

AUGUST 1971

AMERICAN

75 CENTS

Cinematographer

International Journal of Motion Picture Photography and Production Techniques



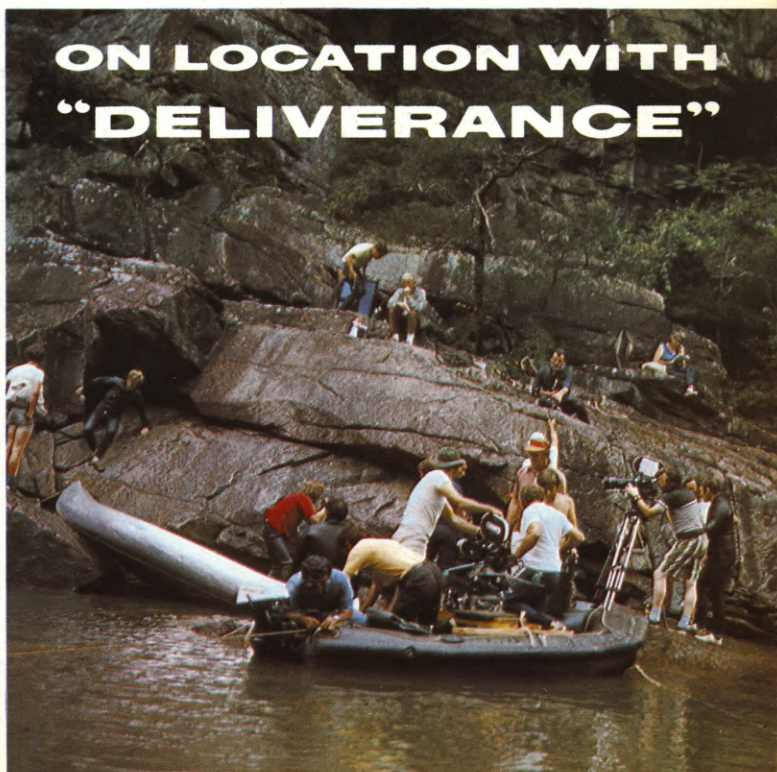
FOURTH ANNUAL ATLANTA INTERNATIONAL FILM FESTIVAL

johnny got his gun

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Magnetic Heads 16 or 35mm	\$ 26.25

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1—Rivas 35 Diagonal Cut	\$ 140.00
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Quantity	Unit
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1—Mitchell Baby Legs	\$ 105.00
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4—Cases For Arri. Baby Tripod	\$ 11.65

Quantity	Unit
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5—Pic Stands #4709 9 Ft.	\$ 14.00
3—Lowell Stands	\$ 32.25
3—Lowell Link Poles	\$ 14.75
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1—Lowell Quartz R (Less Lamp)	\$ 51.00
6—Colortran LQM/6A 650W-Mini 6 (Less Lamp)	\$ 38.15
6—Colortran LQM/10A 1000 Mini 10 (Less Lamp)	\$ 40.60
5—Colortran Mini Pro (Less Lamp)	\$ 36.00
8—Colortran LQK6/DY-Dual 650 (Less Lamp)	\$ 25.83
6—Colortran LQK10/DY Dual 1000 (Less Lamp)	\$ 32.83
3—Colortran LQF 10/Multi 10 (Less Lamp)	\$ 50.00
6—Colortran LQK/10DM Dual 1000 Screw Base (Less Lamp)	\$ 25.00
16—Colortran DQK 10 Accessory Holder For Dual 1000	\$ 5.50

Quantity	Unit
7—Colortran DQK 6 Accessory Holder For Dual 650	\$ 4.87
25—Colortran B2QK 10 2 Leaf BarnDoor for Dual 1000	\$ 9.50
4—B4QK 10 4 Leaf BarnDoor For Dual 1000	\$ 11.87
4—B4QK6 BarnDoor For Dual 650	\$ 10.98
1—Sylvania Sungun Head	\$ 34.50

Quantity	Unit
LENSES, METERS, MICROPHONES, MISCELLANEOUS EQUIPMENT	
4—25-250 Angenieux Zoom	\$1926.00
1—9.5/95 Angenieux w/7 1/2" Finders "C" Mount	\$1031.00
2—Weston Master V Meters w/case	\$ 25.75
2—Luna Pro	\$ 51.00
1—Synchro Microphone	\$ 182.00
1—Electro Voice 642	\$ 211.00
3—1200 Ft. 16mm Mitchell Magazine	\$ 175.00
50—Slates and Clapstick	\$ 5.50
1—Arri. Fibre Glass Blimp For S or M Used	\$1300.00
1—Arri. Metal Blimp 16mm Used	\$ 700.00

Quantity	Unit
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25—4 1/2" Round ND Filter	\$ 27.00
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3—4 1/2" Round #21 (Orange)	\$ 22.50
5—4 1/2" Round #56	\$ 22.56
Series 6, #15, 56, 21, 23A, 25, 6, 8, 12, 3N5, 8N5, MD	\$ 1.75
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Series 8, #6, 11, 12, 13, 15	\$ 5.37
Series 9, #12, 21, 25, 56, 23A+56, 3N5	\$ 6.97
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Where you can go with a briefcase, you can go with an NPR.

With its 400 foot magazine, the Eclair NPR weighs only 19 pounds. But it's not just weight that counts; it's also handling. Unlike its competitors, you can carry the NPR easily in one hand. It's about the same size and shape as a briefcase; and the handle is at the point of balance, on top.

Balance. The NPR's rear-mounted magazine puts much of the weight over your shoulder when you're shooting. You don't hand-hold the NPR; you *shoulder-rest* it. The NPR's magazine doesn't stick up in the air over your head, and

the lens doesn't stick out way in front of you.

Down there at your side like a briefcase, the NPR is so unobtrusive that you can walk into places that are off-limits to the bulkier rigs. When you start shooting, you don't need a shoulder brace. And up on your shoulder, the NPR is *still* unobtrusive.

"We can go into a place and, before the people are aware of it, we've made a whole half-hour sync sound film with two cameras in one day." That's the opinion of award-

winning film maker Barry Brown, writing in PMI magazine about his own experience with the NPR.

For a free NPR brochure, write to us at 7262 Melrose Ave., Los Angeles, Calif. 90046; or at 73 S. Central Ave., Valley Stream, New York 11580.

eclair

NPR: THE SUPER 16 CAMERA

Suddenly, New York has a 'West Coast'

It had to happen, sooner or later

We just made it sooner. Gave New York its own ultramodern filmmaking center to keep pace with its imaginations. A total rental-fabrication-manufacturing facility. And a multilevel soundstage complex equipped for everything from commercial to feature.

Making films in New York is a way of life. We understand it. Live it. And designed around it, drawing on years of experience on all types of feature, commercial, industrial and educational work.

Two years, seven stories and 40,000 square feet later

(plus innumerable gallons of blood, sweat & tears spilled on 38th Street and Eleventh Avenue), we have the most complete service-oriented equipment source anywhere. Park (yes, we said park!!!) outside our door, and you'll find a building-full of experts at getting things done. Backed by a huge inventory of the world's finest camera, lighting, grip and sound equipment. Supported by some of the finest optical and machine shops to be found anywhere.

Our vision and PANAVISION

As the building took shape, people were impressed. We were impressed. So, apparently were the Panavision people, who

named us exclusive East Coast Distributors. Which we find especially flattering, since they've long been noted for pioneering the latest in cinematography. Without compromise.

All this equipment and no place to go


Knowing filmmaking, and filmmakers, we realized New York needed something more: a soundstage—or more realistically, a soundstage *complex*—to give motion picture professionals the facilities and flexibility they need to utilize today's most advanced cinema technology. Without a lock, stock & barrel transcontinental migration. So that any additional location or stage takes wouldn't require back-and-forth trekking.

But instead of the usual re-conversion of the sprawling ex-garages now dotting the west side, we started from the ground up. Resulting in a three-studio complex that tops anything you'll find this side of the Sacramento (and possibly even further West).

Enough aerial photography

In the not-too-distant future, we'll be introducing New York's West Coast to the filmmaking public. But why wait? We're waiting to make you part of the excitement at

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• FEATURE ARTICLES

- 758 THE FOURTH ANNUAL ATLANTA INTERNATIONAL FILM FESTIVAL**
With more than 1200 entries from 32 countries in 56 categories, this year's event is bigger and better than ever
- 762 "JOHNNY GOT HIS GUN"—Golden Phoenix and Golden Dove Awards**
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London's Second International Film Technology Conference and Exhibition attracts film folk from many nations and scores as a smashing success

- 796 On Location With "DELIVERANCE"**
Editor ropes his way down into a 1200-foot chasm to observe filming of a stark and violent tale that is a real "cliff-hanger" for cast and crew—and hopefully, will be for the audience, too

• DEPARTMENTS

- 750 Cinema Workshop**
- 804 Questions & Answers**

ON THE COVER: (Clockwise from top left) Symphony Hall of Atlanta's multi-million-dollar Memorial Arts Center, filled to capacity for Film Festival screening; Atlanta Film Festival founder/Executive Director J. Hunter Todd presides over main table and greets those attending Awards Banquet in Main Ballroom of Royal Coach Hotel; A scene on Cahulawasse River, in back-country wilderness of northern Georgia, during filming of Warner Bros. feature drama, "DELIVERANCE"; A scene from Dalton Trumbo's "JOHNNY GOT HIS GUN", Golden Phoenix (Best of Festival) and Golden Dove Peace Awards at Atlanta Film Festival.

AMERICAN CINEMATOGRAPHER, established 1920, in 52nd year of publication, is published monthly in Hollywood by ASC Agency Inc., 1782 North Orange Drive, Hollywood, California 90028, U.S.A. **SUBSCRIPTIONS:** U.S. \$7.00; Canada, foreign, including Pan-American Union, \$8.00 a year (remit International Money Order or other exchange payable in U.S.) **ADVERTISING:** rate card on request to Hollywood or New York office. **CHANGE OF ADDRESS:** notify Hollywood office promptly. Copyright 1971 ASC Agency Inc. Second-class postage paid at Los Angeles, California.



SUPER 16

'SUPER 16' is essentially a 'BLOW UP' system, ideally suitable for low budget films.

Because the camera original must undergo a great deal of enlargement, quality must be maintained at every stage of the process.

