means playback from a video recorder connected to a TV monitor. This fundamental difference makes television and video two completely different media.*

The Videogram Committee at the Swedish Broadcasting Corporation writes the following in their latest report: *In a technical sense video means systems, equipment, etc., for the recording and playback of moving pictures with sound, in which the information in one or several stages exists in the form of video signals.*

The Swedish Broadcasting Corporation defines video in such a way as to also include their own main activity, broadcasting. They seem to have the ambition of being everything that has anything to do with television. Very large numbers of videotape programmes are being produced today outside the large broadcasting companies. The American video industry produced over 13,000 programme titles in 1973, which was more than NBC, CBS and ABC broadcast together during prime time the same year.

Personally I prefer to exclude broadcast television from my definition of video, otherwise you might end up with chaos or submit to the general semantic pollution. My definition, not necessarily better than the others, goes as follows: *Video means all recording of pictures and sound intended to be shown on a television screen but not broadcast by a public broadcasting company.*

### Video for communities

Why all this confusion? Film is film and video is video, isn't it? It is not quite that simple. Video is today becoming as complex, diverse and unsurveyable as film has been for many years. When we pros speak about film/video we refer to a battle between two methods of information storage, between two information carriers — film and videotape. Video, however, is also a medium and a new industry based on non-broadcast television. It's the growing activity in videocassette production and distribution, CCTV, sales training, education/information and, of course, the approaching video discs, which have given new meaning to the word 'video' and added confusion to a previously stable world of media and communication concepts.

Video today is no longer limited to large corporations, institutions and government agencies. Today we have  
Continued on Page 1289



# Harvey Plastrik is cleaning up.

Harvey Plastrik at Computer Opticals was using twelve drums of film cleaner a year. Now he's using three.

He found out about CAN-AM ultrasonic film cleaning machine.

And not only is he saving over 75% on his cleaning chemicals (which are widely available), he also finds CAN-AM a quieter, faster and more dependable machine.

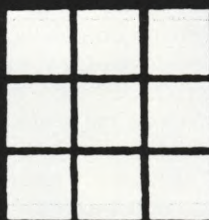
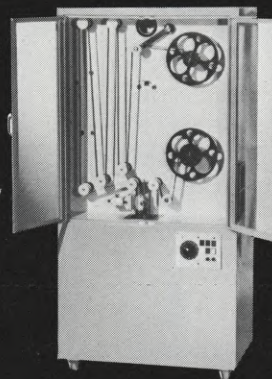
Small wonder. CAN-AM has all power-driven rollers to eliminate strain. Adjustable tension control. Self contained replenishing reservoir. And constant fluid filtration for particles down to one micron.

CAN-AM's patented rollers accommodate all sizes of film from super 8 to 35 without adapters. And film is dried by natural evaporation using filtered air.

Compare CAN-AM with any other film cleaning machine. You'll agree with Harvey Plastrik. "CAN-AM out-cleans anything on the market."

Let P/E/S—Photographic Equipment Service, Inc.—show how you can clean up—quieter, faster, and cheaper.

Call Ed Willette, Hans Jaggi or Pat Mathison at (914) 235-2720. Or write.



695 Main Street  
New Rochelle, New York 10801  
(914) 235-2720

Full sales and service available in Europe.

## Specializing in meeting impossible demands.



LIGHTING. GRIP EQUIPMENT.  
LOCATION VANS. PROPS. GENERATORS.  
RENTALS/SALES/SERVICE

**Charles Ross** INC.

333 WEST 52nd ST., N.Y., N.Y. 10019 (212) CI 6-5470

For more than fifty years Charles Ross has made the impossible possible for the thousands of motion picture producers who demand the finest and most modern lighting equipment. We are the East's only specialist. We have been around the longest. We have the largest lighting inventory. We even supply lighting suppliers.

For a replacement bulb or lighting for a complete motion picture or television set, call Ross first!

SOLE DISTRIBUTOR OF MOLE-RICHARDSON COMPANY PRODUCTS IN GREATER NEW YORK

Send for a rental rate schedule!



**Charles Ross** INC.

333 West 52nd Street  
New York, N.Y. 10019



Gentlemen: Please send me a free copy of your rental rates.

NAME \_\_\_\_\_  
FIRM \_\_\_\_\_  
STREET \_\_\_\_\_  
CITY \_\_\_\_\_ STATE \_\_\_\_\_ ZIP \_\_\_\_\_



# The most beautiful sound in the world is what you hear from AKG.



## Victor Duncan agrees

To a soundman, the most beautiful sound is always hearing the playback just as the script called for it, without coloration. And that's just what you get with AKG professional microphone systems. The AKG system is based on a solid state preamplifier that easily adapts to different condenser microphone capsules. Utilizing these capsules, the AKG can become omnidirectional, cardioid or a shotgun, without the need to buy separate microphones for each application.

The AKG system gives you total versatility in a compact, easy to handle case. Thirty second conversion allows you to adapt instantly to any sound recording requirements. And the AKG system is priced far less than the cost of individual specialty microphones.

Stop by your nearest Victor Duncan Sales office and let us demonstrate an AKG system tailored for your needs. It's a beautiful sound.....Victor Duncan agrees.

the check and double check people



**VICTOR DUNCAN, INC.**

Exclusive Midwest distributor of Panavision®

200 East Ontario, Chicago, Ill. 60611 (312) 321-9406  
2659 Fondren, Dallas, Texas 75206 (214) 369-1165  
11043 Gratiot, Detroit, Michigan 48213 (313) 371-4920

Member Professional  
Motion Picture  
Equipment Association  
**pmpca**

## PREVENTIVE MAINTENANCE

Continued from Page 1235

Remove the magazine from the camera, and also remove the take-up door.

Take a pair of scissors and cut the film, one piece at a time in the following places on the take-up side:

Before and after the bottom take-up film gate.

At the top and bottom on the pressure plate.

Before and after the top take-up film gate.

On the feed side: Before and after film gate.

Examine each piece of film as you cut it, looking for the origin of any scratch. These procedures can be used for both 16mm and 35mm cameras.

A special note should be made here about removing the magazine doors. When you take the first one off, place it face up on a counter or table. If you take the second one off, lay one on top of the other. If you lay the inside of the door directly on the table there is a tendency to pick up the miscellaneous dirt from the area. The object, of course, is to keep hairs and dust from being transported with the film.

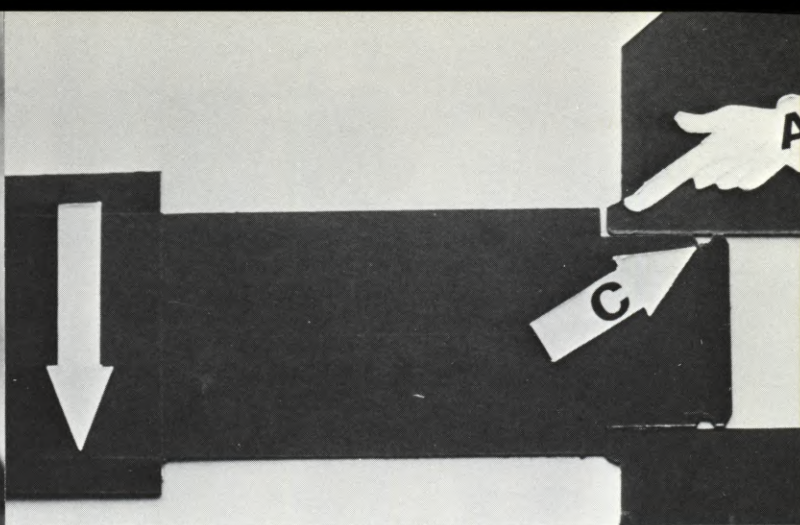
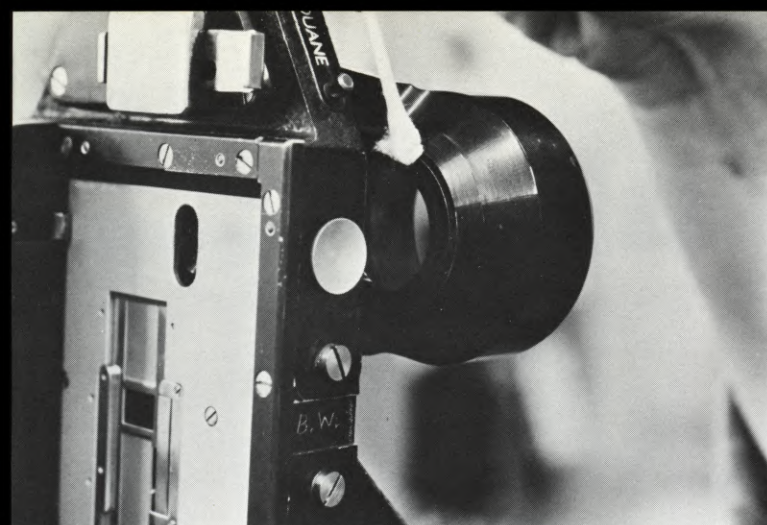
If the door needs cleaning (and they sometimes do,) use a brush or canned air. Canned air should be *used only as directed*. For doors that have a corduroy type of insulation, a piece of tape rolled around your hand will clean them quite adequately.

For NPR owners who need to run film through the magazine with the take-up door off, you must first open the film guide, which is normally open when the

(ABOUT THE AUTHOR: Dianne T. Saba, owner of Saba Camera Service, has lectured for cinema students and professionals alike at various universities and seminars. She especially enjoys the cinema student and frequently entertains questions at her shop. Saba Camera Service is the official agent in the United States and Mexico for Soremecl Eclair USA Inc.)







(LEFT) FIGURE 7 — Check seating areas, lens and camera for dirt or burrs. Wipe dirt off with a clean, soft cloth or, for stubborn dirt, use a wooden toothpick or an orange stick (never metal). (RIGHT) FIGURE 8 — Zoom lenses present problems because of their weight. Therefore, it is extremely important to use a lens support and eliminate any possibility of the heavy zoom pulling away from the camera, thereby changing focal plane distance.

door is on the magazine. To open the guide, push it forward with your finger and insert a Q-tip. You can now run film through without the film guide scratching.

#### CABLE TROUBLESHOOTING

There is nothing more frustrating than having a production down because of a faulty cable. It is recommended that you always carry extras. But, if you're having a problem and you suspect a broken wire, you can troubleshoot in the field. (If the cables are not outfitted with Canon-type connectors, or if the plug has more than 5 pins, it can be difficult to repair in the field.)

However, if you want to give it a go, disassemble the plug and look for the obvious (like a broken wire.) While looking at the face of the plug, note that each pin is numbered. Also the wires are different colors. One end of the plug should correspond with the other, (i.e., the white wire on the #2 pin of the female plug will also be the white wire on the #2 pin of the male plug.) If you find only one broken wire, it will be obvious where it belongs. But, if you find more than one broken wire, you

should be able to carefully trace the correct wiring by following the numbers on the pins. You will, however, need a soldering iron to make these repairs adequately.

#### CATASTROPHES OF NATURE

If you are a cinematographer who gets hit by an ocean wave or two, damage to your camera would probably be localized to the lens, IF you have covered the rest of your camera firmly in plastic. (Garbage bags, which can be purchased at any market and are extremely easy to store, make a good camera-cover when you're around water, and are flexible enough to allow you to still handle the camera.) But if your camera is not covered, and your equipment gets wet or has been dropped in sand, you have a real problem. The first thing to remember is to NEVER run the camera when it is wet or sandy. The second is to rinse the equipment in FRESH water as fast as possible to retard the corrosion of the salt water. Separate the motor and lens from the camera body and handle each one as follows:

Camera: Leave it in FRESH water, in a

plastic bag or bucket, and get it to the repair shop as quickly as possible. Do not let it dry out.

Motor: Rinse it in fresh water, and leave it out to dry.

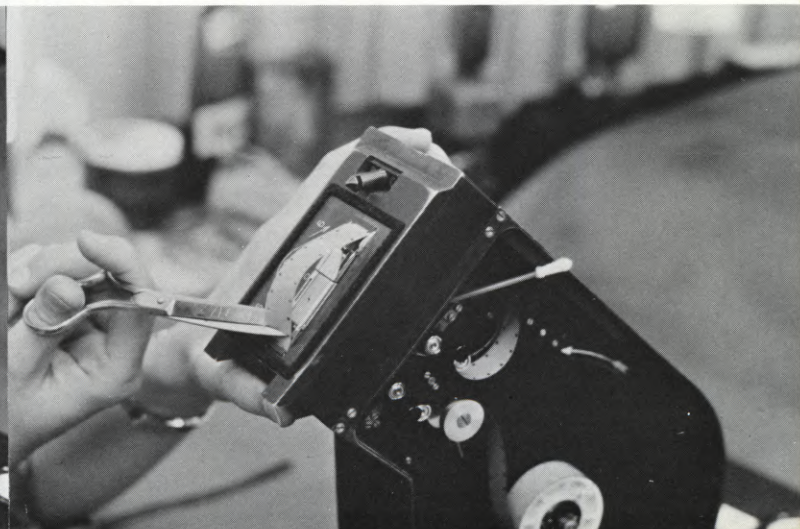
Lens: Rinse it in fresh water and leave it out to dry.

*Do not soak the lens*, as water can enter easily and cause more damage. Look at the front element and check for water inside. If you find water, and have the proper size screwdriver, you can remove four screws and drain the water out. Around the focus ring you will find eight small screws. Remove two from one side and two from the opposite side. Then set the lens at an angle to drain the water out.

If you have water inside the zoom barrel, remove the three screws directly above the focus collar. Then unscrew the lens and drain out the water. If you do not have a screwdriver, or if the screws will not come loose easily, leave the lens in the upright position so that water can do as little damage as possible.

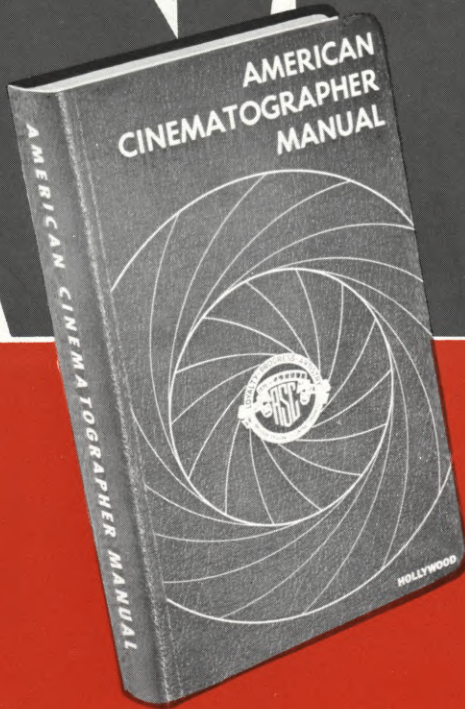
In any case, get the equipment to the  
**Continued on Page 1282**

(LEFT) FIGURE 9 — To test for scratching, run a few feet of film through the camera, remove film from the takeup core and angle it so that the light will reflect off of it. (RIGHT) FIGURE 10 — Remove the magazine from the camera and also remove the takeup door. With a scissors, cut the film, one piece at a time, in the following places: Before and after the bottom takeup film gate, at the top and bottom on the pressure plate, before and after the top takeup gate. Examine each piece, looking for the origin of the scratch.





# NEW!



## FOURTH EDITION

### AMERICAN CINEMATOGRAPHER MANUAL

COMPILED AND EDITED BY  
TWO VETERAN CINEMATOGRAPHERS

CHARLES G. CLARKE, A.S.C.  
and  
WALTER STRENGE, A.S.C.

This easy-to-carry, pocket-size, concise, book contains practical, informative text, tables, charts, diagrams, drawings and listings of all the latest production equipment and filming techniques in use today!

Key word printed on the edge of every right-hand page provides INSTANT INDEX for quickly locating desired data!

## MOST COMPREHENSIVE COMPILATION OF CINEMATOGRAPHIC DATA EVER PUBLISHED !

Completely updated Filter, Lighting and Lens sections. Data on most recent camera developments. Complete shooting data for Theatrical, Non-theatrical and Television cinematographers filming 16mm, 35mm or 65mm anamorphic or spherical motion pictures in any aspect ratio, in color or black and white, silent or sync-sound, in the studio or on location.

An Official Publication of the  
**AMERICAN SOCIETY OF  
CINEMATOGRAPHERS**

Dealers are invited to write for  
quantity discounts.

**THE AMERICAN CINEMATOGRAPHER MANUAL**  
P.O. BOX 2230  
HOLLYWOOD, CALIFORNIA 90028  
4TH EDITION

Please send \_\_\_\_\_ copies of the AMERICAN CINEMATOGRAPHER MANUAL @ 18.50 each, postpaid. No C.O.D.'s

NAME.....

STREET.....

CITY.....STATE.....ZIP.....

California residents please remit 6% Sales Tax (\$1.13 per Manual).  
Foreign Buyers please pay by International Money Order or U. S. Funds.