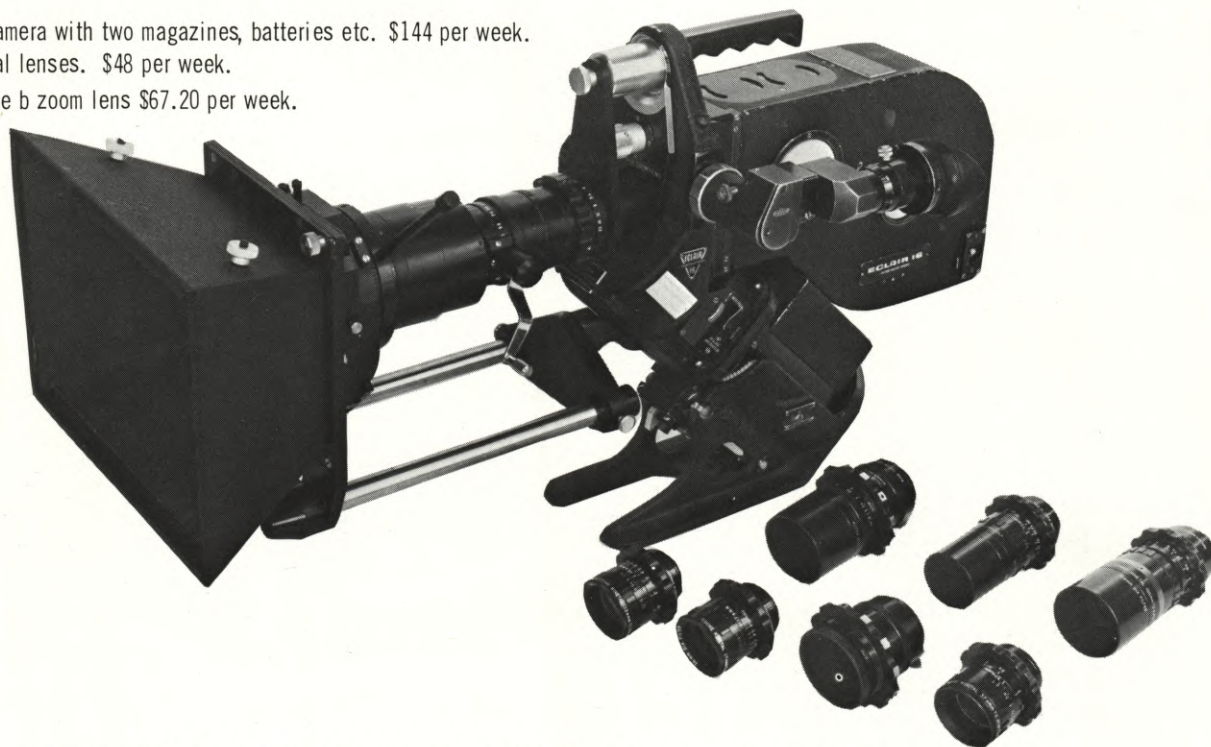
Our 'SUPER 16' Eclair cameras have been modified with this in mind. The aperture has been enlarged, the optical centre re-aligned and the magazine rollers and film guides relieved. For optimum quality we provide our 'SUPER 16' cameras with a matched set of Cook Kinetel lenses, (12.5, 17.5, 25, 37.5, 50 and 75 MM.), in addition to a special 10 x 12 zoom lens which covers the enlarged picture area.

Rental price:

'SUPER 16' Eclair camera with two magazines, batteries etc. \$144 per week.

Set of matched Kinetel lenses. \$48 per week.

Angenieux 12-120 type b zoom lens \$67.20 per week.



FOR ALL YOUR PRODUCTION REQUIREMENTS

- | | |
|--|---|
| CAMERAS: Arriflex, Auricon, Beaulieu, Eclair, Mitchell, Panavision, etc. | EDITING EQUIPMENT: Moviola & Steenbeck Editing Machines, Joiners, Synchronisers, Moy Numbering Machines, etc. |
| LENSES: Wide Aperture, Wide Angle, Normal, Telephoto and Zoom. | EDITING FACILITIES: Cutting Rooms, Production Offices, Music & Effects Libraries, Mobile Cutting Room & Viewing Theatre. |
| PANAVISION: Anamorphic and Spherical (non-anamorphic) lenses, 35 and 65mm. cameras, etc. | DUBBING: Westrex 16mm. Reversible. |
| DOLLIES: Colortran, Elemack & Moviola. | VIEWING: 16 and 35mm. Single or Double Head. |
| CRANES: Up to 28ft. lens height. | PORTABLE PROJECTION: 16 or 35mm. Single or Double Head. |
| TRIPOD HEADS: Cartoni, Miller, Moy, O'Connor, Ronford, Vinten & Worrall. | STILL CAMERAS: Mamiya, Pentax, Polaroid. |
| HELICOPTER MOUNTS: Tyler Major, Middle & Mini. | CLOSED CIRCUIT T.V.: Plumbicon & Vidicon, T.V. Viewfinders for Film Cameras, VTR. |
| LIGHTING EQUIPMENT: Colortran, Lowell, Mole Richardson, Battery portable, Strobe, Waynco Brutes, Ianiro, etc. | CAMERA CARS: With front, roof & rear platforms, Casper Camera Insert Cars. |
| RECORDERS: Nagra, Westrex, etc., mono or stereo. | MOBILES: Samcine - Hollywood Mobiles. |
| SOUND ACCESSORIES: Fisher Booms, all types of microphones. | PRODUCTION FACILITIES: Full technical crews as required. |
| TELECOMMUNICATIONS: Walkie talkies, Transmitter/receivers up to 25 watts output, Loudhailers, etc. | TECHNICIANS: All grades. |
| SOUND TRANSFER: 1/4in., 8, 16, 17.5 and 35mm., by Westrex. | FREIGHT AND PASSENGER HANDLING: Our own Offices at London & Amsterdam Airports. |

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The Lowell Link System holds up everything except the shooting. And travels in one case!

Lightweight, modular components let you quickly link up all these rigs, and many more, even on distant locations.

You can never be really sure what you'll need on location until you finish shooting. So you either haul a truckload of conventional grip gear, or try to improvise on the spot. You lose time, money or quality.

But now you can take along virtually everything you'll need, without straining your budget or

your back. Link components snap together in countless combinations to form booms, background supports, flags, floor-to-ceiling poles, water weights, stand extensions, braces, rigging devices.

You can attach a Lowell Quartz (shown above), Lowell Soft-light and most location lights to any part of our rigs, or to a door.

Components are available individually and in kits. You can make all the above rigs from one kit. Not all at one time, but several at one time, including many not shown.

For more details, see your dealer. Or ask us for our free brochures.

LOWEL



Lowel-Light Photo Engineering
421 W. 54th St., New York 10019
Phone number: (212) 245 6744

What the handgrips can do will give you some idea of what the camera can do.

The idea behind the Bolex 16 Pro was to give the professional a 16mm sound camera that would satisfy him in every way. We started with a clean sheet of paper and a list of the things we felt a professional camera should be able to do. By the time we finished, we had a 16mm camera like no other. Everything about it was different—starting with the handgrips.



EVERYTHING AT YOUR FINGERTIPS.

The handgrips of the Bolex 16 Pro aren't for holding the camera. They're for operating the camera. When you wrap your hands around the grips, your fingers rest on sensitive rocker switches that control the power zoom and power focus (which can also be operated manually). You control the rate of zoom and focus through a built-in rheostat.

The handgrips also house the running speed selector and the fade-in fade-out control.

Extension sockets in the ends of the handgrips let you operate the camera remotely, from as far as twenty feet.

And if you should drop the camera on its handgrips, while on location in Timbuktoo, the grip can be replaced. Because the camera and its power source are modular.

BODY HELD. NOT HAND HELD.

We wanted a camera that would work equally well on or off the tripod. In the studio or on location. So we designed ours to rest comfortably on the shoulder. By using a monopod attachment, the camera becomes entirely body held, leaving your hands free to guide and operate it.

WE BUILT A BETTER MAGAZINE.

We placed our 400' co-axial magazine to the rear, making the camera easy to work with in tight spots, like inside a car. We've minimized loading and handling. The film threads itself automatically, from core to core, in three seconds. Then a signal light tells you the camera is ready for shooting. (This same light also indicates when the film is exhausted.) A built-in cutter makes it easy to remove partially exposed film.

ELECTRONICALLY DRIVEN MOTOR.

The Bolex 16 Pro has a built-in four-in-one electronically controlled motor that runs at variable speeds of 16 to 50 fps, forward and reverse. (There's also a model with speeds of 16 to 100 fps.) It can also shoot single frames for animation and time lapse studies. The motor operates so quietly that it produces only 32 db's five feet from the lens. So no blimp is needed. And because the motor starts and stops instantly, at all speeds, there are no blank frames between scenes.



The motor drive is crystal controlled, providing an accuracy of plus or minus one frame in 1,000' of film. The camera permits synch sound shooting without direct connection to a tape recorder.

OUR LENSES. AND MORE TO COME.

Presently we have three interchangeable lenses for the Bolex 16 Pro. An Angenieux f/2.2 12 to 120mm zoom. A fast Schneider f/2.0 10 to 100mm zoom. And an extreme wide angle Zeiss Distagon f/2.8 8mm lens. An additional 20 to 1 Angenieux 12 to 240mm zoom will be available shortly. And it's possible to adapt some of your own lenses for use on the Bolex 16 Pro.

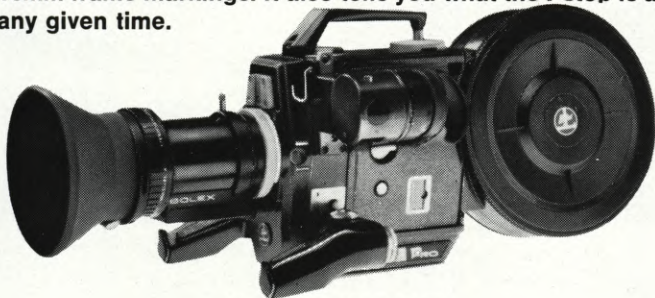
EXPOSURE CONTROL. AUTOMATIC AND NOT.

It's there, even if you choose not to use it. The Bolex 16 Pro has a through-the-lens light metering system and automatic exposure control, for film speeds of 12 to 1600 ASA. The meter is coupled to the camera speed control, and adjusts itself automatically to correspond to any changes you make in the running speed. A manual override control is built right into the handgrip, so you can take over any time you please, without so much as moving your hand.

THE VIEW FROM THE FINDER.

The Bolex 16 Pro is a mirror reflex camera with a 20 X magnification at the viewfinder. The mirror is always in viewing position when the camera stops. The viewfinder converts instantly from ground glass to clear glass, to give a brighter image in dim light or with the lens stopped down. You can rotate the viewfinder 45, 90 and 180 degrees, which makes it possible to film with the camera aiming backwards over your shoulder.

The viewing screen has a TV area marked off, as well as 16mm frame markings. It also tells you what the f-stop is at any given time.



PUT IT ALL TOGETHER.

When you bring the automatic features of the Bolex 16 Pro into play, you can do some very remarkable things. You can follow focus and zoom at the same time, while panning from light to dark areas. (Ordinarily you'd need at least four hands to do that.) You can make automatic time lapse studies in changing light conditions. The Bolex 16 Pro was designed to be the best all-around 16mm sound camera of all time. We invite you to see how successful we were.

BOLEX 16 PRO

If you'd like a demonstration of the Bolex 16 Pro, please write Paillard Incorporated, 1900 Lower Road, Linden, N.J. 07036. We'll notify you when we'll be in your neighborhood.

NAME _____
AFFILIATION _____
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For countries outside the U.S.A., write Bolex International S.A., 1450 Ste. Croix, Switzerland.



"Scoopic 16 shoots the news faster than any other camera available."...Says Henk de Wit, Director of Photography at KDFW-TV Dallas.



Staff at KDFW-TV Dallas ready to film the news when it happens, where it happens with their Canon Scoopic 16s.*

Canon's Scoopic 16. Made for action moments. Because it shoots them faster than any hand camera around. That's a large claim for an under 7-pounder. Uniquely designed hand-grip. Fully automatic exposure control with manual override. A built-in zoom lens. Motor drive and auto threading. All adding up to a perfect shot. Everytime.

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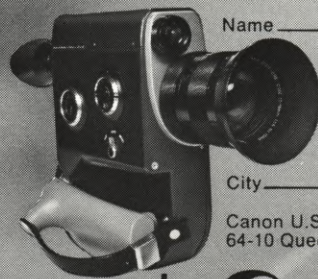
Please tell me more about the Canon Scoopic 16. The "action moment" 16mm. In focus for even the unexpected.

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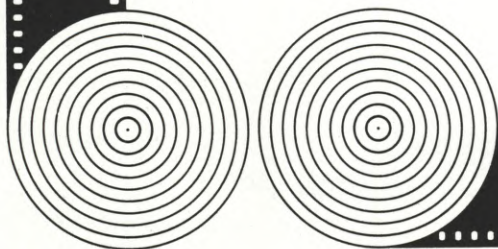
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64-10 Queens Boulevard, Woodside, New York 11377

Canon/SCOOPIC 16

*All Canon Scoopic 16s pictured, sold and serviced by Professional Cine Products, Inc., Dallas, Texas.



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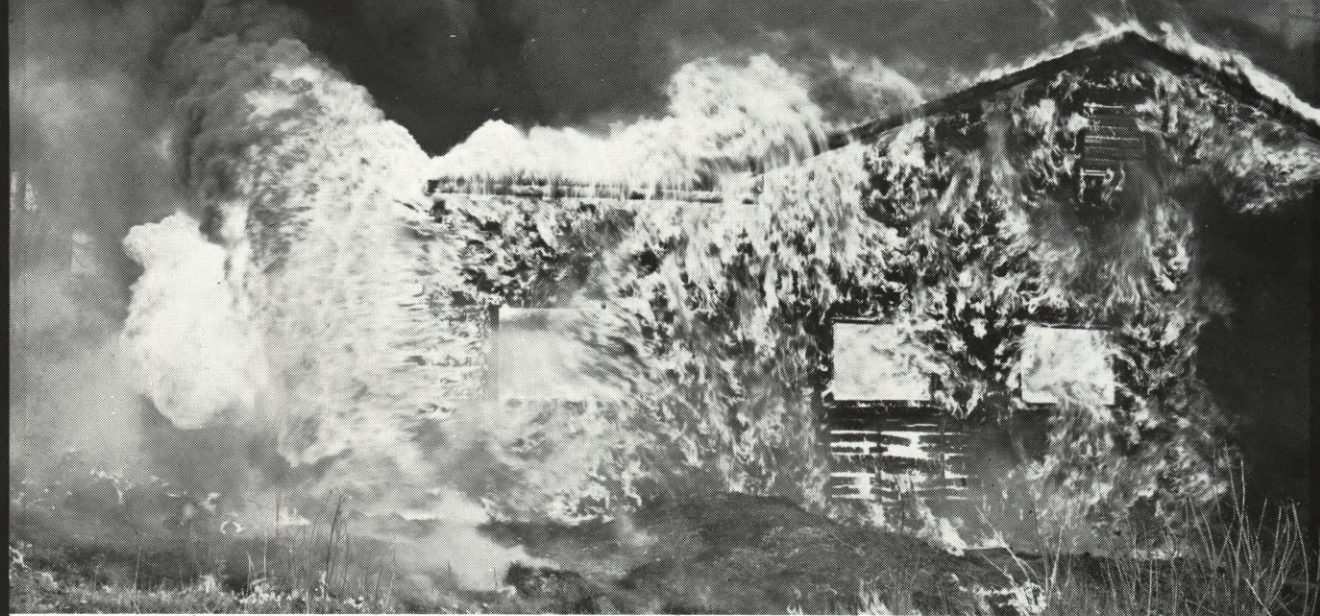
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IT HAS THE MOST IMPORTANT FEATURE YOU CAN BUY

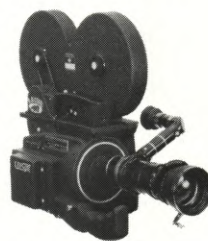
In a TV news camera, dependability makes every other feature seem less important. If your camera isn't ready for action whenever or wherever the action is, then light weight, lower price, special gadgets or a new configuration won't help you. The dependability has to be built in.

Dependability is the middle name of F & B/Ceco's TV News Camera. The reason is that F & B/Ceco is a company of camera craftsmen. They *pioneered* the TV news camera conversion to its present form. They led the way on every *major* improvement through the years. Their craftsmanship and know-how are the backbone of F & B/Ceco's dependability. And their camera is the backbone of the news in more than 50% of all TV stations.

Little wonder that every important news event in the past 15 years has been covered by an F & B/Ceco camera. There are more in use than all other

news cameras combined.

If you're looking for a TV news camera, consider dependability. It's the most important feature you can buy. And it costs you no more.



**NOW —
NO CABLES!
You can run
with your
F & B/Ceco TV
News Camera**

With the new Frezzi-Cordless internal battery, you can run eight 400' rolls without a power cord. It's a quick-change internal battery. And your camera can also run on AC power or any portable power supply. Another of the many options available with your F & B/Ceco TV News Camera.

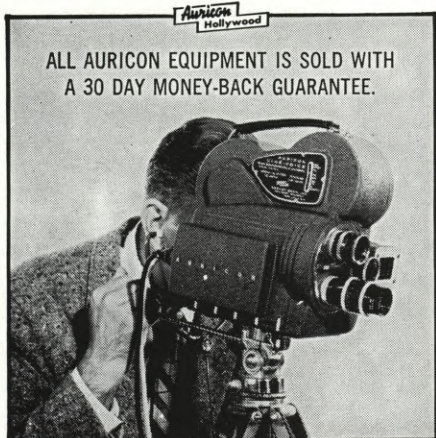
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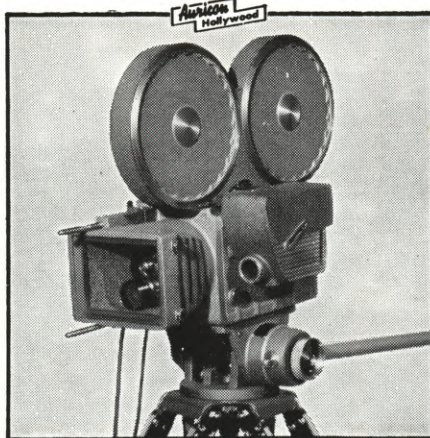
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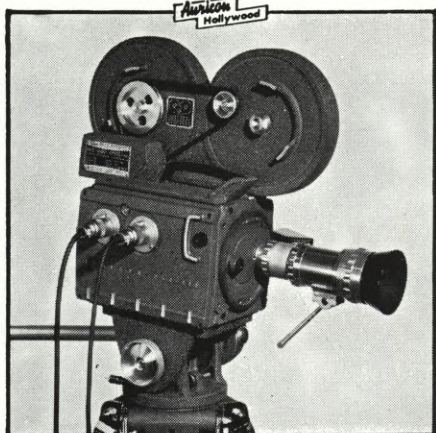
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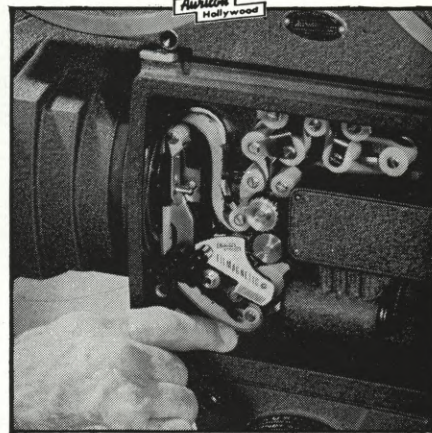