**WORLD OF HEMINGWAY**  
Continued from Page 1229

have taken as much effort there as anywhere else. After looking all over we realized that we were not going to find the ultimate location without going farther and farther from any kind of population center, with everything beginning to get scarcer and scarcer. So when the decision was made to take a really hard look at the Hawaiian Islands, I was aware that Ken knew more about that area than anybody, so I said to him: "Rather than make another big trip, why don't you show us the three best places — right off the top of your head — and we'll take a look at those three places and think about them." The place where we finally built the little harbor was one of them. We looked at a couple of others on Maui, but it would have been too tough to shoot around the mountains there. The one on Kauai looked like the most ideal place for the harbor terrainwise, and the next consideration was what exactly to do with it. I thought about it for a couple of days and slept on it. Then I sketched a few things and, working virtually from those thumbnail sketches, that's exactly what we built.

**QUESTION:** As a matter of curiosity, had any consideration been given to the possibility of shooting the picture in California?

**CREBER:** That would have seemed like an easy solution, except that there is very little of the California coastline that has the right water conditions or the pictorial cloud conditions. (The clouds can work for and against the cameraman. They look beautiful, but can drive him crazy trying to match.) At any rate, when we finally found the ideal location for that harbor, we sent a four-wheel-drive vehicle out and it immediately got stuck in the sand. The head of Transportation said: "Gee, couldn't we pick an easier location to get to?" And I said: "If we're going to get it on film, that's the place to do it and we'll just have to find the right equipment to get there. I've been all over this island and that's the only place to do this sequence." This picture has been an effort on everyone's part, but it's the kind of thing I like to do. I'd just like to do a whole string of "personal" pictures, one after another.

**QUESTION:** Speaking of that little harbor, with all those structures that look as though they've been there forever — is it true that you built all of that from scratch?

**CREBER:** Yes. Everything you see there now we built. There just wasn't any-



**How to spend less for postage.  
Even with the new, higher rates.**

Switch to Plio-Magic® reels and shipping cases. They weigh considerably less than conventional packing, so you still save money, even with the 26% postal increase.

And the money-saving features of Plio-Magic® don't stop there! Plio-Magic® cases last longer than fiber cases, and require less handling time. There's a wide assortment of colors, enabling color coding. They can be imprinted with your company's or library's logo and address. And only PRC cases offer the new, improved **Twist-Ease™ Locking System**, for simple opening and closing.

Plio-Magic® reels last longer, too, and are safer around children. Together, they make a lightweight, super-tough package that does a better job of protecting your film while costing you less.

Now more than ever, you need Plio-Magic®. Call or write today for literature and details.

**PLIO-MAGIC®**

**PRC of AMERICA**

Plastic Reel Corporation of America  
A wholly owned subsidiary of Williamhouse-Regency, Inc.  
640 South Commercial Avenue, Carlstadt, New Jersey 07072 (201) 933-9125  
7165 Willoughby Avenue, Hollywood, CA 90046 (213) 851-7532

Available in Canada through Rutherford Photo Ltd.



# TIFFEN

Available at Dealers throughout the World.



## PROTECTIVE FILTER POUCH

This maximum security long wearing ruggedly constructed Naugahyde pouch is reinforced with a contrasting stitched Naugahyde binding. The inside is lined with 100% Nylon over foam cushioning for freedom from lint and super protection. A long life Velcro closure seals the pouch with a touch of the finger, thus eliminating the potential damage from old fashioned pressure-snap closures. Sizes to fit: 3x3 and Series 9, 4x4 and 4 1/2" round, 5x5 and 138mm round, 5x6, 6x6, and 6.6x6.6.



## VIEWING FILTER

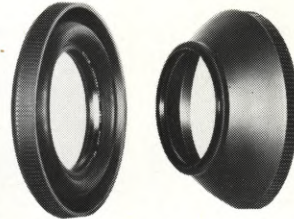
Permits the visual interpretation of shadow and high-lighted details corresponding to the film's emulsion. Color and b/w types available; interchangeable filters. With neck chain; pocket case.

No. 1 Black and White Viewing Filter 90/50.

No. 2 Color Viewing Filter ND 2.0.

No. 3 For faster color films and lower light levels.

Other densities & replacement glass available on request.



## PROFESSIONAL RUBBER LENS SHADE

This shade, designed for heavy duty use, is made from a specially formulated rubber compound and is engineered to meet the rigors of all weather shooting. Highly protective of lens, it collapses easily for storage. Circular molded light baffles eliminate extraneous reflections and flare. Available in 86mm, Series 9 and 9 WA, 4 1/2" and 4 1/2" WA.



## FLUORESCENT LIGHT FILTERS FL-B FL-D

Two Color Correction Filters designed to give accurate color renditions with average fluorescent lighting. Eliminates the deep blue-green cast ordinarily resultant from shooting color films with fluorescent lights. Can be used with the broad soft illumination of overhead and desk-type fluorescent lamps without regard to daylight, cool white or warm white rating of the lamps.

# TIFFEN

71 Jane Street, Roslyn Heights, N.Y. 11577  
(516) 621-2700 Telex 96-7748

SUSTAINING  
**SMPTE**  
MEMBER

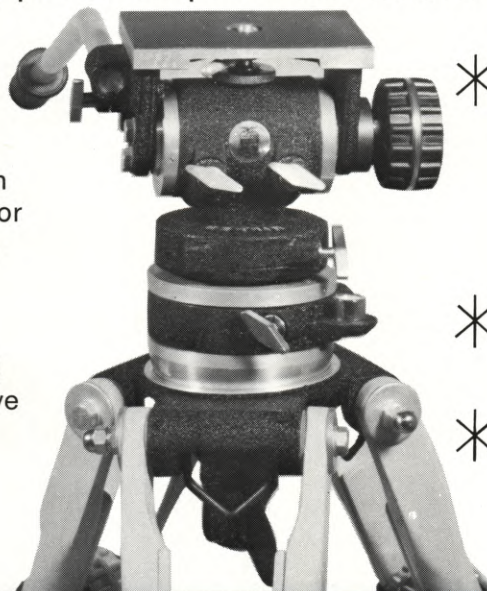
Member Professional  
Motion Picture  
Equipment Association  
**mppea**

# "MILLER".. ALWAYS ONE STEP AHEAD

The new Senior "F" and Light Professional Tripod Heads to supplement present "Miller" Lines.

### FEATURES INCLUDE:

- \* Pan Unit permits (full 360°) horizontal traverse between full fluid drag and free slip for filming fast moving objects or events.
- \* Full fluid action tilt (full 90°) either way with more positive tilt control and Lock, in any traverse.



- \* The "F" Head will support medium weight 16mm Cameras up to 15 lbs. and the LP-2 Professional Fluid Head will support up to 30 lbs. Both are available with or without the Slip Pan Unit.
- \* Slip Pan Units are available to convert older "Miller" Fluid Head models for this use.
- \* There is a Miller Tripod ideally suited to every Miller Head.

Model shown is LP-2  
PROFESSIONAL FLUID HEAD

U.S.A. PATENT NO's. 3,712,571 and 3,592,429  
Others Pending.

## MILLER PROFESSIONAL EQUIPMENT

6500 Santa Monica Boulevard / Hollywood, California 90038 / Phone: (213) 466-5105



thing there before, except a few houses way off in the distance. Included in what we built was a kind of pavilion, because we wanted the kind of structure we could see through. We didn't want to block what we had come there to see. We wanted to keep as much of that environment in the picture as possible. All of the other buildings were situated so that they were in the middle of open places, so that we could see as much of the terrain as possible.

**QUESTION: That one large imposing structure, the Commissioner's house — that isn't used for shooting practical interiors, is it?**

**CREBER:** No. The inside is used only for storage, and we put just enough in back of the facade to cover the main camera angle. That's really the one actual "movie set" out there. But there again, that building, to my mind, had to be a structure worthy of burning down, as called for in the script. If it had been merely the Commissioner's shack, who the hell would care? Some people were kind of surprised at how big it got, but I said: "Well, the guy is the Commissioner of the island, so it should be a fairly important building in order to give him some substance." So, as it worked out, that building, although we never get near it, really becomes the balance of the whole set. It kind of makes it appear that there is more population there and it is a bit more important than if it had been a smaller, lesser building. It was probably the toughest one of all to build, because of the height. But inside they just built a tower and a fence around it and put the rafters in. Then, as things went around the corner, we just quit working on it. If you aren't going to see it, we don't build anymore. It was hard to stop, because everyone wanted to finish that building. I caught them shingling the back one day, and said: "Oh no, just tar paper. The camera will never get back there."

**QUESTION: Did you use all local construction people, or did you bring some of them with you?**

**CREBER:** We brought six or eight people from Hollywood and the rest were obtained through a local contractor. They were very good people. In fact, our guys were saying that there were three or four of the local people that they wished we had in Hollywood, because of their enthusiasm and workmanship and ability to handle tools. I watched the good ones work, people who had never seen the likes of us before, and they sure fell into the spirit

## SHERWOOD OAKS EXPERIMENTAL COLLEGE

offers an informal environment for those who wish to study film making as taught by the most knowledgeable professional writers, directors and producers in the industry.

Guests or instructors have included:

Tony Bill  
John Cassavetes  
Robert DeNiro  
Bill Fraker  
John Milius  
Martin Scorsese  
Vilmos Zsigmond



### SHERWOOD OAKS EXPERIMENTAL COLLEGE

6353 Hollywood Boulevard  
Hollywood, California 90028  
(213) 462-0669

A Non-Profit Educational Organization

## Introducing the perfect go-togethers for Cine/ENG

Ideal combination of lightweight, high capacity, portability.



### HERCULES HYDRO

Weight: 8.5 lbs. (3.9 kg.)  
Wt. capacity: 50 lbs. (22.7 kg.)  
Dimensions: 6" x 5" x 6" (cm.: 15.2 x 12.7 x 15.2)  
Tilt: ±80°  
Pan: 360°  
Code No. 4-52810-3

### HERCULES HYDRO

fluid head designed specifically for Cine/ENG cameras to 50 lbs. (22.7 kg.). Provides effortless, smooth pan and tilt movements. Spring-loaded to counter balance uneven weight. Independent pan, tilt tension and

lock controls, for pro-level performance. Telescoping control handle, standard. Dual handle operation, too.

**SAMSON Cine/ENG** tripod designed for use with fluid heads. Made completely of aluminum. Lightweight, extremely rigid, completely adjustable. Features Pro Jr. mounting base, quick head connect/disconnect, telescoping legs. Can use any of QUICK-SET's four fluid heads.

Send for complete details!

### SAMSON Cine/ENG

Weight: 9 lbs. (4.1 kg.)  
Wt. capacity: 70 lbs. (31.8 kg.)  
Max. ht.: 58" (147.3 cm.)  
Min. ht.: 32" (81.3 cm.)  
Code No. 4-70150-4

## QUICK-SET

INCORPORATED



instrument-positioning equipment

3650 Woodhead Drive, Northbrook, Ill. 60062  
Phone: (312) 498-0700  
Telex: 72-4362



# THE SOUNDMAN'S DREAM MACHINE

# STELLAVOX



Patented *no-flywheel* motor...absolutely constant speeds, flawless performance under all conditions...even upside down. Unsurpassed professional sound quality. Many exclusive time, work and money saving features.

CALL, WRITE or WIRE FOR FULL INFORMATION and NAME OF NEAREST DEALER

Service throughout the U.S. and abroad.



## STELLAVOX

CORPORATION OF AMERICA

California: 8463 CANOGA AVE., CANOGA PARK, 91304 • (213) 998-8118 • TELEX 69 8547  
New York: 19 GAZZA BOULEVARD, FARMINGDALE, LONG ISLAND 11735 • (516) 752-0019 • TELEX 12 6372



### 16MM CAMERAS

Arriflex M w/Synch Motor, Variable Motor, 4,400'	
Mags and Case	Used \$6500.00
Beaulieu R16ES	Used \$ 789.95
Beaulieu R16B Turret w/Reinforcing	Used \$ 995.00
Beaulieu R16 Spring Drive	Used \$ 295.00
Beaulieu R16B w/12.5x75 Angenieux	Used \$1995.00
Beaulieu 16 News	Phone
200' Beaulieu Magazine	Used \$ 225.00
Bell & Howell 70DR w/3 Lenses	Used \$ 449.95
Bell & Howell 70 DR Body	Used \$ 289.95
Bell & Howell 70DL	Used \$ 189.95

### BOLEX

Bolex Rex V w/12x120 Angenieux, MST Motor, Recharger, Power Pack, 400' Mag, Torque Motor and Alum Case	Used \$3500.00
Bolex H 16 Rex V	New \$1099.95
Bolex H 16 EBM w/16x100 POE Vario Switar, Power Grip, Battery Charger, 3' Cable	New \$1995.00
Bolex 16 EL	New \$2464.00
Bolex Torque Motor	New \$ 189.95
Bolex 400' Magazine	New \$ 239.95
Bolex H16 w/3 Lenses	Used \$ 449.95
Bolex 16 w/25mm Lytar	Used \$ 189.95
Bolex Rex	Used \$ 389.95

### LENSES

Arri 25mm f1.4 Cine Xenon	Used \$ 379.95
Arri 50mm f2.0 Cine Xenon	Used \$ 389.95

### PROJECTORS

Kodak Pagent AV 126 TR	New \$ 689.95
Kodak Pagent AV 256 TR	New \$ 799.95
Kodak Pagent AV 12 E 6	New \$ 659.95
Kodak 199 Analyst	New \$ 579.95
Elmo 16 AR	New \$1195.00
Elmo 250 HS	New \$ 695.00
Silma Bivox Super 8 Sound	Demo \$ 299.95
Bauer 16/16 Studio	Mint Phone
Heurtier ST 42 Stereo	Phone
Bell & Howell 552 Auto 16mm Sound	Used \$ 349.95
Kodak VP-1 TV Super 8 Videoplayer	New \$1289.00

### SOUND

Stellavox SP-7 Tape Recorder	Demo \$2500.00
Sony TC-142 Tape Recorder	New \$ 177.95
Sony TC-153 SD Tape Recorder	New \$ 274.95
Sony TC-150 Tape Recorder	New \$ 146.95
Sony TC-56 Tape Recorder	New \$ 124.95
Uher 4000L Tape Recorder	Used \$ 289.95
Electro-Voice 644 "Spot" Mic	Used \$ 74.95
Electro-Voice 642 Shotgun Mic	Used \$ 149.95

### MISCELLANEOUS

Miller F Head	\$ 284.95
Miller F Head w/slip pan	\$ 344.95
Matte Box for Arri/Beaulieu	\$ 259.95
Hervic Location Light Kit	\$ 285.00
Zeiss 16mm Moviscope	New \$ 199.95
Zeiss Moviscope Rewinds	New \$ 54.95

## Professional Arriflex Seminar Thursday, November 11, 1976

Bill Russell, Arriflex Western Operations Manager, will conduct a seminar on the fine aspects of cinematography with the Arriflex 16mm SR. The seminar is free and open to the public on a first come, first serve basis. For reservations call or write Bel Air Camera & Hi-Fi.

### Arriflex

Arriflex 16mm SB	New \$4136.00
Arriflex 16mm SBGS	New \$5104.00
Arriflex 16mm SR	New Phone

### Zeiss Lenses

12mm Super Speed T1.3	New \$1560.00
16mm Super Speed T1.3	New \$1462.00
25mm Super Speed T1.3	New \$1311.00

MAIL AND PHONE ORDERS PROMPTLY FILLED

Payments: We accept Certified Checks or Money Orders. Personal checks cause delay. To use your Bank Americard or Mastercharge, send card number and expiration date. 20% deposit required for all C.O.D.'s.  
Shipping Charges: Extra. Please send est. chgs. Excess will be refunded. All shpg. chgs. not paid will be billed C.O.D. Min. \$3.00 Shpg. chg. Prices are valid when submitted for publication but may change without notice. Quantities are limited.

## bel air camera & hi-fi

927 Westwood Blvd., Los Angeles, CA 90024, Phone: (213) 477-9569 - (213) 879-9616

and got a great deal of satisfaction from what they were doing. We built all the sets in just 34 working days.

**QUESTION:** Hudson's house — was that also built from scratch?

*CREBER:* Yes. That kind of location is always tough on art directors, from the standpoint of preserving what you saw that made you choose it on the day that you did. There was a road and existing trees that we wanted to preserve, so we set up a plan to build another road that would come in behind the road. We walked it off and came in with a bulldozer that graded the whole working area, avoiding the grove of trees and working back around behind where the house would be. The bulldozer operator was told to come in over the dune, drop his blade and level the site going backwards. Then we built a fence all the way around the site about three feet out from where the foundation would be. The workmen on the set never went out into the undergrowth during the entire time that they were building the house. It was all done from the back. When it was completed, we took the fence down, raked a little bit, and the place was just as virgin as the day we got there. I've seen sites like that which just got demolished during the building process, necessitating complete replanting. All we did was put in five palm trees, which we watered every day.