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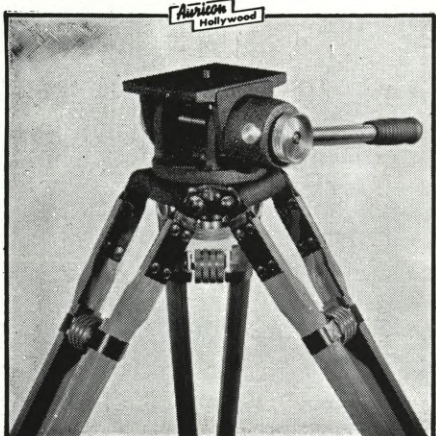
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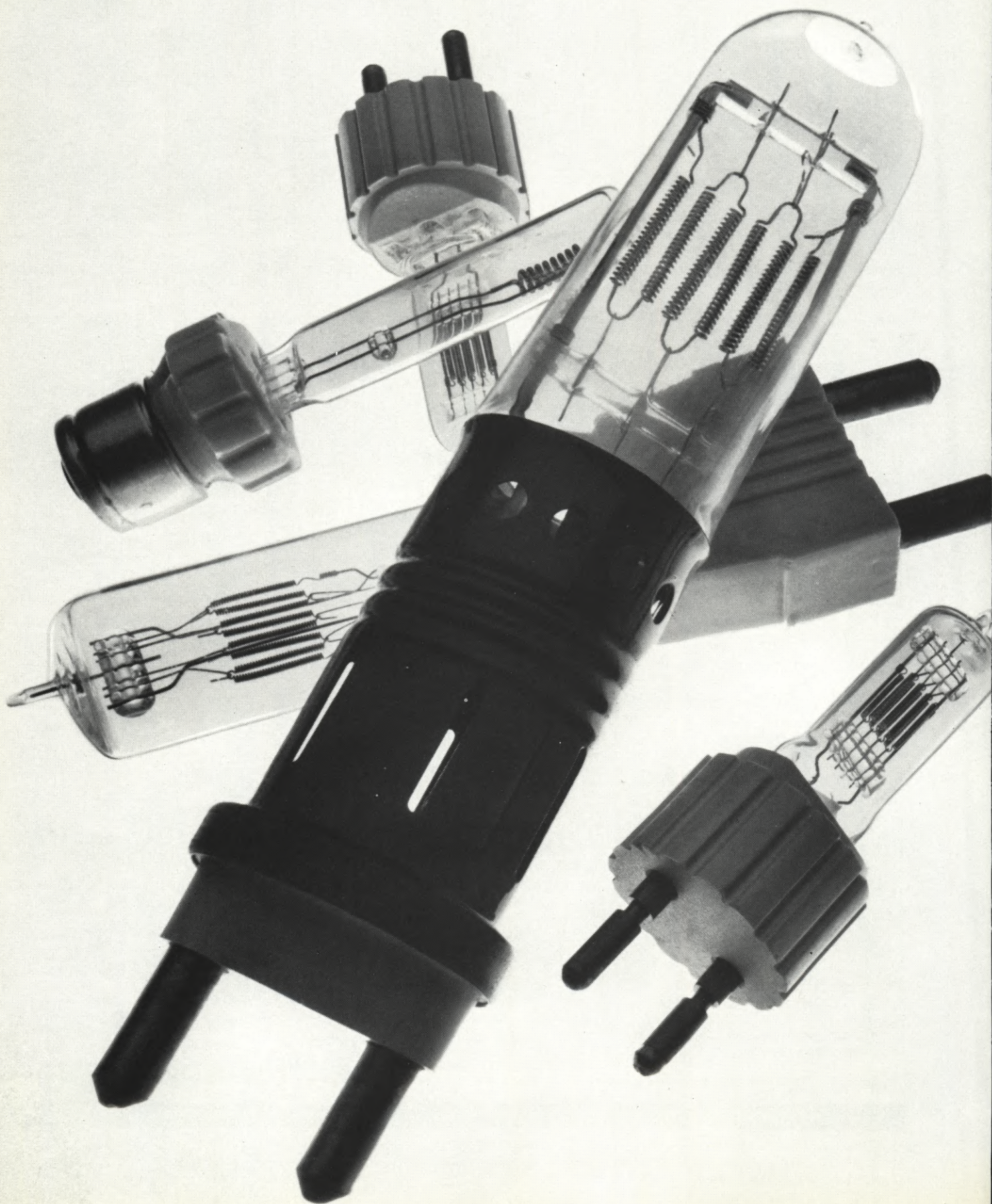


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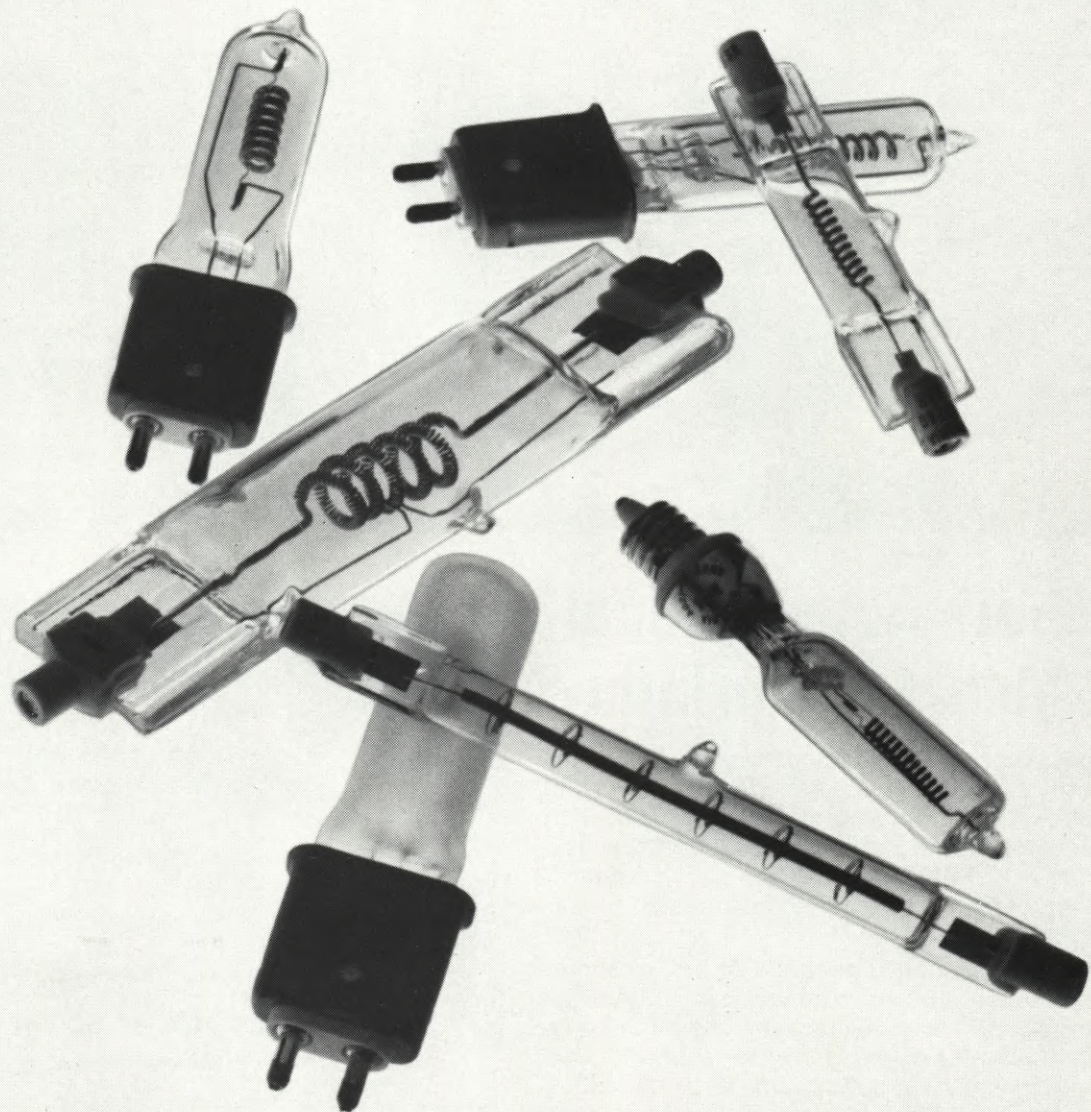


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for those big, fat incandescents.**



Some of our substitutes for our substitutes.



Those big, fat incandescents blessed the world with a lot of big, fat fixtures and sockets.

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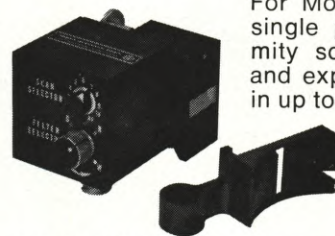


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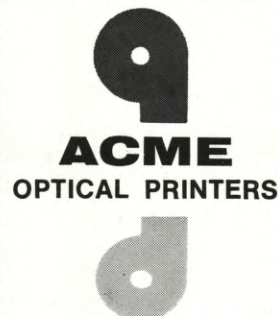
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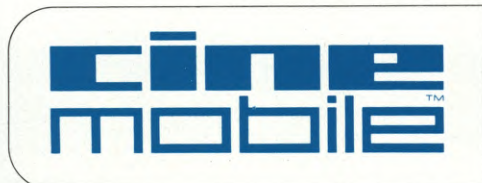
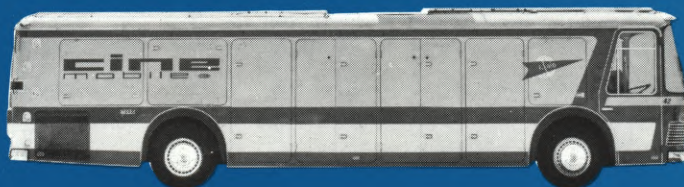
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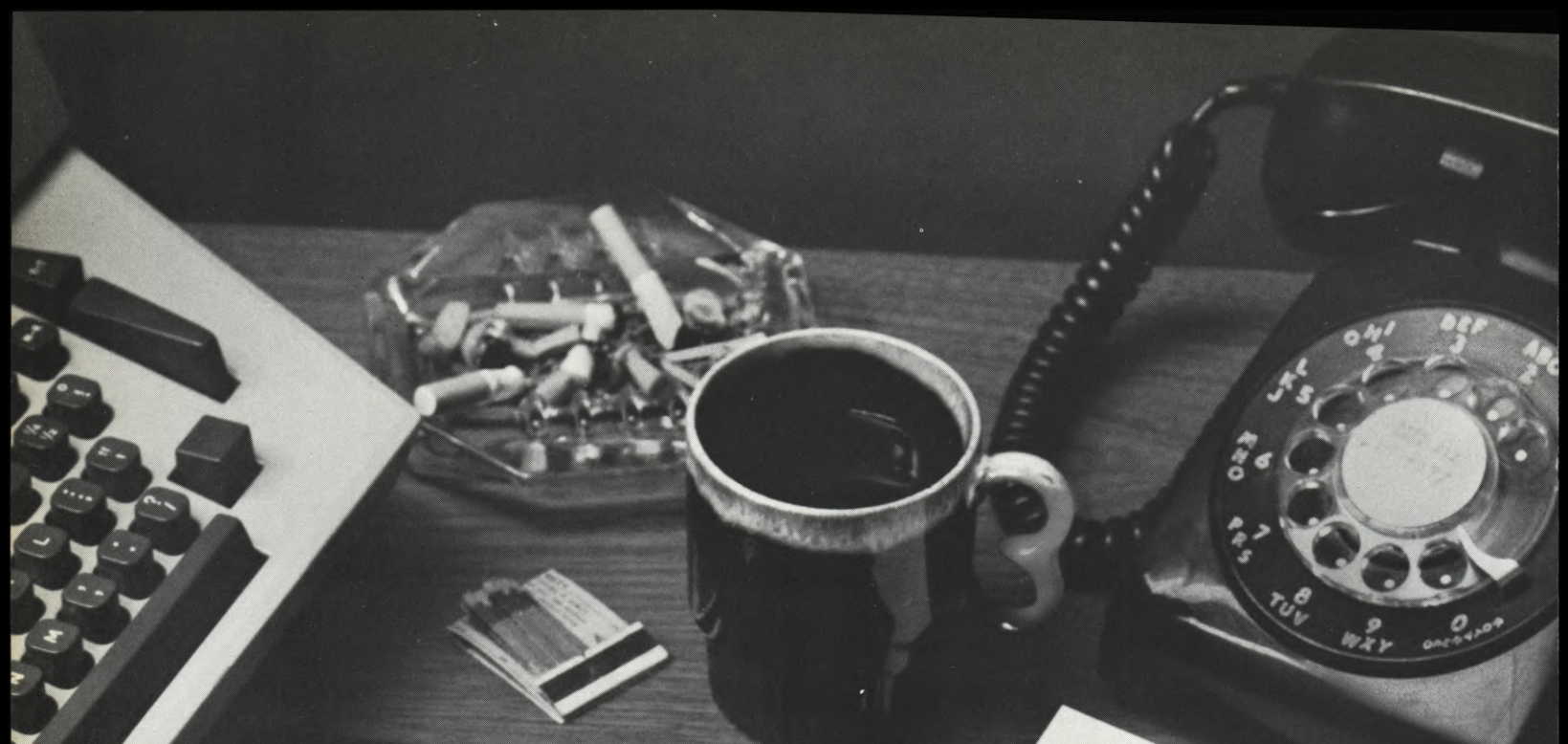
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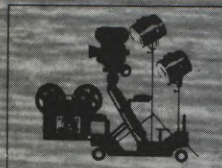
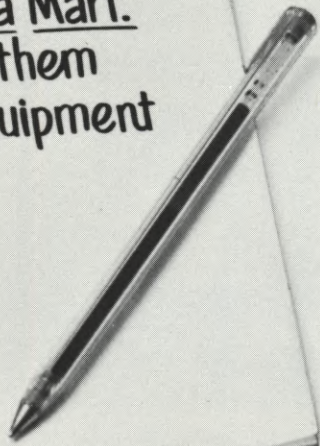
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SCRIPT CONT
And they rode off into the sunset and lived happily ever after.

The End

R.B. —
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Gimbel filming Whitetip oceanic shark - Taylor in cage.



Peter Gimbel, dressed in a wet suit for the cold, long dives off Dangerous Reef, South Australia.



Planning tactics at Dangerous Reef. Left to right: Gimbel, Waterman, Taylor (standing) Cody and Lipscomb.

“We were beyond reach of repair, so the cameras had to be Arri’s”

... Peter Gimbel, Producer/Co-director/Underwater Cameraman,
“BLUE WATER, WHITE DEATH”

Scores of sharks, attracted by the blood and death throes of the whale, circled the divers and cages. The whale had been harpooned and left temporarily by a commercial whaling ship. The sharks, ranging in length from 8 to 12 feet and weighing up to 1,000 pounds, tested the divers' cages with blows.

The divers had photographed such scenes before, but now, by pre-agreement, they left the protection of their cages (photo, left) for closer, wide-angle shots of sharks in a feeding frenzy. Immediately, the sharks closed in on the divers. What follows is perhaps the most extraordinary underwater scene ever filmed. It is part of the *cinéma vérité* feature, “Blue Water, White Death”.

Produced for Cinema Center Films, for theatrical release, the 35mm Techniscope production covered thousands of miles in its search for the Great White Shark, the largest and most dangerous of its kind in the world.

“We worked in places that had never been explored,” said Producer/Co-director/Underwater Cameraman, Peter Gimbel, “sometimes where the bottom was a mile deep. Currents were tricky, and more than once swept our divers great distances from our boat. With the sea itself so threatening, I'd occasionally wished our subject was something like plankton. But our subject was sharks, and our business was to attract them by the dozens.”

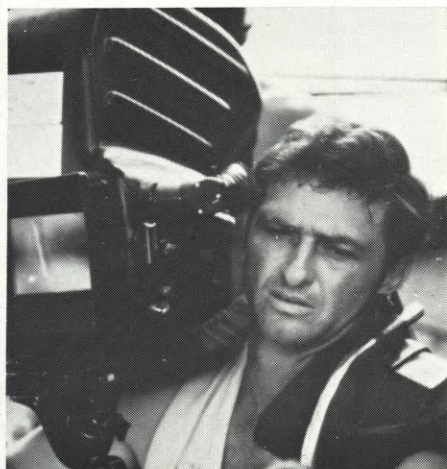
“We already had enough to worry about,” continued Mr. Gimbel, “so the cameras had to be Arri's. Most of our filming was carried out at remote locations far at sea, way beyond reach of replacement or repair of our equipment. Durability, performance and reliability are at a high premium under those conditions. We shot 180,000 feet of color film in Techniscope, both underwater and on the surface using six hand-held Arriflex 35's. We never had occasion to regret it.”

No regrets. That's why Arriflex is first choice when there's no second chance.



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Surface photographer and co-director James Lipscomb with blimped Arriflex 35.

All photos by Peter A. Lake

CINEMA WORKSHOP



By ANTON WILSON

AUTOMATIC SLATING

Slating with the built-in camera "bloop" light and tone oscillator in the recorder is quick, simple, and as accurate as a clapstick. However, due to some widespread misunderstandings, many editors negate the inherent accuracy of this system by improperly interpreting these start marks. The automatic slate (bloop light) and the conventional clapstick share the same basic principle: an event occurs that is simultaneously recorded on both the picture and sound track. In the case of the clapsticks, the event is the two sticks coming together and touching. This is visually recorded by the camera, and the "bang" is reproduced on the sound track. In the automatic slating system the event involves a relay inside the camera that changes position shortly after the camera is started.

This relay controls three functions: power to the "bloop" lights in the camera, power to the "beep" tone oscillator in the recorder (via pilotone cable), and the pilotone signal itself. The instant the camera is started, the relay is in position #1, the "bloop" lights are powered, the "beep" tone is powered, and the pilotone is off. After approximately $\frac{1}{4}$ to $\frac{1}{2}$ second, a timed circuit snaps the relay into position #2 which extinguishes the "bloop" lights and "beep" tone, and begins the pilotone signal. The relay snapping into position #2 is the event; it is visually recorded by the bulbs going out and the beep going off. This is most important. The start mark is thus the last fogged frame on the film and the point on the tape where the "beep" ends, because these points correspond to the bulb going out and the oscillator going off. The number of fogged frames is totally insignificant (it can be four or forty), it is the last fogged or partially-fogged frame that is the sync point. The $\frac{1}{4}$ to $\frac{1}{2}$ second time delay before the relay snaps into position #2 is designed to allow the camera to achieve proper running speed before slating occurs. Thus, this delay must be longer than the time necessary to run the motor up to speed. With most professional cameras, a delay of

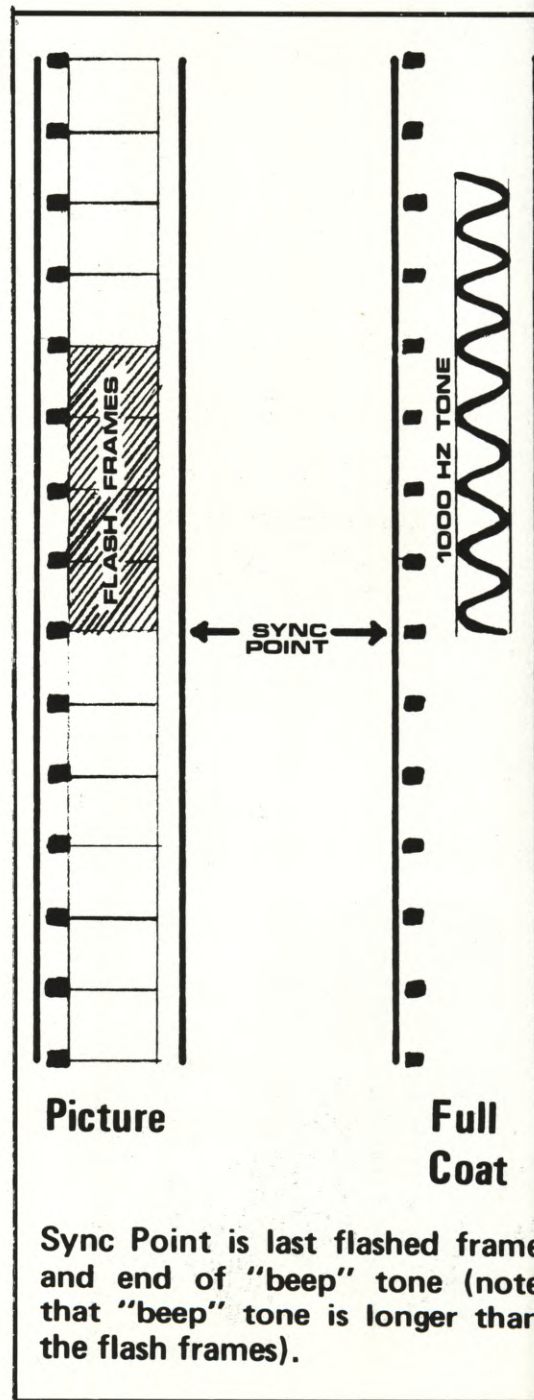
four to six fogged frames is ideal. Less than four fogged frames is cutting it close, and under certain conditions slating may occur before the motor has reached speed. More than seven or eight fogged frames will have no effect on slating accuracy; it is just wasteful. Most cameras have a simple adjustment for the number of fogged frames.

It should be clear that attempting to sync on the first fogged frame and beginning of the beep is totally invalid and will definitely result in improper synchronization. Referring to FIGURE 1 may help clarify this point. The tape recorder is always on, and at proper speed. Thus the length of the "beep" tone on the full coat will be directly proportional to the original length of time that the "beep" oscillator was on. For example, if the time delay on the relay is one second, there will be 24 "beeped" frames on the full coat; if the delay is $\frac{1}{2}$ second, the "beep" will last 12 frames on the full coat, etc. However, this is not true of the camera film. When the camera is started, it is at a dead halt. Even though it eventually reaches 24 fps, it only averages approximately 12 fps during run-up (averaging 0 at beginning of run-up and 24 fps at end of run-up). Thus if run-up takes 1 second, only 12 frames will be fogged, or if run-up is $\frac{1}{2}$ second only 6 frames will be fogged. Taking a run-up time of $\frac{1}{2}$ second as a hypothesis, it should be clear that you will have 12 beep frames on the full coat and only 6 fogged frames on the film. Proper sync is, of course, the last fogged frame and the end of the beep because both camera and recorder are at speed. If the first fogged frame and the start of the beep were employed, sync would be off by 6 frames in this example.

Earlier I mentioned that the relay controls three functions; the bloop lamps, the tone oscillator and the pilotone. The system that is prevalent in the United States incorporates the former two functions, namely the bulbs going out and the beep ending. Another system, known as the inaudible or European system, does not employ the beep tone at all. This system depends upon the third function of the relay: when

the lamps go out, the pilotone comes on. Thus sync is determined by the last fogged frame and the beginning of the pilotone. In practice, this inaudible mark is made audible during the resolving or transfer to full coat. A special

Continued on Page 830



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Dallas is a top-ranking film center, and towering high in the complex is Southwest Film Laboratory and SWFL customer service men like Charles Floyd who keep America's 16 MM producers happy. This has been a "happening" for producers using Southwest over the past 20 years. A call to SWFL on your next film will prove our point on: helpfulness — efficiency — speed — accuracy — and above all . . . quality. If you need such service in your 16 MM processing needs, SWFL will restore your faith, and fast. Call us now. Meanwhile, write for your copy of the latest price list.