**QUESTION:** When the shooting is completed, you'll have to put everything back the way it was originally — right?

*CREBER:* Yes, that's the problem. But I think we can grade out the dune so that it will have a natural contour and then plant a little bit. That's a very arid part of the island, so not too much would grow unless you really tended it. The growth that's there now is really old growth.

**QUESTION:** That main building at the little harbor — the two-story structure with the bar on the lower floor — that has completely practical interiors and appears to have been built exactly as a real bar would be, with no concessions made for lights or cameras. Was this done because of the current vogue for shooting in actual interiors where the existing structure can't be changed? In other words, when you build such a set, do you build it just like a real structure would be?

*CREBER:* Well, sometimes I do, but that wasn't the case here. That building has



a lot of wild walls. The back wall comes out; all the porch walls come out; one post in the room is wild, and it's also the kind of structure that is easily cut into. I discussed all that with Fred Koenekamp and told him that if he had to go up to mount any of his lights high, we could simply cut through with a skilsaw and pull out some of the boards. It would be easy to do because it's all open frame. It isn't a double wall thing. So if they had to go back out through a wall that wasn't wild, they could simply kick the boards out. It would be easier to do that and repair it than build a whole structure that is wild.

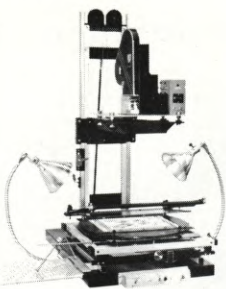
**QUESTION: Has the Hudson house been built in the same way?**

**CREBER:** No, that's one that really is completely wild. It's actually a pavilion that's standing on six posts, and all of the exterior and interior walls are wild. It's designed in such a way that all the exterior walls are surrounded by porches or sheds. This means that you can pull out any wall and drop a tarp and the structure is already there to house the camera. The bathroom was the set for the first sequence shot in the house. All the walls were wild, with a ceiling piece just laid on top. The floor is a complete structural system by itself, with floorboards laid over plywood. This provides a double floor that is as strong as that of any sound stage, so that you can use dollies and cranes on it. My objective in designing a set like the Hudson house is, hopefully, to have it appear on the screen as much like an actual live interior as possible, but with as many conveniences of a sound stage as possible.

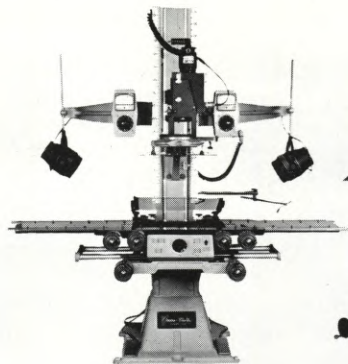
**QUESTION: I noticed inside that former airplane hangar, where the fake Spitfires are being built, two small sets. Can you tell me about those?**

**CREBER:** Well, the main sets in this picture, like the Hudson house and the buildings at the small harbor that we've been talking about, are what I call exterior-interior sets, because they allow for continuous action from the outside into the buildings or vice versa. Aside from that, 99% of the sequences are done in outdoor situations, making this virtually an outdoor picture. However, there is one short sequence that is out of context with the rest of the picture in that respect, but which involves two small interior sets. One of them is the interior of a New England boys' school where a voice-over letter is being read by one of Hudson's sons. There are two of his sons at that school

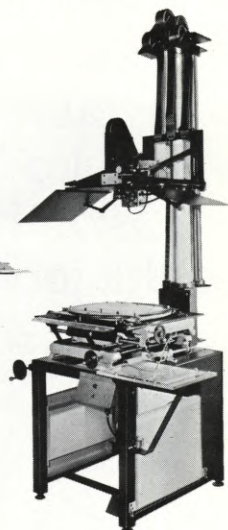
## Meet the FAX FAMILY



'JR.' THRIFTFAX  
CAMERA STAND



FAX-RICHARDSON  
CAMERA STAND



THRIFTFAX  
CAMERA STAND



ANIMATOR'S DISCS,  
COMPOUNDS



For all ANIMATION/TITLING/FILMSTRIP production and preparation equipment, for animation supplies of all sorts, get the facts, first, from FAX Company. A two-part descriptive price list covering "The Mechanics of Animation" and "The Art of Animation" is yours free, on request. Tell us of special needs.

### FAX COMPANY

374 S. Fair Oaks Ave., Pasadena, Calif. 91105 - 213/681-3084

## JOHN BARRY GROUP

SALES — RENTAL — SERVICE  
CAMERAS — SOUND  
LIGHTING — EDITING  
— EVERYTHING —

We are your one-stop equipment house in Australia and Southeast Asia with the most comprehensive range of 16mm and 35mm motion picture/television production equipment available for SALE or RENTAL



105 Reserve Road  
Artarmon, N.S.W. 2064  
Sydney, Australia.  
Telephone: 439-6955  
TELEX: 24482

## AUSTRALIA



If you prefer 1/10° temperature control of your photo-chemicals and you are tired of “over-shooting” with calrod-type heaters, we make precision heat-pumps that will do the job right.

All are equipped with either type 316 Stainless or Hastelloy-C exchangers coupled with magnetic-drive plastic pumps of various flows and pressures to recirculate your jacket or chemistry systems. A 10-turn pot. makes temperature adjustment easy from 30°-110°F.

Since they are heat-pumps, not only are they power savers, but those working above ambient recapture the heat lost to the air from your process and return it to the chemistry. This results in a definite savings in electricity for your process heating and room air conditioning.

This is another smart way to quality while keeping many of your dollars for power at home.

**FRIGIDHEAT**  
 BOX 12037 or 1-615-383-4255  
 NASHVILLE, TENNESSEE

and their discussion of getting a letter from Dad adds up to a half-day's shooting. The other piece of that sequence that is sort of out of context with the mainstream of the picture takes place in an airbase outside of London during the Battle of Britain, where the third son, the older one, is shown receiving a letter. This is an odd thing that happens once in a while in production design. You read a script and do a set list and establish a location look for the picture and a certain visual flow and then you discover that there are a couple of things on the list that are really against everything else in the picture — like the two sets I've just mentioned.

**QUESTION: What do you do then?**

CREBER: You discipline yourself to give them as much thought and attention as the major sets that account for the overall visual style. In this case, we researched New England boys' schools, picked up what would be an interesting look for a school dormitory and then designed a set that seemed to suit the action and mood. I am a great disbeliever in the co-called “non-descript” set. When you first read the script for almost any film, you find that there is a hotel room or a New England dormitory, or a motel room, or something like that, and you find yourself tempted to think: “Well, it's any kind of room. Who cares?” Instead I try to do something interesting with every single set that I do. It's got to mean something. I learned this from an experience I had working for George Cukor on the film “JUSTINE” and it has become, as much as I can make it, my philosophy of art direction. On that picture the script called for a hospital room, a kind of throwaway thing. It had been done, while I was away, as a cover set and they had found a set in the studio and put together this hospital room with a bed and a chair and that's about all. When Mr. Cukor came onto the picture to replace the former director I showed him the set and he said: “Where are we? What is this room? What does it mean? I don't understand it.” I said: “Well, it's a hospital room — and what's in a hospital room?” He said: “Let me ask you a question. If it was 1939 and we were in Alexandria, Egypt [the locale of the story] and we were in a private room of the Jewish hospital, surely the room wouldn't look like this, would it?” And I knew exactly what he meant. That room didn't mean anything. It didn't establish character. It didn't tell you anything about anything. It was just a room. So much work is done in motion



pictures on sets like that. But right then, as far as I was concerned, it began to sink in that every set has got to mean something to the story; it's got to make people believe. Another thing Mr. Cukor said that same day was: "You've got to remember something about our business: it's make-believe. The audience goes into the theatre knowing that they are about to see a story fabricated for the screen. It's our challenge to make them believe our make-believe. Everything should go toward directing their attention to the story and making them believe every single frame of film — because the words coming out of those actors won't mean a thing if they are surrounded with something that is fake." In the case of Hudson's house, once I had satisfied myself that I believed that entire set, the next step was to get Frank Schaffner to approve it, but the ultimate was to have George C. Scott walk in there and say: "This is what it ought to be." When an actor is comfortable in a set and really believes it, that set helps him get into the role. In this case, the set was accepted 100%.

**QUESTION: "ISLANDS IN THE STREAM" is being shot entirely on location, although the interiors are not real buildings, but breakaway (wild wall) sets built to look like the real thing. Do you think the current trend to shoot completely on location is necessarily the best way to go from the artistic and economic standpoints?**

**CREBER:** I believe very seriously that what the camera sees is the last court of appeal, so the answer to your question depends upon the degree of meticulous planning that goes into a film, plus the skill of the technicians working on it. To use "JUSTINE" as an example again, when George Cukor took over that picture, he threw out whole scenes because he wanted to re-shoot them, but he kept the long shots because they were elaborate exteriors shot on location in North Africa and the studio insisted that he save them. All of the reshooting was to be done in the studio, and because I had been on the North African location and had done all the research and paid attention to how they mix colors over there, we were able to build a section of marketplace that was a good match. The set decorator had also been with us in North Africa and he came up with all kinds of jars of olives to dress the set. I wanted to build our set outside because the original footage had been shot in bright African sunlight, but Leon Shamroy, who was the Director of Photography, insisted that it be built on the sound

# THE FILM SCHOOL™

Once upon a time GREAT BIG STUDIOS made all the IMPORTANT FILMS. It took lots of heavy equipment and lots of heavy people.

Times have changed. Today it's lightweight equipment. Small crews. Independent film-makers.

The Film School is the place to learn independent film-making. Located just 30 minutes south of San Francisco in Half Moon Bay. Students work with award winning professional film-makers.

With only eight students in a class, there's enough 16mm equipment to go around, and instructors have time to help you individually.

Beginners or advanced students. Day or evening classes. But most important, we care about you and how we can teach you techniques it took us years to master. Send for our free catalog:

The Film School,  
P. O. Box 907, Dept. C,  
Half Moon Bay, CA 94019  
or call (415) 726-5537.



## Your equipment. It's only as good as the lab in back of it.



You invest the most you can afford in your equipment. After all, it's what you make your living with. For the same reason, you spend precious time selecting a lab that is of the same caliber as your equipment.

Photo Processors follows this same philosophy. We've invested in the finest color equipment available. Our team of color specialists is among the best in the country. They are here to assure you that you will receive the best end-product possible. Send your next job to us and let us prove it. We can back you up.



**photo processors inc.**

Box 2116A, Austin, Texas 78767  
AC 512-472-6926

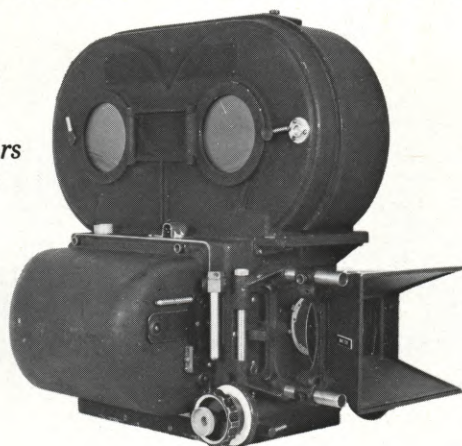


# Mitchell BNC camera

with four 1000 ft magazines,  
220 V-3 phase-50 Hz sync. motor  
and start box.

Fully serviced by our own engineers  
before despatch. Double exposure  
film test provided.

# \$7,999



Also available: Set of 7 COOKE SPEED PANCHRO LENSES  
(18-25-32-40-50-75 & 100mm) plus  
Mitchell side-finder and set of matched auto-parallax focus cams.

# \$2,500.00

MULTI-DUTY MOTOR 96 V-DC/220 V-AC with DC and AC  
start boxes, cables etc.

# \$600.00

Many other Mitchell accessories in excellent condition available. Just tell us what  
you need — AC and DC motors, magazines, lenses, frame cutters, obie lights, etc.  
Write to: Dennis Rosario,

Rentacamera Ltd., 8-12 Broadwick St. London W1V 1FH, England.

stage. When the picture was cut, you could not tell the difference between the African footage and the footage shot on the sound stage. This made me realize that we might be back at a point where, as in the old days, it would be possible to shoot all the long master shots on location (perhaps even using doubles) and shoot the rest of the picture on the backlot and in the sound stages. This could well be the way to go on a really big picture that might be almost impossible to shoot on location because of the logistics and expense involved — granted, of course, that very careful planning is done and the people involved really know what they're doing.

**QUESTION:** You have coming up for "ISLANDS IN THE STREAM" a wild chase that takes place on the river, a purely exterior sequence. How involved will you be in that kind of sequence?

*CREBER:* Where I come in is in the making of a plan or diagram of this chase. Frank Schaffner first worked out a progression for the action. Then we designed a hypothetical river and fit all his action elements into it, stringing them out so that you could actually follow the chase through our map, so to speak. In the shooting, all these individual areas on the map will be depicted as separate locations, but with a continuous flow of action. We do this sort of thing a lot. On "POSEIDON ADVENTURE", the first thing we did was take an upside-down ship in profile and cut the side away. We then planned how much distance it would take to go through the action of the story. The sets were planned accordingly, with attention to left-to-right and right-to-left movement and all that. As a result, the director always knew where people should come into a set and where they were going and where they should turn in a corridor. There was a consistent progression of action, even though the sets were built on eight different sound stages. I assume that everyone plans the same way on any picture where there is some kind of trek involved. You take the trek and map the movement, so that all of the pieces will fit together. I've even plugged in a sketch of each set-up for the chase through our hypothetical island. What we're going to try to do later is find an island in the Bahamas that has the same elements that we'll shoot here and then do a bird's-eye view from a helicopter to tie the geography together. In fact, I know the island that would be perfect for such a transition shot.



Daily processing of VNF 7240 at 250 ASA

**ECO - 7390** The ultimate film reproduction in sharpness, color & silversound

**ECO - EF 7389** Excellent low contrast print rendering with silversound for TV or projection.

16mm EKTACHROME ECO 7252

16mm ULTRASONIC CLEANING

16mm ME-4 PROCESSING, VNF-7240

16mm CREATIVE EDITING (Kem Table)

16mm COLOR WORKPRINTING

16mm CONFORMING A&B ROLLS

16mm RELEASE PRINTING 3400K - 5400K

16mm CREATIVE SOUND PRODUCTION (Interlock)

16mm OPTICAL SOUND TRANSFER

16mm POSTFOGGING OF EF

16mm SILVERSOUNDTRACK APPLICATION

16mm TITLES & ART WORK

16mm OPTICAL PRINTING

## CHANNEL 8 COLOR LABS

905 JACKSON STREET/P.O. BOX 1410

TAMPA, FLORIDA 33601/813/229-7781

FOR A FREE BROCHURE AND PRICE LIST, WRITE TO ABOVE ADDRESS



**QUESTION:** It seems ironical to me that here on a volcanic island like Kauai the mountains are the most beautiful element of the scenery, but you don't dare shoot them.

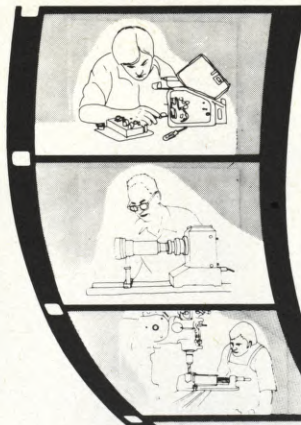
**CREBER:** That's not what this story is about, unfortunately. It's as limiting as a sound stage when maybe it's a bright sunny day outside, but you're inside the stage shooting against a sky backing.

**QUESTION:** Can you tell me a bit about the boats used in this picture?

**CREBER:** Whenever you open a script and see the word "boats" you've got a problem. What made it worse in this case was that we needed period boats — old boats that would still run. We looked at every boat in Hawaiian waters and came up with a few that would run, but nothing that was really right. We really felt that, for all practical purposes, we needed two identical boats — one as a back-up in case anything went wrong. As time got shorter and we grew more desperate I went all out to find the right boats. After looking at hundreds in Los Angeles harbor, I looked at 9,000 boats in Newport Bay, which is the number reportedly based there. Finally, at the last marina in Newport, I found a boat that was just right. Starting with that one, and by means of some dogged detective work, I eventually found seven matching 36-foot cruisers, all built by the Stevens Company in 1936, 1937 and 1938. There was one in Dana Point, one in Alamedas Bay and one in Newport. Eventually we also found one in Newport Beach, one at the St. Francis Yacht Club and one in Sausalito. I never could find the seventh one, but I didn't need to. At that point I turned the problem over to our Boat Master, Manny Lewis, and told him to get the two best boats at the best price and ship them. There were subtle differences, but we made them look exactly alike by means of repainting and refinishing. By the time we had added flying bridges, outriggers and all that, the boats were 90% duplicates of Hemingway's Pilar.

**QUESTION:** It sounds like your job involves much more than artistic and creative ability — bulldog persistence, for one thing.