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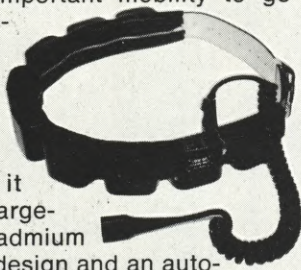
(the next-best thing to instant success)

Most moviemakers will agree that the difference between good footage and *great* footage goes beyond talent and luck—it's the little things that often make the difference. Little things like extra mobility, to follow fast-moving action. Or a few extra dB of silence on the set. Little things . . . like the fleeting moment of news, captured because of a minute saved in set-up time. Or an unusual camera-mount that produces the "different" point of view you need.

Little things *do* mean a lot. And, for many of those important "little things," cinema professionals turn to Cine 60...

Instant Power

Wherever you go, whatever the shooting situation, Cine 60's exclusive power belt* gives you the power to run every professional camera on the market. Plus the all-important mobility to go where the action is. Available in voltages from 6 to 30V (and up to 7 ampere-hours), it features rechargeable nickel-cadmium cells, sealed design and an automatic overload safety switch. With built-in charger and plug-in coiled power cable, it is one of the most widely-used power sources available today.



Instant Quiet

Silence is golden, yet relatively inexpensive with the Cine 60 battery-powered fiberglass Blimp for Arriflex 35 cameras. Only 19 pounds, the Blimp permits shooting in even the most restricted spaces—with *all* standard lenses (even 18mm, without vignetting!). Inside, the camera is securely mounted, yet isolated acoustically from its surroundings. On the outside, a new, gear-driven mechanism permits smooth, accurate follow-focus via large, easy-to-use knob. All other controls and connections are conveniently placed on a rear control panel.



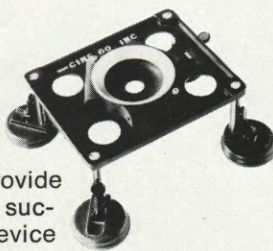
Instant Camera Pod

Our single universal shoulder pod ("unipod") is a lightweight shoulder mount that accepts all cameras. Easily removable between takes, it keeps the camera in the ideal shooting position while offering the maneuverability of single-shoulder construction. Used with the Uni-Eclair Mount (detailed later), this is the only practical pod for the Eclair NPR-16. (By the way, we also have an excellent double-shoulder pod as well.)



Instant Camera Platform

Wherever and whenever you need a stable camera platform, chances are our Vacu-Platform can provide it. This rugged suction-actuated device can be positively fastened to any smooth surface (car-tops, floors, etc.) without marring. A flick of a lever on its extra-large suction mounts does the job. Especially useful for low-angle work, it mates with standard tripod heads.



Instant Camera Mount

If you've ever watched a good shot pass you by while trying to thread a camera onto a tripod or shoulder pod, the Cine 60 Snaplok is your answer. Combining rapid, fail-safe operation with the ruggedness and precision alignment needed for day-in, day-out use, the Snaplok features light weight and high rigidity. One section mounts on the camera; the other on tripod or shoulder pod. A single pushbutton instantly separates the two. The base unit of the Snaplok is compatible with standard 1/4" and 3/8" sockets.



Instant NPR

Our Uni-Eclair Mount is just what the name implies—a universal mount for the Eclair NPR camera. Rugged, yet surprisingly light, it may be left on the camera at all times, ready for hand-held operation or shooting with a tripod or shoulder pod. And, it makes a handy camera rest between takes.



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Instant Rentals

Cine 60 also enjoys an excellent reputation for its line of top-quality rental equipment. All thoroughly maintained and delivered on-time. We'd appreciate the opportunity to fill your rental needs.

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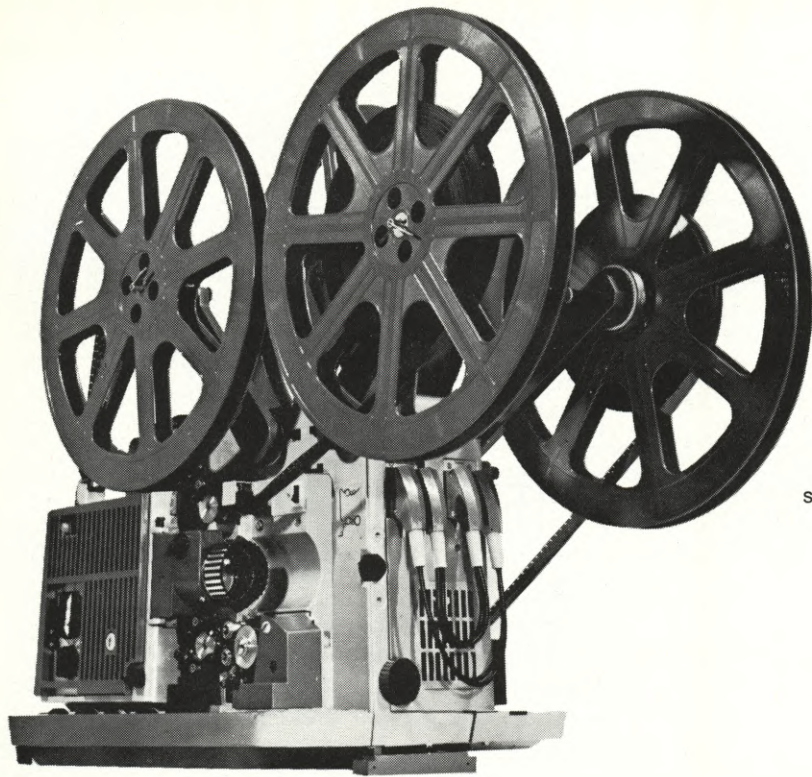
The integrity that marked the old Alexander Film continues into the new. Veterans in the business relied on Alexander. Our job, our commitment, is to a new generation in the business; to provide them with a service-source on which they will rely. Completely.

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Priced at only \$1095, this professional recorder offers an ideal combination of capabilities and economy, thoughtfully designed for operational simplicity and speed. Two microphone inputs, with pre-amplifiers for dynamic microphones, switchable to built-in power supplies for condenser microphones, individual speech/music selector and limiter switches—automatic start mark oscillator and footage counter . . . It's all here, coupled with convenient straight line threading, a tough cast magnesium frame, temperature compensated servo drive system and solid state plug-in printed circuits for endurance and easy maintenance. The Arrivox-Tandberg has all the quality and features you will ever need . . . at considerably less cost.



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“...and nobody wanted to hire me

...and that was a big comedown
...I had made a couple of shorts,
won a lot of prizes, and I
thought, wow, I've got it made
...but nobody wanted to take a
chance...so I kept this film in
my head for two years, and
Dave and I hocked everything
we had, bought a second-hand
movie camera for a few hundred
dollars and shot mostly on
weekends...we were lucky, we
had this cameraman who was
fantastic...and we got a lot of
help from Eastman...like
any time we had a technical
problem, we'd get in touch with
Eastman and they were great...
it made the difference between
a sloppy low-budget film, and a
quality low-budget film, and
don't think the audiences today
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this second film is much harder,
in a way...I mean if it isn't
good, they'll all say my first film
was a fluke...”

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(LEFT) Atlanta Film Festival founder-Executive Director, J. Hunter Todd, welcomes award winners and visiting celebrities to the Fourth Annual Awards Banquet. At left is Bob Clarke of the King Family, who alternated with Todd in presenting awards. (CENTER) Lovely actress Diane Baker, turned film producer, accepts Special Jury Award (Gold Medal) for her production, "ASHIANA", filmed in India. (RIGHT) "JOHNNY GOT HIS GUN" writer-director, Dalton Trumbo, accepts Golden Phoenix Award (Best of the Festival) and a congratulatory kiss from attractive hostess. He remarked: "Tonight, for the first time, I understand the true meaning of the term 'Southern hospitality'." At left is film's producer, Bruce Campbell.

THE FOURTH ANNUAL ATLANTA INTERNATIONAL FILM FESTIVAL

With an eight-day screening of 128 of the world's best films, World Premieres of several major features and a generous helping of Southern hospitality, Atlanta's Festival is better than ever

"From the city that gave you *Gone With The Wind*, *Coca Cola* and *Sweet Georgia Brown*".

So read the deliciously high-camp slogan of the Fourth Atlanta International Film Festival.

Although the city of Atlanta has, indeed, bestowed upon the world all that staggering *largesse*, the Festival itself offered even more—namely, an eight-day screening of 128 of the best films of all types to be assembled anywhere, 50 World Premieres of pictures ranging the entire spectrum of film production, retrospective showings of classic American silent features, seminars with some of the top film technicians in the industry, exhibits and demonstrations of the latest in motion picture equipment, and a final stylishly conducted Awards Banquet during which honors were accorded the makers of films in 56 separate categories.

Moreover, the entire affair was carried off without any of the pie-throwing buffoonery that has marred the San

Francisco Film Festival, the wheeling-dealing rat-race that has made a cheap farce of the Cannes Film Festival, the political chaos that has ripped the Venice Film Festival to shreds or the pseudo-artistic pretensions that have all but doomed the New York Film Festival.

Many attending the event were heard to remark that this year the Atlanta Festival had "reached maturity," had "come of age," had "entered the big leagues."

What they were referring to might have been one (or a combination) of the following elements:

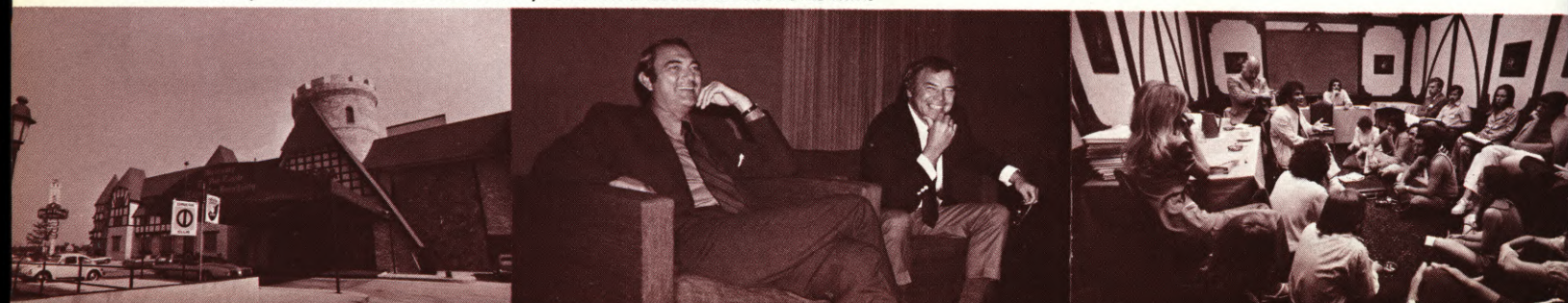
1. Expanded to eight days (instead of the previous six) and with more than 1200 films entered from 32 countries, the Atlanta Festival, in terms of entries, is indisputably the largest in the world.