**CREBER:** True. But it's a great career and I love it. I don't think that there is anything that I could do that would be as interesting or as diversified. On each picture you can put to use abstract knowledge you've learned from the ones that went before. But the mechanics are never the same. It's always a new deal. ■



Member Professional  
Motion Picture  
Equipment Association  
**mpaea**

### We also feature:

- Super Speed Service for NEWS Operations.
- SALES OF ALL MAJOR LINES OF MOTION PICTURE EQUIPMENT.
- Competitive Prices.
- Complete Rental Department for 16mm Cameras; Nagras; Lights; Lenses and Necessary Accessories.

*Gordon Yoder, Inc.*  
FORMERLY  
PROFESSIONAL CINE PRODUCTS, INC.

# We Want YOUR Service Work

## SERVICE IN OUR SHOP

ANGENIEUX LENSES. Zoom and fixed focal length.  
ANGENIEUX ELECTRONIC CAMERA LENSES.  
ARRIFLEX CAMERAS - BOLEX CAMERAS  
AURICON CAMERAS. All types of conversions.  
BELL & HOWELL FILMOS. Slotting and repairs. (2-day service, reasonable prices)  
CANON SCOOPIC CAMERAS. Authorized factory repair (both in and out of warranty); sound and silent.  
CP-16 CAMERAS.  
YODER CRYSTAL 16 CAMERAS.

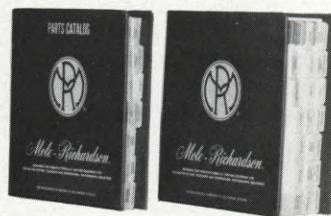
AMPLIFIERS OF ALL KINDS.  
POWER PACKS OF ALL KINDS.  
REBUILD MAGNETIC HEADS OF ALL KINDS.

P.O. BOX 20296  
2911 LADYBIRD LANE  
DALLAS, TEXAS 75220  
(Area Code 214) 357-3045 or 357-2725

## MICROFILMED BACK ISSUES OF AMERICAN CINEMATOGRAPHER

1921 through 1967 available

**UNIVERSITY MICROFILMS**  
EDITORIAL SERVICES  
300 N. ZEEB RD.  
ANN ARBOR, MICHIGAN 48106



*Mole-Richardson Co.*

937 NORTH SYCAMORE AVENUE  
HOLLYWOOD, CALIFORNIA 90038  
Telephone (213) 851-0111

DESIGNERS AND MANUFACTURERS  
OF LIGHTING EQUIPMENT FOR THE  
MOTION PICTURE, TELEVISION AND  
PROFESSIONAL PHOTOGRAPHIC INDUSTRIES

Please send

\_\_\_\_\_ Equipment Catalog @ \$10.00  
\_\_\_\_\_ Parts Catalog @ \$8.00

Name \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_

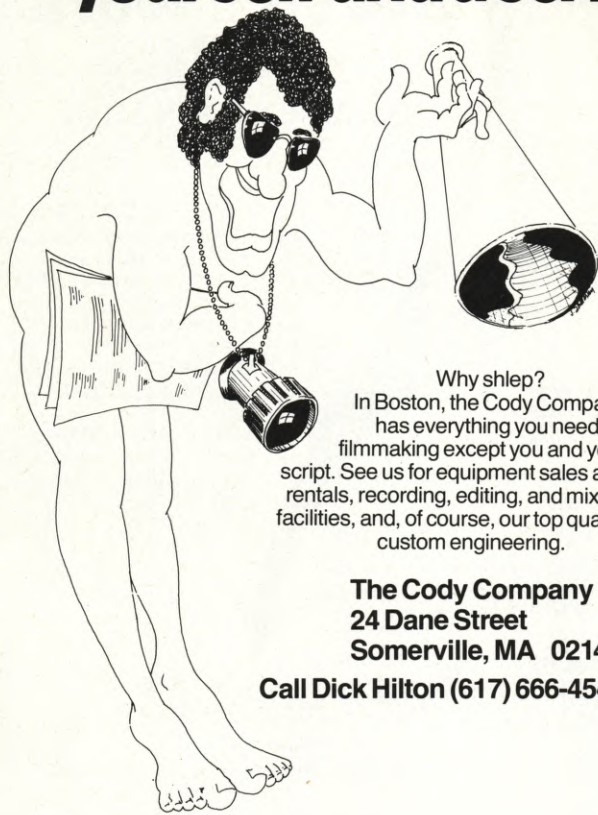
State \_\_\_\_\_

Zip \_\_\_\_\_

Add \$5.00 per catalog for surface parcel post outside U.S.A.  
Add \$17.00 per catalog for air parcel post outside U.S.A.



# Shooting in New England? Now all you need is yourself and a script.



Why shlep?  
In Boston, the Cody Company has everything you need for filmmaking except you and your script. See us for equipment sales and rentals, recording, editing, and mixing facilities, and, of course, our top quality custom engineering.

**The Cody Company**  
24 Dane Street  
Somerville, MA 02143  
Call Dick Hilton (617) 666-4540

## The London International Film School



The intensive two year Diploma Course in Applied film-making continues. It is designed to make graduates fully professional in their creative work. It will also be extended to include a full-time Diploma Course in Video.

Courses start on January 10th and April 25th 1977. Write to the Student Councillor Dept., London International Film School, 24 Shelton Street, London WC2H 9HP, England.

### A CAMERAMAN'S DIARY Continued from Page 1262

on. We will still try later for some good marlin fishing footage that can be cut into this scene, as well as for the blue backing.

The modules, with the Hudson boat docked within them, are working out well. We are getting shots that leave no question whether you are at sea. I find my biggest problem is trying to stay in some direction so that the sun will work for me. I don't mean full sun, but half or three-quarter and some back-light shots. The sky is really hot at times, so balance is a big problem. Clouds, too, pose a problem. They come and go so quickly here that it's quite impossible to match backgrounds all day.

For the past several days, we have been fighting weather. It is cloudy most of the day with some rain, so it's very difficult to start a sequence and finish it with the same type of light. Lots of time is lost waiting for the light changes. I would like it to stay cloudy all day as I like the look of overcast skies.

#### OCTOBER 27:

This has been quite a week — rough seas and so much overcast. We made some modification on the boat module and it is really seaworthy now. We can also obtain more camera angles than we could before. Thursday, we worked off the mother ship and used the Chapman Boom. We mounted the new Tyler Gyro Mount on it and it seems to be working very well. With the boom arm up 22' and the ship rolling in the seas, believe me, you need some help. Next week Cameraman Bill Fraker is coming over to shoot the marlin fishing. I hope he has better luck than I did. I have suggested the Tyler Mount to him for the long lens shooting. I know it will be a very big help to him, too.

#### NOVEMBER 2:

Clouds, clouds and more clouds! It seems every day it's harder to put in a complete shooting day. We have now seen the footage shot with the Tyler Gyro Mount and it is very good. We are working around the Hudson House and again at the small boat harbor. We are to have a Production meeting this Sunday, November 9, as we will start filming the big ocean sequence in about ten days. This is where Hudson leaves for Cuba and picks up refugees at sea and tries to help them. They are attacked by two Coast Guard boats and quite an action sequence develops. We will again be at sea shooting off the modules that have worked so well.

We are scheduled to shoot day-for-night out at sea, but, I believe I will try to



talk them into shooting night-for-night. The sky and horizon lines are at times so very hot that, at this point, it would be nearly impossible to obtain a good day-for-night balance. We would have to really burn up faces with light and I have found that sometimes it's just not possible to obtain that much light. Also, it is very hard on actors. (I'm happy to say that the Director agreed with me and this work will be night shooting.)

**NOVEMBER 10:**

We finished shooting in two of our major sets, the Hudson House and the small boat harbor. I'm also glad to finish the last day-for-night interior-to-exterior shots. I feel the day-for-night has worked out quite well. I only hope others feel the same. Friday, I shot my first blue-backing shots without a Special Effects Cameraman standing by. It will be some time before I know if it all worked out well. The other Unit is still trying for marlin fishing footage that goes into the blue screen. This is a process I really want to learn much more about, as today there are only a few Special Effects Cameramen still working.

The Company is now back working off the Hudson Boat on the module set-up. In fact, the rest of our shooting schedule is all on the water. It will continue for about three to four weeks. We are working nights, and lighting the very small interior of the cabin on the boat is, at times, a problem. When I say problem, I mean you can't always get just exactly the look you would like to have. In this case, it usually ends up a fuller look than I would like for night interior.

*(Footnote: Cameraman Bill Fraker had no better luck than we did in getting the marlin footage, so it had to be obtained elsewhere.)*

**NOVEMBER 17:**

This week we worked part days and part nights. The night work is now finished. We have two more days at sea on the modules. I know the whole company will be happy to have this work completed. Although the module system has worked very well, it's still tough working conditions. The seas have been very rough. Thursday, we had a real thrill while working on the 36-foot Hudson Boat. The seas were fairly rough and we got into a following sea. A big wave just picked up the boat and we were sure we were going over. I didn't know a boat could lean so far and not go on over. We will start shooting in the river area next week. That is our last set, except for some post-production shots I have mentioned from time to time.

# LEASE-PURCHASE

## MAGNASYNC and MOVIOLA

MIX YOUR VOICE, MUSIC AND EFFECTS TRACKS IN THE EDITING ROOM WITH THE MAGNASYNC SERIES 3000 INSERT RECORDER SYSTEM INTERLOCKED WITH ONE OF THE MOVIOLA CONSOLE EDITORS AND OUR MIXER.



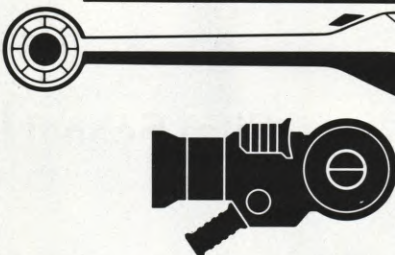
TIME SHARING

**LAUMIC CO., INC.**  
306 EAST 39th ST., NEW YORK, N. Y. 10016  
SALES • SERVICE • RENTALS

Isn't it nice to know we'll be around to service your equipment . . . **AFTER THE DEAL IS CLOSED?**

2  
or  
6  
And MIX

For a demonstration or additional information contact STU MANN (212) 889-3300-1-2



## TYLER

camera systems

### VIBRATION ISOLATION HELICOPTER CAMERA MOUNTS FOR 16 / 35 / 70 mm AND TV PHOTOGRAPHY

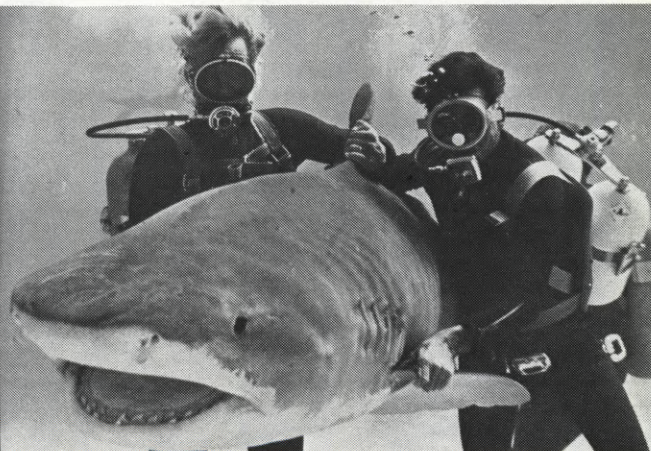
Hollywood 213-989-4420 — San Francisco 415-864-4644 — Toronto 416-920-5424 — New York 212-431-3930  
 Miami 305-757-5988 — London 01-452-8090 — Paris 328-5830 — Sydney 43-1162  
 Send for brochure — Tyler Camera Systems, 14218 Aetna Street, Van Nuys, California 91401 U.S.A.

## HELICOPTERS    CAMERAMEN    CAMERA PILOTS

*Jordan Klein*

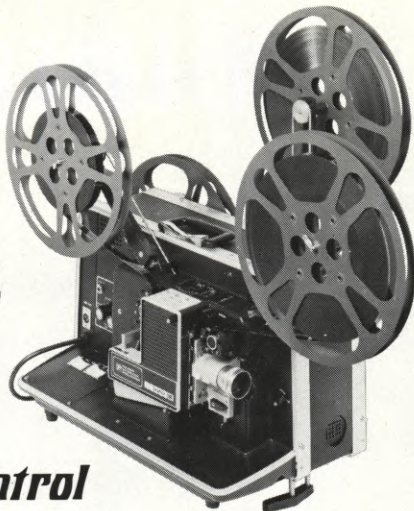
UNDERWATER CAMERAMAN  
MEMBER I.A.T.S.E.  
LOCAL 666  
UNDERWATER PROPS  
SETS  
DESIGN & CONSTRUCTION  
STOCK  
FOOTAGE LIBRARY

**JORDAN KLEIN, INC.**  
3131 N. E. 188 ST., MIAMI, FLA. 33180  
P. O. BOX 630605, MIAMI, FLA. 33163  
(305) 931-2300





# PALMER INTERLOCK PROJECTORS



now with  
*Dynamic Syne Control*

This exclusive new feature allows picture and magnetic track relationship to be adjusted while the projector is running. Palmer interlocks are dependable, easy to operate, and gentle on all kinds of film. There are four new models for single and double system playback and studio quality recording.

Write for full details.

## W. A. PALMER FILMS, INC.

611 HOWARD STREET • SAN FRANCISCO, CA 94105 • PHONE (415) 986-5961

*San Francisco's complete 16 mm film service*

**new!**  
hi-torque ni-cad  
batteries  
made for  
ARRI  
cameras



Designed specifically for Arri cameras, these new batteries employ the new G. E. premium "Gold-Top" C/3 heavy duty, high temperature cells, and assure maximum power reliability over a wide range of environmental conditions. Uniquely compact and lightweight, both the HVQ and the 8/16Q batteries feature spot welded cells, all mounted onto a printed circuit plate with silver coated contacts for lowest resistance and anti-corrosion. The slim, high-impact lexan case in which the entire cell and contact block is enclosed, is virtually indestructible under normal use. Both recharge fully in 5 hours without being sensitive to over-charging. Both have "charge condition" indicators in their holders as well as charge indicator lights in the chargers. Operation is from 110-120 and 220-240 volts 50/60 Hz power lines.

#### Model HVQ—14.4V

For use with the Arri 35BL and 16BL cameras. Measures only 1½" x 5½" x 5", yet delivers about 20% more voltage than conventional batteries of up to four times larger. The resultant greatly increased motor torque is significant when filming in low temperatures or with large capacity magazines.

#### Model 8/16Q—8V/16V

This smallest, lightest power supply, for use with the Arri 35 IIC and 16/S-M cameras, delivers a choice of 8V or 16V at the flick of a switch. Same design and premium construction as the HVQ. Quick 5 hour recharge rate.

# ARRI

ARRIFLEX COMPANY OF AMERICA

P.O. Box 1102C, Woodside, N.Y. 11377 / 1011 Chestnut St., Burbank, Ca. 91506

Write for literature.

#### NOVEMBER 20:

What a week this has been for this Production Company! It started raining last Sunday night and rained hard until Wednesday. Nothing was shot on Monday or Tuesday. We were able to pick up a couple of shots in the river area on Wednesday. Thanksgiving Day was fairly clear and nice. Friday and Saturday we were again at the river where we shot the beginning of this big sequence. Here, the big problem facing a Cameraman is the high contrast within the heavy greens at the river banks. The sun hits the river very little. It's slow work getting the picture boats into place; then the equipment boats into position for their work. We are again using the modules in their smallest form, which is 10' x 20'. Right now it appears we will finish this picture just before Christmas. (A personal point: I have always wanted to own a boat, but right now I feel I have had enough of boats to last for some time.)

#### DECEMBER 1:

This was a good working week. Morale is higher for everyone. The river area is slow working, but our master plan of making it work is now paying off. The 750-amp generator is on one small module; then we have the camera, lights and grip module. We place them for each area. As I wrote before, the high contrast is my biggest problem. I can't believe how dark it can get under the heavy foliage. The density is almost like a complete overhead blanket. Where the sun does manage to come through, there is a very hot spot. Mostly I'm using two arcs with silks and double nets on them just for soft fill-light. It's easy to over-light in this kind of situation. We will be getting into the final action sequence this week and this should wrap the first unit.

#### DECEMBER 8:

Other than the now daily overcast and rain, the last few days on the first unit went well. We shot the big escape scenes where Scott's (or Hudson's) boat gets away from the Cuban Coast Guard. Scott sets a big fire in the mouth of the river to block the Cuban boat. Though I wish it could have been a much bigger fire for a more spectacular photographic image, we were restricted by the Hawaiian Dept. of Parks as to its size. However, they were very cooperative with us in the river area and we were able to do pretty much what we needed to do. The trees and brush along the river banks were so thick we had to use chain saws to cut paths for equipment and people to get through.



# WESTERN



## Cine

the right  
place for  
all your  
lab work!

**EASTMAN COLOR  
INTER-NEGATIVE  
and POSITIVE**  
16mm & 35mm

**PROCESSING  
ECN II, ECO, EF, CRI**  
16mm & 35mm

**FULL IMMERSION  
WET GATE  
PRINTING**

- Video Analyzing
- Sound Recording and Mixing
- Optical Printing
- Titling
- Super 8mm Reduction Printing
- Filmstrip

*We are a quality-oriented lab...  
Computerized printing...  
Contact our producers' service  
specialists...  
We do the job right!*



DENVER  
312 So. Pearl St. - Denver, Colo. 80209  
Cine Craft  
8764 Beverly Blvd. - Hollywood, Calif. 90048

### DECEMBER 15:

We wrapped the first unit today. This means we finished working with the principal actors. We now have about seven days of post-production work — the boats running through the reefs, the miniature boat hitting the reef and shots of the marlin in the water.

### DECEMBER 20:

One interesting marlin shot was a rubber marlin about 16' in length forced out of the water by an air mortar. For this scene the boat was in the background and the large marlin was jumping out of the ocean in the foreground. I used two cameras — one at 32 f.p.s. and one at 48 f.p.s. It turned out to be a very good shot. The miniature boat that hits the reef was half scale, so not too small. I used three cameras — one at 48 f.p.s. and two at 32 f.p.s. Long lenses were used so the boat would not appear small. This, too, worked very well.

On the last two days we did the helicopter shots. These shots will be used for title backgrounds.

On December 23 my Operator and I made the last helicopter shot in the morning and caught a noon flight for home — just in time for Christmas celebrations. There are still three days of underwater work to do — shots of the shark and the boy.

### JANUARY 16:

As I have started on a new picture that Peter Bart and Max Palevsky are doing through Columbia, Schaffner used another crew on these underwater shots. Except for special photographic effects which are being filmed by Frank Van derVeer, the picture is complete.

Now the Director has to cut the picture until he gets all he feels he can from the film we shot. It must be a very tough job for a Director to cut down so much footage in order to get the picture into proper showing time.

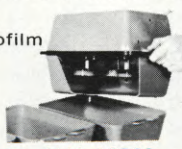
In a couple of months I hope to be called in to see and help time a print. It's always up-tight time for me to see a first cut. I sit there and relive every scene we shot. Always you seem to ask yourself if you couldn't have done something better or different. It's so easy to criticize your own work. However, I feel this is going to be a picture I will be proud to have worked on. ■

### AUTOMATIC DAYLIGHT PROCESSOR

- Processes up to 200 Ft.
- Super 8 to 105mm
- Movie—X-Ray • Microfilm
- Motor Driven—Portable
- Film Dryers Available
- Guaranteed

Write for Free Literature  
OUR 28th YEAR  
Micro Record Corp.

487-14 South Ave., Beacon, N.Y. 12508



# FOBA TRIPOD

*Selected for use in filming  
the 21st Olympiad at Montreal*



The Foba tripod is an all-metal professional motion picture tripod with a Pro Jr. flat-top plate which accepts Pro Jr., O'Conner C and 50, Miller F and Pro heads. Made in Switzerland by precision craftsmen, the Foba features unique tubular adjustable legs which allow the tripod to be used in standard or baby positions. Foba comes complete with triangle-type leg locks and elevating riser plate. Maximum height is 62"; with riser, 73". Minimum height, 18½". Weight, 16 lbs.

### FEATURES:

- Adjustable riser plate.
- Patented individual adjustable legs.
- Triangle-type leg locks.
- Individual or simultaneous adjusting of legs.
- Modularly constructed for easy repair or parts replacement.
- Weatherproof.
- Combination rubber and spiked tipped legs.
- Flexible leg adjustment for shooting of uneven terrain.

Price: **\$350.00**

Available Exclusively From:

**alan gordon enterprises inc.**

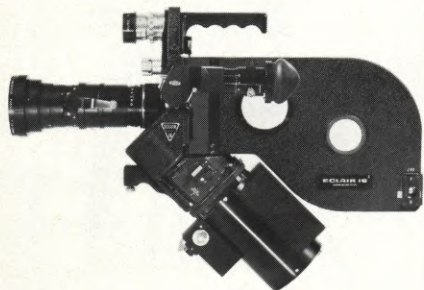
1430 N. Cahuenga Blvd. Hollywood, Calif. 90028

(213) 466-3561 / (213) 985-5500

TWX: 910-321-4526 • Cable: GORDENT



# EXPERT NPR service vice



Ten years experience  
with Eclair cameras:  
bodies, motors, lenses

## FACTORY TRAINED

Official Eclair service  
agent, U.S.A. & Mexico

# SABA CAMERA SERVICE

(213) 469-1551; (213) 469-2935

6572 Santa Monica Blvd.  
Hollywood, Calif. 90038

## PREVENTIVE MAINTENANCE Continued from Page 1267

repair shop as quickly as possible.

### STORING AND SHIPPING

If your equipment is not being used, approximately once every two weeks set up all your equipment and run through all of its phases. This will redistribute the lubrication and keep it from settling.

When the camera is not in use, keep all cavity caps, and plugs on. Keep the equipment in closed cases.

Special considerations should be given to your lenses when you ship or store them. Leave the iris completely closed; leave the zoom at telephoto or wide angle; and leave the focus ring just before infinity. This arrangement places the least amount of strain on the inside components while the lens is being stored or if it should get banged around while in its case. You should never ship your equipment with the lens attached, but keep lenses in separate cases and hand-carry them.

Remember, on location in windy, dusty or sandy areas a simple plastic bag used as a camera cover could save you hours of costly camera repair.

Good shooting! ■

## CINEMA WORKSHOP Continued from Page 1202

musical instruments most often involves the exact opposite technique. Instruments in the percussion or plucking family such as drums, piano, guitar, et cetera, often contain peaks that are 15 to 20 dB above their average signal as displayed by the VU meter. Keeping in mind that the VU meter is based on 8-10 dB headroom (for the human voice), it should be obvious that these musical instruments require an additional 5-10 dB of headroom (or peak room). Depending on the amount of peakiness, these instruments should therefore be recorded with a VU maximum of -5 to -10 dB. This will yield a total of 15 to 20 dB of headroom to accommodate those signal peaks to which the meter is unresponsive.

The use of the VU meter requires a knowledge of its principle as well as constant awareness of the nature of the recorded signal. Mastering the technique of the VU meter usually requires a significant amount of experience.

The peak meter or modulometer, in contrast, is far less mysterious and does not exhibit such a complex personality. We will take a close look at the peak type meter next and compare it to the VU meter in terms of practical recording. ■

## R-2 Reflex Auto- COLLIMATOR

Focus Testing Equipment is made by  
RICHTER CINE EQUIPMENT, ESSEX, N.Y. 12936  
for people who care about image quality.  
Cost? Less than one good lens or  
one out-of-focus scene.

Let the PRO'S tell you How to Buy a  
16mm Sound Projector.

### FREE

We will send you the article which appeared in  
FILMMAKERS NEWSLETTER on Buying a "Used Pro-  
jector."

HECHT—Box 443—Ellenville, N.Y. 12428

## IN BURBANK CALIFORNIA HERITAGE FILM LAB

For the highest quality  
Kodachrome • Ektachrome  
Internegatives • Positive  
Prints • Black & White •  
Same Day Service For Color & B/W  
Work Prints.

2215 West Oak St.  
Burbank, CA 91506 (213) 843-1334

## For Professional Equipment in PHILADELPHIA, it's O. H. HIRT, INC.

39 N. 11th St. - Phila, Pa 19107  
(215) 923-0650

# IN CANADA

Complete 16mm & 35mm color & b&w  
processing and printing. Eastman COL-  
OR Ektachrome processing. Magnetic  
sound striping for 16mm-8mm and  
Super 8mm. Vacuumate  
film treatment. 16mm  
Optical  
Transfers.

QUEBEC 1085 St. Alexander St., Montreal, Quebec  
FILM LABS Telephone (514) 861-5483

# consistent





HIGH  
PRECISION  
**sprockets**

FOR DRIVING  
PERFORATED  
FILMS • TAPES • CHARTS

?

*LaVezzi*

HAS THEM ALL!

- 8 MM Wafers, full size for tapes or films.
- SUPER 8 Double width Printer Sprocket-Feed Sprocket.
- 16 MM Single row. Double row. Wafers. 8 Tooth thru 20 Tooth.
- 35 MM Standard C'Scope, Regular Tooth. Positive Control. Low Inertia. Intermittent, Drive. 8 Tooth thru 64 Tooth. Aluminum, Steel, Stainless Steel, Plastic.
- 70 MM TYPE I and II
- 1/10" PITCH TAPE DRIVE Sprockets 1" wide. 10 Tooth thru 50 Tooth Tape Reader Sprockets Stainless Steel, Plastic.
- 1/4" PITCH CHART SPROCKETS Aluminum—Plastic 10-12-24 Tooth Assemblies.
- 3/8" PITCH CHART SPROCKETS Aluminum.
- 1/2" PITCH CHART SPROCKETS Aluminum, Assemblies.
- AND SPECIALS TO ORDER Tell us the problem and/or send us your Specs for quote. We make special sprockets for almost any type of perforated material.

*LaVezzi*

machine works, inc.

900 N. Larch Ave.,  
Elmhurst, Ill. 60126  
(312) 832-8990

**MULTI-SURFACE IMAGES**

Continued from Page 1261

arrangements of cubes, projector setups and camera moves became correspondingly complex.

"Because the projectors were running at their normal speed of twenty-four frames per second, we were afraid we might scratch camera original, so we had dupes made for projection. If we had been working a frame at a time, on a stand, we could have used original, and the quality of our images would have been better."

Despite Don's disclaimer, the quality of the small projected images in OPTIONS is good, and the device is effective. As the camera scans plastic shapes, glowing with internal light, ideas and philosophies unfold. At the climax of idea-development, the camera arrives at a picture, in motion, illustrating the concept. A second camera move reveals another moving illustration. Through a barely-perceptible dissolve, the picture becomes a "real" picture, printed from camera original, and the story development continues.

To match the colors of our miniature images with those printed from camera original, some filtering was necessary. Don used a color-temperature meter to discover that the light from his Bell and Howell projectors was too "warm" to properly expose our 7252 film.

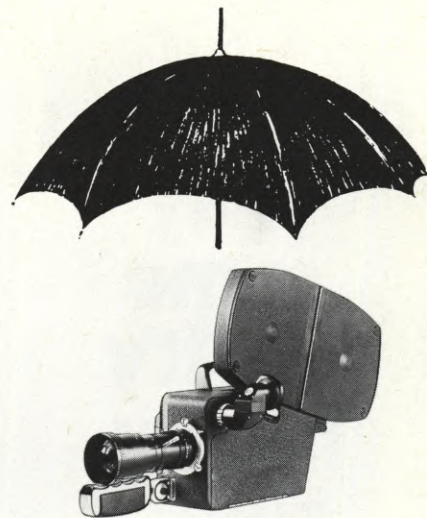
An 81B filter was indicated, and Don made tests using the filter on the camera lens and the projector lenses. For some unexplained reason, colors were more realistic with the filter on the camera — and that is the method that was used.

Titles were shot in the same setup, after being reduced to small cels that could be placed among the plastic shapes. Shallow depth of field was an advantage to Don, enabling him to reveal titles through changes in focus.

For the greatest dramatic effect, the cubes were lighted with a direct, focusable light source — a Kodak Carousel slide projector. Spill was avoided with flags and gobos, and reflection was eliminated by a black velvet curtain around the entire setup.

Editor Barbara Kaplan prepared the workprint on two separate rolls, so that side-by-side comparison of superimpositions could be made. She set the film for printing from five original picture rolls. In the re-recording, engineer Rick Coken blended twelve channels into a sophisticated track.

The result is an effective motion picture that helps the viewer to feel the importance of innovation and individualization in high school



all under one  
umbrella  
**MOTION PICTURE  
EQUIPMENT  
SPECIALISTS**

the **BRENNER CINE-SOUND** organization covers every aspect of Cinematography equipment. Under our umbrella we have a unique team of personnel and services, backed by many years of expertise related to Sales, Service, Rentals and Repairs.

■ Whether your requirements are: Cameras, Lenses, Motors, Magazines, Tripods, Power Supplies, Lighting, Editors, Meters, Projectors, Tape Recorders or Screens **BRENNER CINE-SOUND** has it in stock with product names such as:

Angenieux	Eclair	Neumann
Arriflex	Electro-Voice	O'Connor
Arrivox	Guillotine	Oxberry
Beaulieu	Magnasynch	Permacel
Beyer	Maier-Hancock	Revox
Bolex	Miller	Sennheiser
Canon	Minerva	Shure
Cinema Products	Moviola	Spectra
Colortran	Nagra	Sonorex
		Zeiss

For more information on Motion Picture Equipment, Sales, Service & Rentals, call or write

5215 Wisconsin Ave., N.W., Washington, D.C.  
20015 (202) 244-3800

**BRENNER  
CINE-SOUND**

Div. of Ritz Camera Centers

Please mail me additional information:

Service     Sales     Rentals

Name \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_

State \_\_\_\_\_ Zip \_\_\_\_\_



# Our characters play some pretty heavy roles.

Our faces have been in "Jaws", "The Sting", "Jackson County Jail", and other biggies. Need 16mm and 35mm title elements? We make 'em! End-credits, roll-ups, and color and b/w supers.



800 N. Cole Avenue  
Hollywood, California 90038  
Telephone: (213) 469-8171

## SMITH-VICTOR Model K33 QUARTZ STUDIO KIT A Studio in an Overnight Case



The K33 is a deluxe kit that consists of 3 600 watt 700 DYH 3200° K Quartz Lights, 3 SA28 8 ft. black aluminum stands, 3 701 barn doors and a 650 case that has room for lights, stands, extension cords, spare lamps and barn doors.

Available through Professional Photo Suppliers and CC Video Dealers.

Model K33 \$300.00 (1800 watts)  
Write for information on other Kits.

AT YOUR PROFESSIONAL DEALER  
**SMITH-VICTOR CORP.**  
Griffith, Indiana 46319

education; to demonstrate that education can be tailored to reach the student; proving that every boy and girl in high school can become an effective adult — able to exercise . . . Options. ■

## CREATING UNIQUE VISUAL EFFECTS FOR "OPTIONS"

By DON B. KLUGMAN

Writer/Director

When our group at The Creative Establishment conceived a film about Individually Guided Education, I saw an opportunity to make a picture with "simultaneity" — sounds occurring at the same time as other sounds, and superimposed pictures. The film was scripted with four columns to the page — two for visuals, one for dialog and another for several different styles of narration.

With such a detailed script, shooting became a matter of translating script to visuals — the usual hassle of casting, lugging, shooting — and the unusual problem of dealing with a script in which nearly every scene is an entirely new lighting and sound setup.

To justify the amount of film we consumed. I have to point out that, throughout most of the production, at least two strands of original are running at the same time. Sometimes there are five strands. And none of it was done by chance. We planned our work, and we worked our plan.

The hangup was budget. At the point where we needed special effects, the foundation that financed the picture refused to go any farther. I had to either work out a low-budget method for shooting effects or change the script. So I went to work.

The problem was clear: to find an inexpensive way of combining three-dimensional shapes and two-dimensional motion pictures in the same frame, and to have the capability of moving from one to the other.

The solution to the problem was limited by the equipment at hand — a crystal-sync camera and two sync-motor projectors. The synchronous feature gave me reasonable assurance that all three shutters would open and close at about the same times. Beyond that, I had no assurances.

To begin, my assistant, Jane Gottlieb, built an experimental setup of plastic blocks, which we sidelighted with a Kodak Carousel projector and an old Sylvania Sun-Gun with a long snoot. With a three-diopter closeup lens on the camera, I practiced zooming in and out on the blocks. It looked good.

Next, I set up a projector behind the

## MISSION FILM LAB

An All Service Film Lab

In

Color & Black & White  
Serving the Entire World.

For The Optimum in Quality

Mail to: Box 791  
Newhall Calif. (805) 259-8427

## KINGSWAY: CANADA'S POST-PRODUCTION EQUIPMENT SPECIALISTS.

Featuring  
STEENBECK • BAUER  
PRECISION • MURAY

For more information on all our fine equipment contact:

Kingsway Film Equipment Ltd.  
821 Kipling Avenue, Toronto, Ontario  
M8Z 5G8 Phone: 416-233-1103

PROFESSIONAL LAB SERVICES		
Sound transfers	Workprints	Film & supplies
Custom processing	Integritives	Movie equipment
Special Effects in Super-8	Blow-up to 16mm	Unusual movie supplies
Super-8 to 16mm cassette	Reduction Prints	Over-per-frame switches
Professional Super-8 titles	Release Prints	Super-8 Sound movie classics
Professional Sound Tracks!	Freeze Frames	Super-8 Sync-Sound Headquarters
Laminated Magnetic Striping		

Send for free brochure SUPER-8 STUDIOS  
220 PIERCE STREET — No. 7  
SAN FRANCISCO, CA. 94117  
Tel: [415] 863-4209

Covering FLORIDA  
like the SUNSHINE—  
COMPLETE RENTAL SERVICE

## PHOTOMART

CINE EQUIPMENT SUPPLIERS  
6327 S. ORANGE AVE., ORLANDO, FLA. 32809

Phone (305) 851-2780

# wide range





## WANTED Ambitious Film Makers

Amazing new report describes how one-man operation has grossed \$150,000 a year producing sponsored films.