2. With its judging categories increased to 56 this year, in order to honor films covering the entire spectrum of production, it is also the most comprehensive.

3. This year, for the first time, major production organizations such as Columbia Pictures, ABC and Allied Artists formally acknowledged the existence (and importance) of the Atlanta Film Festival by sending their top feature product to be premiered there. Columbia Pictures, for example, not only designated the Festival screening as the official World Premiere of "FOOLS' PARADE", but sent along two of the picture's stars (James Stewart and Strother Martin), its director (Andrew V. McLaglen) and its screenplay-writer (James Lee Barrett) to greet the crowds and hold informal seminars. The Festival was also favored by the American World Premiere of Dalton Trumbo's powerful "JOHNNY GOT HIS GUN", with writer-director Trumbo and producer Bruce Campbell in attendance.

In addition, technical representatives of the world's leading motion picture equipment designers and manufacturers were given display space for their latest
Continued overleaf

(LEFT) Atlanta's Royal Coach Hotel, official Festival headquarters, where visiting celebrities were accommodated, equipment seminars conducted and the Awards Banquet held. (CENTER) Andrew V. McLaglen and James Lee Barrett, director and writer, respectively, of World Premiering "FOOLS' PARADE", enjoy a laugh during informal seminar with local film buffs and students. (RIGHT) Moshe Mizrahi, writer-director of the French feature, "LES STANCES 'A SOPHIE", conducts a discussion about his film.



From the city that gave you *Gone With The Wind*, Coca-Cola and Sweet Georgia Brown.



**ATLANTA
INTERNATIONAL
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FESTIVAL**
JUNE 19 - 26
1971

products (at no cost to their companies) in the exhibit hall of the festival's official headquarters, the Royal Coach Hotel, where they also conducted technical seminars. The companies so represented included Anton/Bauer, Arriflex, Behrends, Inc., Paillard-Bolex, Cinema Beaulieu, Berkey/ColorTran, Eastman Kodak, Eclair, Kem/Keller/Intercraft Editing Systems, Lowel-Light, Mole-Richardson, Nagra, Valentino/Major Records Music Library, WRS Laboratories and several others.

Reporting directly from the Festival site in Atlanta, *Variety's* urbane critic, Sam Luchese, wrote: "Film and television showmen... were obviously impressed by the showmanship of the Atlanta Film Festival, this attributed chiefly to its director-founder, J. Hunter Todd. Interfilm, Todd's own industrial-advertising production company here, helps explain his professional flair. He's a producer-director, sometime scripter, cameraman and a poised and experi-

Interfilm's Executive Vice President who, at Festival time, is superbly cast as head of Hospitality. A slightly wacky young Southern gentleman of the old school, he presided over the Hospitality Suite with gracious charm and made sure that no visiting V.I.P. left without some "traveling music" (a glass of joy-juice) to tide him over during the long dry haul back to his hotel room. Equal to any contingency, "Reckless Rut", as he is affectionately known, can be said to have added an entirely new dimension to the concept of hospitality.

The Festival kicked off on Saturday afternoon, June 19, with an unusual train ride. Visiting celebrities and press were invited to board a chain of parlor cars drawn by an old-fashioned steam locomotive—a duplicate of that featured in the film "FOOLS' PARADE". Jimmy Stewart and the other celebs were swamped by autograph-seeking fans at the depot but, once aboard, they were treated to a leisurely hour-long circle-

packed to capacity.

On his way up to the stage, having been introduced by Todd, Jimmy Stewart was given a spontaneous standing ovation by the predominantly youthful audience. He expressed his appreciation in his typically understated way and was followed by Director McLaglen, screenwriter Barrett and Strother Martin—all of them obviously impressed by the warmth of the reception. "FOOLS' PARADE", a well-made suspense-adventure drama featuring an off-beat characterization by Stewart, was well received by the crowd.

During Festival week there were several informal seminars at which the public was invited to meet the film-makers and talk informally with them about their work. The first of these followed an afternoon retrospective screening of "SHENANDOAH", a 1965 Civil War drama which Barrett had written, McLaglen had directed and Stewart and Martin had acted in. Barrett and McLag-



(LEFT) Main table at the Awards Banquet was lined with celebrities who came from all of America to attend. (CENTER) The Serendipity Singers entertained at banquet, courtesy of the Atlanta Playboy Club, where they were appearing. (RIGHT) Beautiful Symphony Hall of Atlanta's imposing Memorial Arts Center was "packed to the rafters" for World Premiere of "FOOLS' PARADE" and twice more for screenings of "JOHNNY GOT HIS GUN", including a midnight "command performance" requested by Georgia Governor Jimmy Carter.

enced emcee, thanks to his background as a narrator."

The dynamic Todd is assuredly all of these things (plus one of the most pleasant human beings around) and credit for the Atlanta Festival's bang-up success must go primarily to him and his crew of youthful, totally dedicated assistants. Prominent among these is the Festival's stunning Director of Operations, Rikki Knipple, who is far too attractive to be as efficient as she is. Of Rikki, Todd says, "She runs a very tight ship."

Director of Public Relations Marilyn Frailey managed to make each visiting press member feel like he was the only journalist in the place and was immensely helpful in setting up interviews with the film-makers present.

Then there was Rutledge Carpenter,

tour of the metropolitan area. Though there are those who might dismiss this junket as a slightly corny publicity stunt, it did serve as an amazingly effective ice-breaker to acquaint the visitors with their hosts and each other, and it afforded them a very nice glimpse of Atlanta's beautiful residential areas.

As for the sizable and slightly jaded Columbia Pictures contingent from Hollywood—they came, they saw and were conquered by the disarmingly sincere warmth and friendliness of the Atlantans.

The Festival was officially opened at nine o'clock that night with the World Premiere screening of "FOOLS' PARADE", held (as were all of the other screenings) in the beautiful Symphony Hall of Atlanta's imposing Memorial Arts Center. The 1800-seat hall was

len met with a group of young film buffs for a most interesting exchange of ideas.

Other seminars were held with Moshe Mizrahi, writer-director of "LES STANCES A' SOPHIE" and Peter Watkins, writer-director of "PUNISHMENT PARK". Technical seminars, having to do with applications of equipment, were conducted by Robert Buescher (Nagra Magnetic Recorders), Anton Wilson (Anton/Bauer), Volker Bahnemann (Arriflex Company of America), Fred Onderka (Bolex) and Eric Falkenberg (Eclair).

As for the 128 films presented during the eight days of public screenings, it can be said that a true film buff could have gotten absolutely high on the provocative images that paraded across the screen. A few attendees were heard

to observe that the overall quality of the shorter films was just a shade below that of last year's crop, but this is largely a matter of personal taste and may also be due to the fact that this year's short films placed greater emphasis on content and less on dazzling technique.

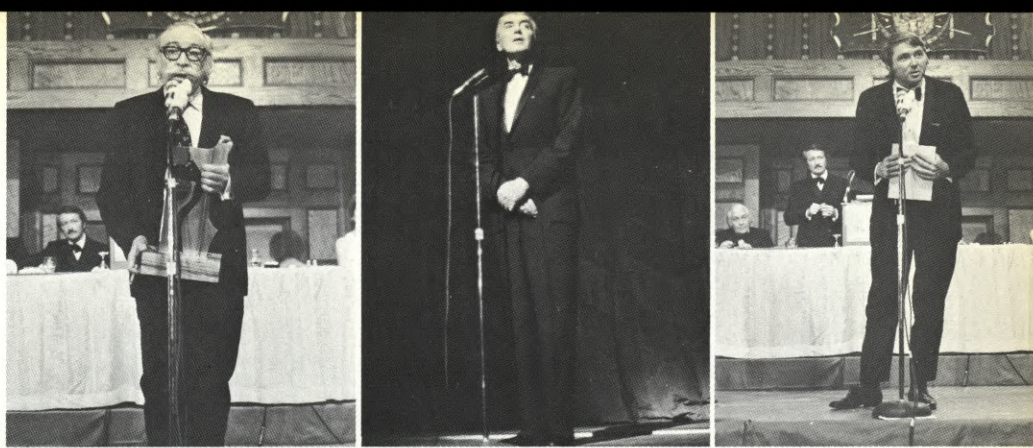
In the feature category, heretofore the weakest link in the Festival, there was general agreement that the pictures shown this year far exceeded (both in technique and content) those screened at Atlanta during past years.

Each year there seems to be one short film that captures the imagination of the audience and becomes a conversation piece early on. Last year it was Summit Films' rollicking paean to dune-bugging, "CATCH THE JOY". This year the film that almost literally took everyone's breath away was Carl Boenish's incredible cinematic love affair with sky-diving, "MASTERS OF THE SKY".

There were so many fine films screened in Atlanta this year that it is patently unfair to single out just a sampling for comment, but a certain few were so superlatively good that it would be equally unfair not to acknowledge them.

One of these is the 51-minute educational documentary, "THE ESKIMO: FIGHT FOR LIFE", produced by Education Development Center, directed and photographed by Robert Young. A film in the Flaherty tradition, but with sound and color to boot, it details the severe existence of the Netsilik Eskimos at a seal hunting camp out on the frozen Arctic Sea near Pelly Bay in Northern Canada. It is fully sync-sound, with the participants speaking their native language and an occasional superimposure of off-screen narration in English to explain what is going on. The film represents an extraordinary technical achievement. With more than half of the action filmed inside the cramped confines of igloos, one wonders how it was possible to light the "sets" and get such a variety of camera angles. One marvels at the excellence of the photography and the clarity of the sound track (obviously original) achieved under such next-to-impossible conditions. But the real miracle has to do with the behavior of the subjects—so completely natural and unselfconscious that it could only have been recorded in some magic way, without a camera having been present at all.

Of the several excellent films on ecology screened during the Festival, the most impressive is the Robert K. Sharpe production of "BEFORE THE MOUNTAIN WAS MOVED". It is a



(LEFT) Dalton Trumbo accepts Golden Dove Peace Award for "JOHNNY GOT HIS GUN". (CENTER) James Stewart, star of "FOOLS' PARADE", was accorded standing ovation by predominantly young audience at film's World Premiere screening. (RIGHT) Claude Jarman, Director of the San Francisco Film Festival, was honored guest at banquet, as was Esmé Dick, Director of the American Film Festival.

meticulous restaging of actual events that occurred in a mountain community ravaged by strip mining. The story is recreated as it happened and was filmed using the actual people reliving their roles. All filming was done in West Virginia in the areas where the events occurred. Technically top-notch, the film carries the ring of truth and the feeling that everything in it is really happening for the first time.