**Free letter** with complete details.

D.H. Vowell, P.O. Box 4891  
North Hollywood, Ca. 91607

## SOUND TRACKS

Resolving Narration  
Music  
Sound Effects  
Editing — Mixing  
All 16mm & Multi-Media  
Production Services  
Arriflex & Nagra Rental

Bob Lindahl

## NORTHWESTERN, INC.

011 S. W. Hooker Street  
Portland, Oregon 97201 (503) 226-0170

## The PRETTIEST FILM FOR SALE

Why not cut your TV commercial around something incredibly beautiful — saving money and headaches in the process! From the aerial photographers of "Jonathan Livingston Seagull" comes the "Prettiest Pictures You'll Ever See!"

HANG GLIDING  
DUNE BUGGIES  
AIRPLANES  
INCREDIBLE AERIAL SCENICS  
and MORE Ring (714) 494-1055  
Box 205, So Laguna, CA 92677

SURFING  
SEAGULLS  
BALLOONS

MACGILLIVRAY-  
FREEMAN FILMS

## Editing Facilities Equipment Rental

Kems, Steenbecks &  
Moviolas

PREVIEW  
THEATRE  
INC.

1600 BROADWAY, NEW YORK, N.Y. 10019  
(212) 246-0865

## UHLER MOTION PICTURE FILM PRINTERS

35, 16, and 8mm. Contact continuous, and optical reduction and enlarging for color and B&W films. Please write for information and prices:

Uhler Cine Machine Cable: Uhlcima  
15762 Wyoming Ave., Detroit, Mich. 48238  
(313) 861-4663

blocks, threaded and focused it, and projected a tiny image onto a little panel of ground glass among the blocks. Running around to the front, I took a reading, balanced the light level between blocks and motion picture, and made a few shots.

It worked — *but* — the grain of the ground glass was objectionable, the color was off, and the vibrating projector kept shaking blocks and ground glass out of focus.

The color problem was solved with an 81B filter, and the vibration situation was eased by notching and taping the blocks. However the grainy look was impossible to eliminate in a two-inch picture, though Jane and I tried several kinds of glass, frosted acetate and paper.

Finally, with the glass removed, we projected an aerial image into the slot where the glass had been. Of course, this image was grain-free — but, to photograph it, I had to keep the camera pointed straight at the projector. I could zoom in or out, but panning or tilting meant the loss of the aerial image. This was OK for a few scenes in OPTIONS, but it wasn't the final answer.

Our next move was to front projection. We placed the projector out in front of the blocks, at a right angle to the setup, and inserted a first-surface mirror where we wanted to "turn" the image. For a screen, Jane cut a sticky Kum-Klean office label to the size of one block. Adjustment of the mirror threw a little picture onto the label — a picture that could be panned to, tilted to, zoomed to.

It worked. And, with the addition of a second projector and mirror, aimed from the other side, we had given ourselves the ability to re-photograph a motion picture — to zoom out, revealing that the motion picture is among colorful, indistinct shapes — to pan, tilt and change focus on artistic arrangements of those shapes — and, finally, to arrive at another motion picture.

Here was our special effect, created at a budget price. It would add an interesting touch to our film, but *only* a touch. Because I don't believe that any individual effect or trick can make a film.

The real questions in my mind were, "is our script valid?"; "did our live shooting capture the essential humanity of the people and the subject?"; "can our editing enhance the drama?"; "can re-recording and printing add to the clarity of the approach?";

If all of this works, then we may have a good film. Thoughts like that can make a man feel humble. ■

## little mike BIG EAR



Here's a really all-purpose microphone—just about as small as possible, 8mm by 18mm by 5mm (5/16 by 11/16 by 3/16 in.), but big in performance and versatility. Slick and smooth for minimum clothing noise. Wide frequency range without peakiness for use with music as well as speech. Specially developed cabling and connectors. Immediate delivery, too!

Model 14: 4 ft 6 in. cable, locking micro connector, \$110.;  
Model B-30: 12 ft cable, locking micro plug, and matching balance transformer for balanced/unbalanced convertibility, \$140.



1825 NE 149 Street Miami, Florida USA 33181

305/945-1111

Telex 51-9348

TWX 810/845-4242



IMAGE  
DEVICES  
INCORPORATED

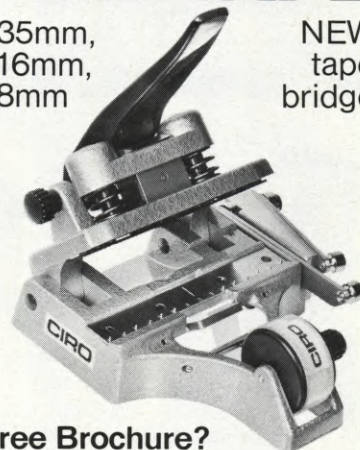
# CIRO

self-perforating  
frame-line tape

## SPLICERS AND TAPE

35mm,  
16mm,  
8mm

NEW  
tape  
bridge



Free Brochure?

6820 Romaine St., Hollywood  
Calif. 90038. (213) 466-3591

CIRO  
EQUIPMENT CORPORATION



**If we're  
good enough  
to process  
these films...**

**NASHVILLE  
TAXI DRIVER  
MISSOURI BREAKS  
STAY HUNGRY**

**we're  
good enough  
to process  
yours.**

**tvc**

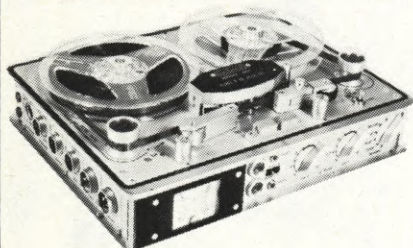
**ORIGINATORS OF THE REVOLUTIONARY  
CHEM-TONE PROCESS**

tvc laboratories, inc., 311 west 43rd st.  
new york 10036, (212) 397-8600

**RENT-LEASE  
PURCHASE**

**THE ALL NEW  
PROFESSIONAL SP-7**

**STELLAVOX  
SYNCHRONOUS 1/4" TAPE  
RECORDER**



**SOUND QUALITY UNSURPASSED  
BY ANY OTHER PORTABLE RECORDER**

*For a demonstration or  
additional information*

**CALL (212) 889-3300**

**LAUMIC CO. INC.**

306 EAST 39th ST., NEW YORK, N.Y. 10016  
SALES • SERVICE • RENTALS

**FILMING "OFF THE EDGE"  
IN NEW ZEALAND**  
Continued from Page 1256

just for the minicam, "which was fun because the flyers didn't have to worry about getting too close to the helicopter or flying in a special pattern for the ground crew."

In all, it took 25 separate flights over the two winters to get the material for the film — 35,000 feet in all. During the nine months they were on location, they wrenched a total of 50 clear filming days away from the weather.

**THE GSAP FLIES A KITE**

For point of view shots, they laced the GSAP camera with the 10mm Switar lens onto the kites. Geoff Cocks had fashioned a mount for the GSAP so that — again, racing the weather — all the flyer had to do was screw the camera into the mount Jeff had made, plug it in and he'd be ready to go. The Switar's definition was from a few inches to infinity.

One day they placed the GSAP camera on the control bar of Blair's glider. It was one of his first jumps from 10,000 feet. He had run the cable leading from the battery to the GSAP the wrong way and, as he sailed into the air, he instantly found that the cable prevented him from using his control bar — which is something like driving a car 90 miles an hour with a frozen steering column. He crashed back into the mountain and slid down a 45-degree slope, managing to stop a few feet from the cliff's edge. Cutting the cord free, Blair straightened the glider up and slid off the cliff out into the air high above the valley floor.

A combined feat of flying and filming was accomplished by Jeff Campbell. The GSAP camera carries a 50-foot load of film, which is about one minute, twenty seconds. As he flew the glider, Jeff counted out the 80 seconds (GSAPs have no footage counters). Then he'd reach into the camera, slip the cartridge out, put it in his pocket, take a fresh cartridge from another pocket, and push that into the camera — often while gliding close to icy pinnacles and cliffs.

What did they do in the village while they waited for the weather to break?

"Since we couldn't tell in advance that the area was going to be socked in for three weeks, we couldn't go to the beach or drive to the city!"

Once Mike went into Auckland to see what was holding up his dailies (known as "weeklies" since they arrived so infrequently). Of course the moment he left, the weather cleared for two days. "We read a lot — like *American*

**FilmLab  
SERVICE, INC.**  
FULL SERVICE 16mm. COLOR  
LABORATORY

- PROCESSING — ECO — EF — ECN II
- ADDITIVE COLOR PRINTING
- EKTACHROME SOUND PRINTS
- ADDITIVE LIQUID GATE PRINTING
- INTERNEGATIVE — CRI
- EASTMAN COLOR PRINT
- EDITING — SOUND SERVICES
- FILMSTOCK — SUPPLIES

SEND FOR COMPLETE INFORMATION  
ON SERVICES  
(216) 881-4510  
4117 Prospect Ave.  
Cleveland, Ohio 44103

**MUSIC MOODS  
FOR FILM**

This record is a comprehensive MOOD MUSIC LIBRARY, designed specifically to meet the needs of low budget feature films, independent film makers, film classes, and any kind of production where commercially licensed music is required.

Almost every basic film mood is covered in one comprehensive record and contains electronic music, multiple guitars, solo flutes, rock, jazz, etc. 18 separate theme moods are included.

Price of \$49.95 grants ownership of the record itself, and an unlimited license for the commercial use of the sounds contained on it.

**MELAINE PRODUCTIONS**  
114 WEST MT. PLEASANT AVE.  
LIVINGSTON, NEW JERSEY 07039

**SEAVISION PRODUCTIONS**  
ABOVE THE SEA UNDER THE SEA  
Complete Production  
&  
Post Production  
JOSEPH THOMPSON 714-297-0730  
CHUCK NICKLIN 714-272-1120  
P.O. BOX 82672 SAN DIEGO, CALIF. 92138

<b>BILL KING</b> Editorial Services	<b>Film</b> KEM 5-plate Universal Editing Console	<b>Video- tape</b> In-House Spectra-Vision Electronic Editor	18 West 45th St. Room 619 New York, N.Y. 10036 Tel. (212) 986-5707
---	---	---	---

**readily  
available**

**LEE  
FILTERS**



## BEHIND-THE-LENS FILTER HOLDERS

For Angenieux lenses on all Arriflex 16, Eclair NPR and CM3 cameras, and for the 25-250 Angenieux for 35 mm - in kits with gel cutter, tweezer, spare gel container and other convenience features.

Ask for brochures

**CUSTOM PHOTOGRAPHICS**

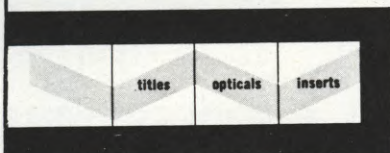
P. O. Box 25007, Portland, Oregon 97225 • 503-292-5569

# ROSCO

## color media

ROSCO, PORTCHESTER, N.Y. 10573

**WESTHEIMER** Company



Joseph Westheimer, A.S.C.

**TITLES, TRAILERS, INSERTS AND OPTICAL EFFECTS  
FOR MOTION PICTURES AND TELEVISION**

HO 6-8271

736 Seward St., Hollywood, Calif. 90038

When you say one lab processes your film "better" than another, you're really saying that somebody isn't doing their job, because in the lab business there is only one way to process, edit, conform, print, transfer, mix, or post flash—the right way. At CPT FILM LAB, your job is done the right way the first time which means we have the time to concentrate on service, on the personal touch. When you call or stop by CPT, you talk to the people who actually handle your job. We deal with people, their projects, and their problems.

Our staff is composed of lab professionals—but we've also spent our share of hours behind the cameras so we can speak your language.

If service and quality are what you're looking for in a 16mm lab, write or call for your copy of our new catalog/price list.

—phone—  
919/688-7265

**CPT FILM LAB**  
639 WELLS VILLAGE  
DURHAM, NC 27703

## BOLEX ACCESSORIES

- 24-Frame Sync. Camera motor—115V
- Var. Speed Battery Camera motor—24V
- 400-ft. Magazine w/400' counter in camera
- Intervaltimer—Range 1½ sec. to 36 min.
- Animation motor for new single-frame shaft

Write for Bolex Accessory Catalog  
**STEVENS ENGINEERING CO.**  
P.O. BOX 1605,  
NEWPORT BEACH, CA 92663

## BLOW-UP

**HIGH QUALITY  
35MM NEGATIVES  
FROM YOUR 16MM ORIGINALS**

Stock Shots Enlarged to Match-in with  
your 35mm Negative  
Complete Pictures Transferred to 35mm

Call—Adrian at (213) 463-3178

**CINESERVICE, INC.**

1459 North Seward Street  
Hollywood, California 90028

*Cinematographer.* Most of all we waited."

When they weren't trying to film hang-gilding sequences, they were looking for new skiing challenges to film. One day they learned of "the ice caves". The spring runoff cuts tunnels for miles through the ice, twisting and turning. They found an entrance to these caves, and immediately plunged into icy cold water; most of the time, they waded through it up to their knees. Dripping water fell like an uneven rain, and they were constantly wiping the drops off the lens.

"I had no idea what I was going to film," Mike told me, "and worse, I only had 400 feet of film in the camera. This is where the easy magazine change of an Eclair would have been useful. It was difficult to move around, and freezing cold. We were really afraid the whole thing would collapse — glaciers are constantly moving, you know. We weren't sure of our footing, either. Would our next step put us again on firm ground, or would we just step through a thin sheet of ice and fall down a crevasse? The light was very low, about f/1.5 — a blue light from the ice. We never knew what lay around the next bend, so I spent most of my time trying to judge how much film to use on a shot."

A week later that whole series of ice caves collapsed.

### CINEMATIC CLIFF-HANGER

Their equipment held up very well. Film stock never broke from the cold, and they had few problems with condensation. But at one point, when timing was crucial, the Rex 5 broke down and taught Mike a very valuable lesson.

They had been shooting for four days and were on their way back down to the village. The Alpine guide, Gavin Wills, was with them when the pilot dropped them off on the top of a 7,000-foot-high, three-mile-long ridge. The mountains suddenly end there, dropping off into the native bush. At one end of the glacier lies the rain forest, and just beyond it, the coastline of the Tasman Sea. When the sun sets at this particular spot, it reflects light off the water, and a golden, deep orange glow spills over sea, forest and mountains. Instead of being black, the shadows are a bright iridescent blue.

They had 30 minutes to shoot the sunset and meet their helicopter. "Once the sun sets, the pilot has no depth perception; he doesn't know if he's 50 feet off the ground or on the deck. Our weather looked threatening, and we didn't want to be stuck out there in the middle of nowhere. But I just

## CRAMER *Continuous* Automatic FILM PROCESSOR

THEY SPEAK FOR THEMSELVES —

"I would like to thank you for making a fine piece of machinery. Our MARK VII has been working great! We run an average of 200 feet of color film a day . . . and every inch of it has been perfect . . . and the price, about 1.53¢ per foot . . . it is nice to know that the "Cramer" has paid for itself in the first year of operation in the money it saved in chemicals alone."

Rick Dunn, KTVQ-2, Billings, Montana



**H.G. CRAMER CO.**

ROUTE 3, BOX 24A  
SARASOTA, FLORIDA 33580  
TELEPHONE: 813/355-4470



Portland,  
Oregon—City  
of Roses, Elephants,  
Mt. Hood and Frank Hood

and home of dependable

## Teknifilm

16mm film laboratory—  
Same day processing and  
work printing. B/W and color.  
ECO, EF, ECN-II.  
Sound transfers and mixing.  
High quality electro-prints.  
Inter-negs, CRIs.  
Color positive prints.

1923 N.W. KEARNEY  
PORTLAND, ORE. 97209  
503/224-3835

For careful, personal service  
check with Arlan Evensen  
or Frank Hood.

*Arlan E. Evensen*  
*Frank Hood*  
**T**



# A 16mm Custom Film Laboratory

Since 1955

Specialists In Color & B/W  
Color Corrected Answer Prints  
Internegatives  
Positive Release Prints.  
Develop  
Camera Original — Color & B/W

Work Prints — SAME DAY SERVICE  
From Coast to Coast

DEE D. STAFFORD LAB INC.  
2214 West Olive Ave.  
Burbank, CA (213) 849-5452

## Rain Covers

for most  
16mm and 35mm cameras  
*alan gordon enterprises inc.*

1430 N. CAHUENGA BLVD.  
HOLLYWOOD, CALIF. 90028  
Telephone: (213) 466-3561

## SOUND EFFECTS

LIBRARY

Richard Einfeld Productions  
1512 No. Las Palmas, Hollywood, CA 90028  
(213) 461-3731



PROFESSIONAL  
UNDERWATER  
PHOTOGRAPHY

(415) 841-0555

Al Giddings  
12812 Skyline Blvd. Oakland, CA 94619

COMPLETE LABORATORY  
SERVICES & SUPPLIES

**LEO DINER  
FILMS, INC.**

332-350 Golden Gate Ave.  
San Francisco, CA 94102  
(415) 775-3664

16MM / SUPER 8

couldn't afford to miss getting that sunset on film."

Since they'd been shooting hard for four days, the camera had been knocked about a lot. Mike now thinks it was the extreme cold that caused a wire inside the camera to break, because as the sunset approached, he couldn't get the Bolex to start.

"I ripped off my gloves and disengaged the film inside from the 400-foot magazine. I always carried a few spare 100-foot rolls of film, plus the handwind lever to the Rex 5. I quickly snapped on the handle and inserted a 100-foot roll of new film."

Fortunately, he had the Rex 5 on the Fleximount so he didn't have to waste any time getting a tripod set up. This also made it possible for him to start skiing with the Fleximount and the Bolex. In the 15 minutes of sunset remaining, and over a three-mile area, he set up ten different shots.

"We got down to the last two shots, when the handle to my compact zoom lens broke off. I took the last shots with my zoom stuck on 50mm. Looking at this sequence in the film you'd never believe the panic that was going on — to get it and get out!"

Mike went on: "From now on, whenever I go into any remote area to film, I will always carry a handwind camera, like the Rex 5, because at least then you can still get the shot — even when everything else is breaking down around you."

### POST-PRODUCTION

The film was edited in New Zealand. The fine cut was done in Hollywood, slanted for a more general theatre audience. CFI did the blow-up, and the dubbing was done at Todd-A-O.

"Looking back on it it's hard to believe what we went through to get this film made," Mike reflects. "Of course, since we were working on a low budget, it could have been easier if we'd been able to have a full-time helicopter with a Tyler mount ready to go whenever the weather cleared. But on the whole, all the gear worked out very well, and I must say those hang-glider sequences gave us the experience of a lifetime."

(ABOUT THE AUTHOR: MOLLIE GREGORY, a writer of feature, documentary and industrial films, is a recent "transplant" to the Hollywood motion picture writing scene. In addition to "OFF THE EDGE", her scripting credits include: "THE LIFE AND TIMES OF BUFFALO JONES" [soon to be released], "ESKIMO" [in production] and a film for Bank of America entitled "THE INTERVIEW — MANAGEMENT HIRING" [in production]. She teaches Film Distribution and Financing, Scriptwriting, and Film in Society at the San Francisco State University Film Department. She has consulted on the financing of numerous films.)

## 2 GREAT CINE BOOKS

By Joseph V. Mascelli, A.S.C.

THE FIVE C's OF CINEMATOGRAPHY

THE CLASSIC CINE TEXT

SIXTH BIG PRINTING ..... \$15 Postpaid

MASCELLI'S CINE WORKBOOK

Up-to-Date Text; Cine Tools, Tables

& Calculators in BOTH Feet & Metric

INCREDIBLE VALUE ..... \$20 Postpaid

Calif. add 6% Tax. Foreign add \$1 per book.

10-DAY TRIAL OFFER! FREE BROCHURES!

CINE/GRAFIC PUBLICATIONS

P.O. BOX 430 HOLLYWOOD, CALIF. 90028



SHOOTING

Contact Jim Grattan for top equipped crews. Single and double system.

**IN CANADA?**

4606 St. Catherine Street, West  
Montreal H3Z 1S3, P. Q. Canada  
(514) 932-1463

## CALL A PROFESSIONAL Cine-Craft, Inc.

A full service laboratory for  
16mm, Super 8, Regular 8  
Any quantity Best prices

8764 Beverly Blvd., Hollywood, Calif. 90048  
(213) 652-7357

Write for free brochure



FILMING FACILITIES

**ASIAN FILMS**

72, JANPATH, N. DELHI-1

Cable: Moviphoto,

New Delhi (India);

Telephone: 44040

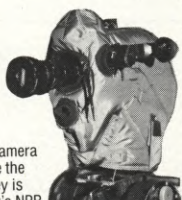
### MOTION PICTURE CAMERA BARNEY

We manufacture:

- a) Heat insulation Barneys — To prevent camera freeze ups during cold weather. As well, this Barney insulates against camera noise.
- b) Rain resistant Barneys — To resist water leakage while employing the camera in the rain.

We make models to fit most cameras: eg.: NPR, ACL, CP-16, ARRI BL, and others.

For more information please write or call.



The camera inside the Barney is Eclair's NPR

**L. MARKEL** 4180 Courtraï, #267, Montreal, Canada. Tel. (514) 845-9036

# durable





**FILM VS. VIDEO MYTHS**  
Continued from Page 1264

something I call *Sociovideo*. Here we are not dealing with impressive 2-inch technology or streamlined Mini- or Micro-Cams for 6-digit amounts. We're dealing with the most primitive 1/2-in. or 1/4-in. technology, cheap and (almost) fool-proof portapaks in the hands of non-pros: social workers, teachers, video freaks, students and kids.

With these simple tools, handicapped children are given the possibility to help each other discover the world around them. Video workshops (with an ambition to induce a 'we' feeling) are established in boring suburbs with grave social problems; programmes are made to increase our understanding of the problems of old people or immigrants on a *local* basis and school children are taught not only how to consume information but also how to become information producers. In this area, film cannot compete at all (not even Super-8) because of its slowness, complexity and high costs. The b&w 1/2-in. video can act fast, make direct comments (because of its direct playback possibility) and 'mirror' local problems with great speed and at low cost.

The professional broadcasters fail to notice, or at least fail to take an active interest in what happens outside their own world. In a few years' time, it's perfectly possible that the most interesting television — but not the 'best' in technical terms — will be made outside the Broadcasting Corporation. The dinosaur media in general and broadcast TV in particular are being bypassed by smart-looking Hermes creatures in grey flannel suits and with their attaché cases stuffed with videograms, or by fast-moving guerilla soldiers who have traded their rifles for a Sony Portapak. We are gradually moving away from the comfortable era of mass media into the chaotic era of minority media.

I want to bring non-professional and non-broadcast video in partly because in a refreshing way it ignores technical matters. It's also interesting in this context because it represents an area where a phony competition between film and tape will never occur.

Sociovideo has put itself to use in a living social situation and avoided the quicksands of bureaucracy and technocracy. It has rejected the temptations of pseudo-problems and joined the war against real, human, social problems.

May we pros do likewise, without leaving our precious know-how behind and without 'blowing our cool'. We



**SYLVANIA  
SUN  
GUN®**

Portable Pro Movie Light  
for All Film - Tape - ENG

One-hour full recharge · Fingertip zoom, on-off · Camera-mounted or hand-held · Up to 50 minutes shooting time · 150/250 w. tungsten halogen · 15,000 c.p.w. spot · 3 1/2 lbs. in use · Models from (list) \$157 50

Nationwide service for over 25 years.  
Same-day shipment anywhere in US.

Rush delivery in Manhattan.

(212) JUDSON 6-1620

**BARBIZON ELECTRIC**

426 W. 55, NYC 10019

IN  
SAN FRANCISCO

**Adolph  
Gasser**

SALES  
SERVICE \* RENTALS

ARRIFLEX \* COLORTRAN  
CINEMA PRODUCTS  
CINEMA BEAULIEU  
ECLAIR \* O'CONNOR  
MILLER TRIPODS  
LOWEL \* NAGRA \* BOLEX  
MAGNASYNC/MOVIOLA

GRIP TRUCK  
MOS STAGE  
CUSTOM CABLE SYSTEM

Write for Details

**Adolph  
Gasser**

181 SECOND STREET  
SAN FRANCISCO, CALIF. 94105  
(415) 495-3852

**FOR SALE**

**1 MITCHELL SPR/BNC PELLICLE-REFLEX 35mm STUDIO CAMERA**  
IDEAL FOR REMOTE VIDEO MONITORING

This one-time offering of a Mitchell SPR/BNC Camera includes six Super Baltar lenses in BNC mounts: namely, 20, 25, 35, 50, 75 and 100mm. It also includes four 1000-ft magazines; one magazine housing with case; one standard motor housing; one each 220-V and 110-V synchronous motors; one CP CRYSTAL MOTOR, with housing, cable, battery, and charger; one each wide-angle and standard matte boxes; one captive viewfinder; one spare pellicle; one lens case; one camera case; one accessory case; two motor cases; and two magazine cases (not including zoom lens, illustrated).

The whole package, which is immediately available, is being offered for only \$17,500  
WRITE, TELEPHONE, TELEX OR TWX —

**IMAGE DEVICES**  
INCORPORATED

1825 NE 149 Street  
P.O. Box 610606  
Miami, FL USA  
33181

Phone 305/945-1111  
TWX 810/845-4242  
Telex 51-9348



## SOUND BARNEYS

for most  
16mm and 35mm cameras

alan gordon enterprises inc.

1430 N. CAHUENGA BLVD.  
HOLLYWOOD, CALIF. 90028  
Telephone: (213) 466-3561

## CANADA'S LARGEST LAB AND SOUND FULL SERVICE ORGANIZATION



MONTREAL  
2000 Northcliffe Ave.  
Montreal, Que. H4A 3K5  
Tel. (514) 484-1186

TORONTO  
9 Brockhouse Road  
Toronto, Ont. M8W 2W8  
Tel. (416) 259-7811

\* A DIVISION OF ASTRAL BELLEVUE PATHE LTD./LTEE

## WE BUY Film Stock

Will Consider All 16/35mm Types  
Sealed, Opened and Ends

**TOP CASH**  
PLUS 50% OF SHIPPING

**RAFIQUE** (212) 473-5851  
814 BROADWAY, NEW YORK, N.Y. 10003

## The birds & the bees.

### WILDLIFE STOCK FOOTAGE

Over 300,000 feet of great close-ups & slow-motion action scenes from Africa - North America at far less cost than sending a cameraman afield. Call or write:

**Borden Productions, Inc.**  
Concord, Massachusetts 01742  
617/369-5030

## made for the bright lights

Lee Filters - known and acknowledged the world over as the finest high-quality range of cinematographic and theatrical lighting filters. Long lasting, consistent in 46 colors, always readily available, Lee offers a versatile, wide range plus the technical back-up to match. Lee Filters - made for the bright lights.

Contact

M. Sheppard, Belden Communications Inc.  
25 West 45th Street, New York, N.Y. 10036  
(212) 730-0172  
Bud McKinny, Preferred Distributing Co.,  
1266 North Western Avenue, Los Angeles, California 90029.  
Tel: (213) 461-4201

Sample books on request

# LEE FILTERS

pros, at least in this part of the world, overemphasise the importance of technical problems to a point where we are in danger of losing our judgment. Technology seems to have an intoxicating or addictive effect. It can partly be explained by the fact that we work in technologically demanding media — film and television. I call them Techno Arts — a useful word if you want to separate them from non-technological arts like painting, literature, drama and classical music. (In the Techno Arts, Flash Gordon novelties like laser art, video art and computer art can be included.) It is characteristic of Techno Art that you can't do it alone. The creative process doesn't only involve complex technology but also teams of from two to perhaps 200 people.

No wonder we have a few communication problems! In the construction business the architect and the contractor hardly ever meet the plumber or the carpenter. They live separate lives. In film and television they rub shoulders every day. If that were the case in the construction industry, the number of ugly and unsafe buildings would rapidly decrease. But there would be a lot more yelling on building sites.

### Time to forget technique

Finally let me say this: Now we have been exposing, developing, budgeting, timing/grading, mixing, recording and editing films and TV programmes so damned long that the technique of it must have settled itself in our spinal cord! We ought to be able to 'forget' it, let it withdraw from the limelight and become autonomous — but therefore not less important — and concentrate our collective energies and attention on what happens in front of the lens, on reality, on artistic visions, on LIFE, for God's sake! Come on, let's leave the safe, cosy and stale world of pseudo-problems, and get a crack at some real ones. ■

### VIDEO NEWS FILM

VNF processing  
7239-7240  
normal & force  
developing to  
ASA 1000  
FLASHING

SEND FOR NEW PRICE LIST

**N L** (213) 462-6814

**NEWSFILM LABORATORY, INC.**  
516 No. Larchmont Blvd.  
Los Angeles, California 90004



Offering a full  
range of quality  
optical effects in  
16mm and Super 8

**Optical Zooms  
Freeze Frames  
Special Effects  
Frame Line Corrections  
Blow-Ups and Reductions  
18 and 24 Frame Conversions**

1308 Cahuenga Boulevard  
Hollywood, California 90028  
telephone 213 • 469-8387

## FOR THE FINEST REFLEX BNC SEE CSC

### EDITING CONSOLES

2picture, 3sound

Twenty-Fourth Frame  
p.o. box 538, Rockburg, Va. 24060 (703) 544-7156

**D R** HOLLYWOOD'S OLDEST  
FILM SCHOOL  
NOW ACCEPTING ENROLLMENTS  
FOR OUR NEXT

### MOTION PICTURE COURSE

CAMERAS • SOUND RECORDING  
LIGHTING • EDITING • EFFECTS  
COMPOSITION • SCRIPTING • ETC.

Two Week Courses— Evening Classes

**DANNY ROUZER  
STUDIO**

7022 Melrose Avenue, Hollywood, California 90038  
Request Brochure HC (213) 936-2494

ARRIFLEX  
NAGRA



**QUARTZCOLOR IANIRO  
MULTI-TRACK MAGNETICS INC.  
BRAUN ELECTRIC CANADA LTD.**  
3269 American Dr., Mississauga, Ontario, Canada  
325 Boul. Montpelier, Ville St. Laurent, Québec  
67 E. 5th Ave., Vancouver, B.C.



# BUY — SELL — SWAP HERE

## STUDIO PRODUCTION EQUIP.

BOLEX H 16EL, Angenieux 12-120, 400' mag. w/TQ motor, batteries, Century 385mm lens, fluid-head tripod, \$4,800. (307) 347-4749. THE NATURAL IMAGE, 1319 Russell Ave., Worldand WY 82401.

BOLEX H 16 REFLEX, Vario Switar EE 2.5, 18-86mm, Rexofader, 1.9-10mm and 1.4-25mm Cinors, custom right-angle "sneak" lens, fitted Tourister case, unimotor and battery case, matte box, \$850. Bolex S-221 magnetic-optical projector, \$850. (212) 866-4837.

NEW Eclair ACL 400' English mags., \$1,500 each. Mr. Lasn (604) 733-2854.

CP/16 R/A Reflex, brand new, with motorized 10-150 Angenieux zoom w/servo control, built-in amplifier, 2 mags, 3 batteries, 2 chargers, magnetic head, Beyer mike, windscreens, AC adapter, filter holders, shoulder pod, CPT-24 fluid head tripod, "Catkit" and "Aerokit" light kits, Sturdylight newsprint. Equipment never used. \$15,000 list. \$11,000 for package. DAVID MARLIN, 7 Minola, Lexington, MA 02173 (617) 861-1346.

ARRIFLEX 35mm outfit \$750. Auricon Pro-200 outfit, \$775. Craig 4x6" viewer \$50. (216) 929-3712.

**HATCHMARK SYNCTAPE — EDIT YOUR SOUND-TRACKS ON YOUR QUARTER-INCH TAPE RECORDERS FOR TRANSFER OR PROJECTION. HATCHMARK, INC. Box 91, MORRISON, CO 80465.**

ARRI 16M mint #M844 Box 16-25-50-Varigon Schneiders 2-400, Battery Base, 8VDC, shade, scene slate, Halliburton best offer. Moy Edge number machine & supplies excellent \$1500. Auricon Super Pro's. Send for list more. FILM ASSOCIATES, INC., 4600 S. Dixie, Dayton, OH 45439.

ECLAIR ACL, crystal motor, 2-200' magazines. \$4500. LDE, INC. (213) 462-1206.

FOR SALE. Used Steenbecks. Call (301) 299-7259. KLM ASSOCIATES, INC.

CRYSTAL SYNC. Beware imitations! Ours: Best accuracy, stability, battery longevity, and price (from \$99.44). International acceptance. TCS, 3227-49SW, Seattle 98116.

ARRIFLEX 16BL with 12-120 Angenieux, universal motor, 2-400 magazines, mattebox, 2 Cine 60 batteries, variable speed control, regular and offset finder, 2 sync cables, deluxe case, accessories. \$8,000. Nagra IV L with limiter auto level control, 2 QPSE pre amps, internal speed indicator, self-resolver, time sync generator, case, accessories, \$2,300. Moviola M-77A, 16mm 6-plate flatbed console editor with spare cords, \$6,500. CINEMA GRAPHICS INC., Rockefeller Bldg., Cleveland, OH 44113.

ANGENIEUX 25-250 lens with 2X extender. Newly cleaned, calibrated. Excellent, \$2800. SHEPARD ABBOTT, 120 West 28th St., NYC 10001. (212) 989-6257.

ECLAIR NPR with 2-400' magazines, crystal motor, \$5,950. CINE VIDEO (213) 461-2966.

COMPLETE production package. Arri-BL, 12-120, single system sound, Arri-SB, 24mm, 8mm Zeiss, 90mm Makto Kilar, filters, tripod, cases, power belts, mags., etc., Siemens projector, bench editing equipment, 10,000 watts ColorTran lights, stands, booms, sets. Light use. Condition guaranteed, \$15,000. Package only. ARCO INC., Granite Hill Road, Hallowell, ME (207) 623-4533.

MITCHELL BNC, complete with seven lenses, 3 magazines, 2 sync motors, cases and accessories \$8000. TELEFILM PRODUCTIONS (213) 461-2969.

MOVIOLA 16mm M-77 6-plate flatbed editor-mint; Bolex 16mm EBM w/Angenieux 12-120, 3 prime Switars, crystal, 400ft. mags, tripod, battery/charger, Barney, etc. Assorted 16mm editing equipment: 4-gang synchronizer w/sound head, Guillotine splicers, hot splicers, Moviscope viewer. Also quartz lights and stands; assorted audio equipment (Teac 1/2 track stereo recorders, Sony mics, mixers, Uher 4400L). Asking \$5,500 for Moviola and \$1500 on Bolex EBM. Make offers on rest. Write or call: CAL BRADY, 588 Como Park Blvd, Cheektowaga, NY 14227, (716) 881-4858.

## STUDIO PRODUCTION EQUIP.

BOLEX Rex 5 \$750. MST & pack, \$400. POE 100, \$845. 400' ill. trunk \$195. ESM, grip & battery, \$575. EBM sync gen. \$75. 50mm Switar F1.4 \$150. H-16M5, unimotor, regulator, magazine, torque, trunk, \$950. 18-86 F3.3 zoom, \$525. All Bolex equipment mint. New Pan Cinor 12-120 "C" \$480. Angenieux 17-68, \$300. 12-120 w finder "C" mint, \$1,475. 10mm, 25, 50, 75, 1/2 price. ARRIFLEX Mount 17-70 Angenieux F2.2, \$325. Shoulder pod \$75. Doiflex kit, \$75. Frezz 100 DX \$400. Brookheads fluid head, \$175. Toyo head, \$110. 16mm 6-gang block with sync motor \$225. Akai 1/4" video tape kit, \$735. "S" to "C" Adaptors \$30. "S" mount lens 15mm to 102mm, \$65. K-100 single lens camera (new) \$450. 63mm to 152mm finders, \$25. 100' Plus-X DP (Fresh) \$5.00. (Close Out) Auricon Cine Voice 1 & 2, converted flat & piggy back, opt and mag. 1200' capability-torque motor, TV shutter, heads & amps. (Phone or write your needs.) THOMCO, 2846 NW 59th, OK City, OK 73112 (405) 848-4868.

MITCHELL NC camera 35mm. Precision overhauled (also Eyemo). (213) 829-2132, 985-1297.

VEGA 55/57 "Pro" wireless microphone system, with Sony ECM-50, case, \$850. Arriflex "MB" package, new, \$11,000. Excellent condition, \$6,400. B&H Eyemo, 5 lenses, motor, 2-400 ft. magazines, rackover, cases, \$445. CINEMA SALES, INC., 338 So. Pearl St., Denver, CO 80209 (303) 777-7699.

ARRI 16BL, 12-120 Angenieux lens, crystal-sync motor, built-in Apex 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 \$10,500. Call evenings (212) UN1-7030.

NAGRA III, excellent condition, leather carrying case. JEAN VALLEE (212) 243-9157.

LIKE NEW 1200' blimp and (2) 1200' magazines for Arriflex BL (213) 654-6306.

NEW BOLEX EQUIPMENT: Rex-5 body, \$849.50. SB body, \$495. EBM w/grip, ni-cad, charger and 16-100mm f1.9 POE-4, \$1,695. Multifocal viewfinder, \$29.50. Vario Switar 16-100mm f1.9 POE-4 (bay. mt.), \$850. Vario Switar 17 85mm f3.5 (bay. mt.), \$365. Angenieux 12-120mm f2.2 Auto (Rex mt.), \$1,795. (Available with Arri mount-add \$200). Pan Cinor 12-120mm f3.3, \$495. Additional Switar 25mm f1.4 (Rex mt.), \$175. Bolex aluminum case #453, \$189.50. HELIX, 325 W. Huron, Chicago IL 60610 (312) 944-4400.

ECLAIR NPR, 12-120 Angenieux, 2 mags, cradle, sync motor, wild motor, 2 batteries, mint condition, \$8,500. Maurer 16mm optical recorder. Custom WRE amplifier, 1200', 400' mags. Excellent condition. \$8,000. MAX LASKY, (513) 271-5833.

DYNALENS S-038 with universal mount and Cine-60 power belt, \$3400. Angenieux 12-240 in Cinema Products mount (still under warranty) \$4,600. contact FRANK HUTTINGER, C/O AFI, 501 Doheny Rd., Beverly Hills, CA

## SUPPLIES

Black leader, 16mm fresh stock processed to 4.0+, guaranteed. \$.024/ft min. order 2000 ft. complete lab services and supplies, 16mm & Super-8, LEO DINER FILMS INC., 350 Golden Gate Ave., San Francisco, 94102 (415) 775-3664.

SAVE YOUR FILMS! Do it yourself and save \$\$. Movie film cleaner and protector. Incredible value — 1 pt. \$10. ppd. Bell and Howell 16mm kit and instruction to make EMM 50hr lamp last 250 hrs. \$20. ppd. Jack LOMBARDO THEATRE SUPPLY (NO C.O.D.) 6520 Selma Ave., Hollywood, CA 90028.

CINE TABS: for cataloging and identification of film trims on cores or in film bins. Send \$17.50 for pre-paid package of 750 cine tabs. LAUMIC CO., INC., 306 East 39th St., NY 10016 or call (212) 889-3300.

## SITUATIONS WANTED

EXPERIENCED assistant film editor seeking position. Salary secondary. Will relocate anywhere. GLENN ROBERTSON, 7124 Lupton, Dallas TX 75225. (214) 691-2737.

## WANTED

RAW STOCK FILM NEEDED. Highest cash paid for 16 or 35mm color negative or reversal film including any EF (7240) mag. stripe. FILMEX (film-brokers) (416) 964-7415 collect.

WANTED: Bolex, Bell & Howell 16mm magazines, Canon Scoopic, K-100 turret, 17-85 F2 Pan Cinor with finder. THOMCO, 2846 NW 59th, OK City, OK 73112 (405) 848-4868.

MAURER 05 or 150 Box or complete. FILM ASSOCIATES, INC., 4600 S. Dixie, Dayton, OH 45439.

RECORDER-DUBBERS, prefer combination 35/16, mixing console, wireless mike Tx/Rx. Send details to SOUNDTRACK AUSTRALIA, 137 Strangways Terrace, North Adelaide, South Australia. 5006.

OPTICAL effects & lab printers, accessories, film movements, cameras 16/35mm, analyzers, animation equipment. Purchase or consignment. PIONEER MARKETING CORPORATION, 1021 N. Lake St., Burbank, CA 91502. (213) 843-0530.

Late serial number Arri "M" B-mt. camera. Must be in top condition. Submit price for immediate response to Jim Martin, A.G.E. INC., 1430 Cahuenga Blvd., Hollywood, CA 90028. Telephone (213) 466-3561.

FILM STOCK, 16 and 35mm. Will consider all types. Sealed, opened & ends. RAFIQUE, 814 Broadway, New York, NY 10003, (212) 473-5851 Collect.

WANTED TO BUY: Neumade 16mm film cleaning machine. Must be in good shape. BRUCE WEBSTER, 426 NW 20th, Oklahoma City, OK 73103 (405) 524-6251.

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.

ANTIQUÉ Movie Cameras, lenses, projectors, accessories by private collector. Send photo or description and price. NIXON, 7755 Torreyson Dr., Los Angeles, CA 90069.

## SITUATIONS AVAILABLE

SALE oriented NY concern featuring lighting equipment and accessories seeks individual with sales potential to participate in future growth... Send resume to #1809, AMERICAN CINEMATOG-RAPHER.

PROFESSIONAL CAMERA REPAIR TECHNICIANS. Victor Duncan, Inc. has openings in Chicago and Detroit for professional camera repair technicians. Interested applicants should have a practical background in mechanics and optics. VDI offers a complete employee benefit package, and excellent working conditions. Salary commensurate with experience. Call Bob Coleman Collect in Chicago, (312) 321-9406 or Bob Burrell Collect in Detroit, (313) 371-4920.

## MISCELLANEOUS

ANIMATION motion picture course, includes light table, w/lamp, calibrated pan pegs, punched animation paper, field guide, exposure sheets and lessons. Complete — \$106.50 plus shipping. Lessons only \$16.50 plus shipping \$1.25. Catalog of details and supplies: \$1.00-refundable w/order. HEATH PRODS., INC., 1627 Scott, West Islip, NY 11795.

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.

FILM SYNDICATION for independent producers. If you have a suitable production we'll turn it into money. For details, write: WORLDWIDE SYNDICATION, 395 Main St., Metuchen, NJ 08840.

RATES: Ads set in lightface type 50c per word. Minimum ad, \$5.00. Text set in lightface capital letters (except 1st word and advertiser's name) 60c per word. Modified display format (text set in boldface type, capitals or upper and lower case) \$5.00 per line. Send copy with remittance to covpayment to Editorial Office, American Cinematographer, P. O. Box 2230, Hollywood California 90028. Forms close 1st of month preceding date of issue.



**SERVICES AVAILABLE**

ASSISTANT cameraman from Munich living in New York City call DIERK PIFFKO (212) 752-3756. Service (212) 757-6300.

CALL us for your "ODDBALL" service work. Gordon Yoder, Inc. (214) 357-3045.

SHOOTING IN CANADA? Complete 16mm production. 16/35 editing. Cameras, sound & lighting crews. Commercial, documentary and feature. CREATIVE ASSOCIATES, 133-10th Ave., SE, Calgary, ALB. (403) 264-6242.

B&H Filmos slotted w/2 holders \$52.50. 3-day service. GORDON YODER, INC., 2911 Ladybird Lane, Dallas, TX 75220.

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.

STEENBECK OVERHAULS. 4-plate \$400. 6-plate \$500. 8-plate \$600. (plus parts). RAYFIN (212) 541-6464.

In-house repairs of Bolex, Canon, Auricon, Bell & Howell, SS Ills, CP-16 and table viewers. GORDON YODER, INC., 2911 Ladybird Lane, Dallas, TX 75220.

**PROFESSIONAL EQUIPMENT**

Arriflex, CP, Angenieux, Nagra, Sennheiser, Sony, etc. Sales & Service of all **NEW AND USED** Motion Picture & Video Tape Equipment **AT VERY LOW PRICES.** We buy used equipment & accept trades.

Write or call  
**ADVANCE CAMERA SERVICE**

P.O. Box 162  
River Edge, N.J. 07661  
Phone (201) 261-2230

**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.

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

1976 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.

**PROTECT YOUR MOVIE FILMS**

**JACK'S NU-LIFE FILM CLEANER & PROTECTOR**

**NO HARMFUL VAPORS • NO CHEMICAL ODORS**  
Professional laboratories, private collectors, rental libraries, film distributors and those who can't afford to take chances with their valuable films all use THE WORLD'S FINEST FILM CLEANER AND PROTECTOR ever formulated. One application will restore pliability, remove the grime and residue that tends to scratch film and wear projector parts. A little goes a long way, used sparingly a 16 oz. can should last the average film buff a FULL YEAR! 16 OUNCE CAN, \$10.00 — GALLON, \$38.00 PPD.

**PROJECTOR BELTS** FABRIC, COIL, PLASTIC FOR ALL MAKES & MODELS. JUST SEND US YOUR OLD BELT OR MAKE & MODEL NUMBERS AND WE WILL SHIP C.O.D. AT WHOLESALE PRICES.  
**16MM EASY-TO-READ PROJECTION CHART ONLY \$2.50** .. SHOWS LENS SIZES AND "F" STOPS, PICTURE SIZE CHART, LENS PROJECTION CHART. INDISPENSABLE FOR SETTING UP SCREEN AND EQUIPMENT AT DIFFERENT LOCATIONS.

**8 & 16MM PROJECTOR OIL ONLY \$1.98** PROTECT YOUR INVESTMENT. THIS OIL IS DESIGNED TO STAND UP UNDER THE HIGH TEMPERATURES OF PROJECTION TO GIVE LONG LIFE AND QUIET RUNNING TO YOUR MACHINE.

**SAVE 100's OF DOLLARS ON PROJECTION LAMPS**

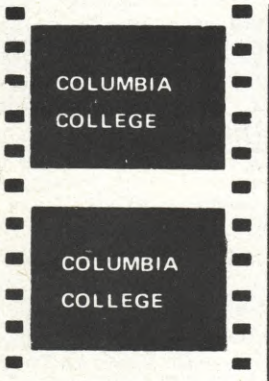
HOW WOULD YOU LIKE TO GET UP TO 400 HOURS FROM YOUR 8 OR 16MM PROJECTION LAMPS?

**YOU CAN WITH "LAMP SAVER"!**

By using this electronic kit you can extend the life of your lamps way beyond their normal life expectancy and save time and money on replacements. Never wears out, easy to install. State projector, model and lamp when ordering. Satisfaction guaranteed. Price Postpaid \$20.00

**SEND CHECK OR MONEY ORDER AND ANY ITEM WILL BE SENT POSTPAID WITH FULL GUARANTEE.**

**JACK LOMBARDO THEATRE SUPPLY**  
6520-B Selma Ave.  
Hollywood Calif. 90028



Approved for Veterans

A study of the Motion Picture and Television Arts and Sciences within a degree program, taught by a distinguished faculty.

Now Registering. Write for a descriptive brochure.

**COLUMBIA COLLEGE**

925 No. La Brea Ave.  
Hollywood, Calif. 90038  
851-0550

**American Cinematographer**



Please enter my subscription for 1 year—

\$9.00 U.S.      \$10.00 Foreign

and send me a free copy of the Four-In-One Reprint.

I am enclosing my remittance.

(offer available only with remittance)

Name \_\_\_\_\_  
Address \_\_\_\_\_  
City \_\_\_\_\_ State \_\_\_\_\_  
Zip \_\_\_\_\_

American Cinematographer  
P.O. Box 2230  
Hollywood, CA 90028

**American Cinematographer REPRINT**

June, 1968  
**FILMING "2001—A SPACE ODYSSEY"**

December, 1969  
**SUPER-8—THE STATE OF THE ART**

June, 1970  
**SUPER-16**

October, 1972  
**VIDEOTAPE & FILM**

*ALL IN ONE PLACE*



\$5.00

(Dealer Discounts—Inquire)

**AMERICAN CINEMATOGRAPHER**  
P.O. Box 2230, Hollywood, Calif. 90028

Please send me \_\_\_\_\_ copies of the FOUR-IN-ONE reprint @ \$5.00 ea., postpaid.

NAME \_\_\_\_\_  
ADDRESS \_\_\_\_\_  
CITY \_\_\_\_\_  
STATE \_\_\_\_\_ ZIP \_\_\_\_\_

California residents please remit 6% Sales Tax. (30¢ per copy). Foreign buyers please pay by International Money Order or U.S. Funds.



# FREZZI- FLEX™ MODEL FR-16

## NEW

Model FR-16 Frezzi-Flex™ is available with or without Frezzolini side-mounted amplifiers, Angénieux lenses and a complete choice of camera accessories.

- Compact ●
- Streamlined ●
- Lightweight/smaller & reliably rugged, our new FR-16 Frezzi-Flex™ is the ideal reflex counterpart of world-famed LW-16 sound-on-film 16mm motion picture (ciné) camera. With camera body & finder, Angénieux 12-120mm zoom lens, 400-ft. Frezzi/Mitchell magazine, film load, internal battery, side-mounted amplifier, & sound head, new FR-16 "ready-to-roll" weighs only 16½ lbs(7.5kg). *FR-16 Frezzi-Flex™ is manufactured in the U.S.A.*

Frezzolini 16mm ciné cameras & E.N.G. support equipment.  7 Valley St. Hawthorne, N.J. 07506 USA

For information call  
(N.J. 201) 427-1160  
(N.Y.C. 212) 594-2294  
Frezzolini Electronics Inc.



# Free

byron's celebrated price list



## Our prices cost nothing.

This free new Celebrated Bicentennial Price List lets you compare exactly what we charge for the best film and video tape processing with what others charge.

A lot of people have found the low-down on our prices is a lot lower than they thought.

Since there's no charge for finding out how little byron charges, you can feel completely free to send for our new price list this very minute.

**byron** COLOR-CORRECT®

65 K Street, Northeast Washington, D.C. 20002 202/783-2700  
Professional Film and Video Tape Laboratories