"D.W. GRIFFITH: AN AMERICAN GENIUS", a 60-minute historical documentary produced by WAVE-TV, provides a fascinating portrait of the pioneer director credited with having developed the grammar of film. Despite a painfully inept narration by *LIFE* motion picture critic Richard Schickel (better they should have gotten a real pro to do the job!), the film digs deeply beneath the surface of events to explore the character of the man and to explain how (and why) he emerged out of nowhere to become master of America's only original art form and the most potent medium of communication the world has ever known.

A completely different, but equally effective approach to the analysis of cinematic genius is utilized in "DAVID LEAN: A SELF PORTRAIT". A 55-minute television documentary produced and directed by Thomas Craven for NET, the film employs a very straightforward technique, tracing the great British director's career from "IN WHICH WE SERVE" through to "RYAN'S DAUGHTER", including clips from each of his major motion pictures. What makes the film so special is Lean himself. Shown in a cutting room and speaking directly into camera, he provides the on-screen commentary that links the film clips. Though he avoids all references to his personal life and hews strictly to career data, a well-rounded portrait of the man himself gradually takes form. His remarks are obviously ad-libbed and he speaks with disarming candor, readily admitting that "making films is my entire life." The end result is that he comes through as the very warm and human person that he truly is, instead of as the cold film-making ma-

Continued on Page 810

(LEFT) Jimmy Stewart signs autograph for dotting fan, prior to kick-off train ride around Atlanta. (RIGHT) Strother Martin, in behalf of Columbia Pictures, accepts Silver Phoenix (Best Feature) Award for "FOOLS' PARADE".



ATLANTA FILM FESTIVAL



johnny got his gun

THE GOLDEN PHOENIX
Grand Award, Best of Festival
THE GOLDEN DOVE
Best film contributing to,
or dealing with, World Peace

"JOHNNY GOT HIS GUN", written and directed by Dalton Trumbo, won the Atlanta Film Festival's highest accolade by being awarded the Golden Phoenix (Grand Award, Best of Festival) after its American World Premiere screening at the Festival. It was also voted the Golden Dove Award (Best film contributing to or dealing with World Peace).

The film concerns a young man who goes to war in World War I and, through a freak accident at the front, is rendered

limbless, deaf, dumb and blind. His brain, however, is undamaged and his mind remains as active as ever. The story becomes that of his struggle to communicate.

The action takes place on three levels: his existence in the hospital room after the catastrophe, his memories of his past life, and his fantasies of what life could have been . . . and should be.

Written in 1938, "JOHNNY GOT HIS GUN" was published a year later—just three weeks before the outbreak of World War II. That same year it won the National Book Award.

The motion picture script for "JOHNNY" was written nine years ago. In 1966, Bruce Campbell, now Trumbo's son-in-law, approached him with an offer and they formed an association to produce the picture. They put out of pocket a total of \$100,000 and received \$750,000 more from their investors. With deferments, the budget came to just over \$1,000,000.

For more than 30 years one of Hollywood's top scenarists, Dalton Trumbo, at the age of 56, makes his debut as "the oldest new director in the history of film-making."

Screened for juries at the recent Cannes Film Festival, "JOHNNY GOT HIS GUN" became the first film in the Festival's 25-year history to win three awards. It won the "Jury Prize", the "International Critics Prize" (a unanimous vote by the 17 critics), and the "Protestant Prize", awarded by the World Council of Churches. Screened at Nice University afterward, the film received a 15-minute standing ovation.

THE PRODUCTION By BRUCE CAMPBELL

Producer

"JOHNNY GOT HIS GUN" was filmed on a 42-day schedule in Los Angeles, beginning in July, and was made with an all-IATSE crew. The Director of Photography was Jules Brenner and this was his second feature assignment.

We used the Producers Studio in

"JOHNNY GOT HIS GUN"

SCREENPLAY BY: Dalton Trumbo
DIRECTED BY: Dalton Trumbo
PRODUCED BY: Bruce Campbell
DIRECTOR OF PHOTOGRAPHY:

Jules Brenner
PRODUCTION DESIGNER: Harold Michelson

COSTUME DESIGN: Theadora Van Runkle

SUPERVISING FILM EDITOR:
William Dornisch

EDITOR: Millie Moore

RUNNING TIME: 95 mins.

CAST:

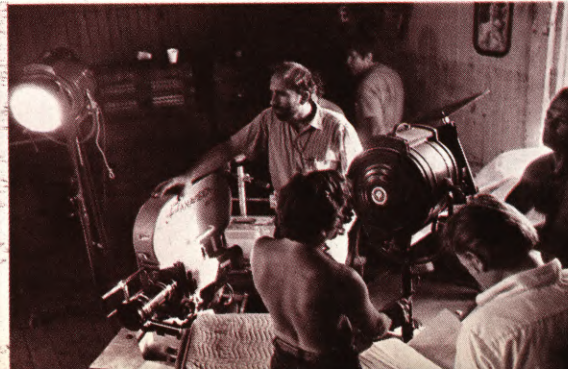
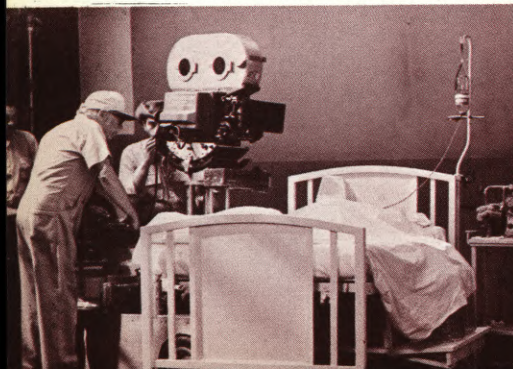
Joe Bonham . . . TIMOTHY BOTTOMS
Karen Burkeman . . . CATHY FIELDS
Joe's Mother MARSHA HUNT
Joe's Father JASON ROBARDS
Christ DONALD SUTHERLAND
Young Nurse DIANE VARS

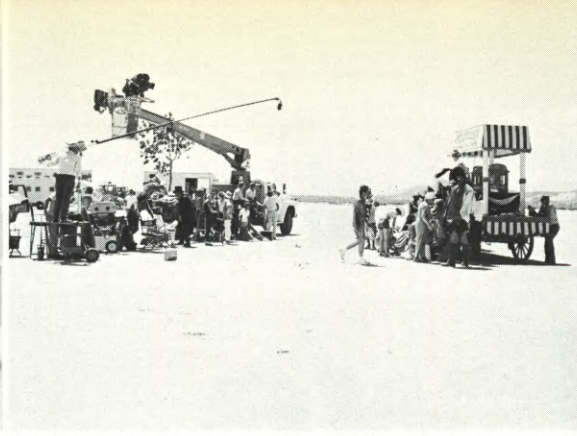
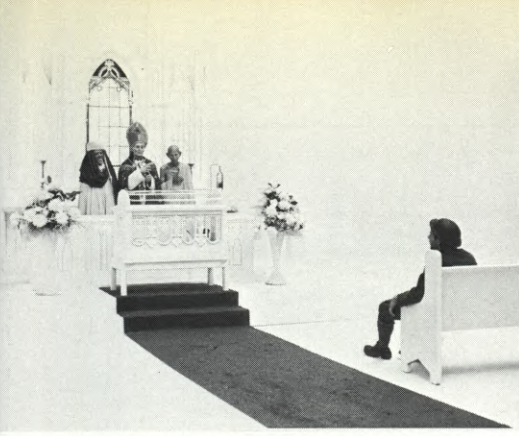
PHOTOGRAPHS BY MELISSA CHAPMAN

Debuting as Director, after more than 30 years as a top Hollywood scenarist, Dalton Trumbo, at 56, describes himself as "the oldest new director in film-making history."



(LEFT) Hospital sequences, photographed in color, but printed in black and white, were filmed at Producers Studio in Hollywood. (CENTER) Shooting of sequence on a small private lake near Lake Tahoe was done with boy actor, cameraman, camera and reflector all in the same boat. (RIGHT) Except for three sequences, the entire film was made in 23 locations in and around Los Angeles, with crew often shooting in extremely close quarters. Despite these limitations, film has a uniformly high-style look of smooth professionalism.





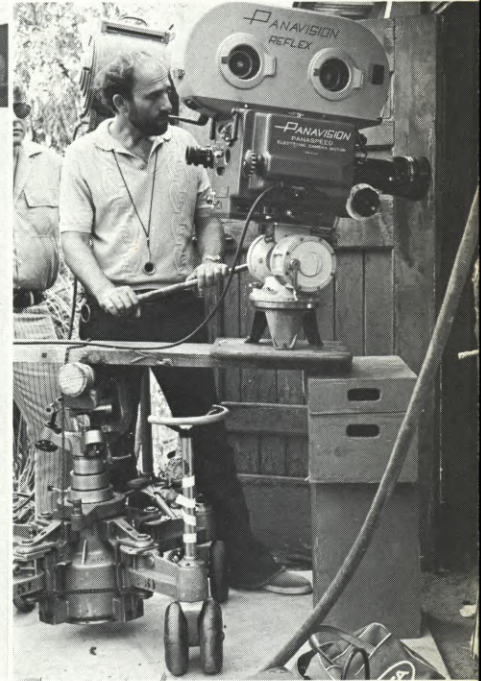
(LEFT) Some of the fantasy scenes were photographed in high-key against an all-white background. (CENTER) A different kind of "limbo" was achieved by shooting against the blazing white of El Mirage Dry Lake. (RIGHT) In a desperate fantasy sequence, the picture's teenage protagonist, rendered limbless, sightless, deaf and mute in World War I action, visualizes himself making his own way in the world as a carnival freak.

Hollywood to shoot the hospital room scenes and two other sequences. Everything else was filmed on 23 locations in and around Los Angeles. We shot the battlefield sequence in Chatsworth on a proposed P.G. & E. damsite. The death scene of the father (played by Jason Robards) was filmed in the same house where Dalton's father died. Both the book and the screenplay are largely autobiographical. Dalton worked in a bakery for eight years, just as the boy in the film does. He got a call one day telling him that his father had just died, and he went home. That house still exists on 55th Street in Los Angeles. Dalton walked up that path, walked up those stairs and walked into that room. We shot the sequence in the very bedroom where his father died some 40 years ago.

The bakery sequences were filmed in an abandoned Tootsie Roll factory in Culver City. El Mirage Dry Lake was used as a location site for the carnival sequence. A small private lake near Lake Tahoe was the location chosen for the mountain lake sequence and other scenes.

We tested more than 100 actors for the lead role, but finally elected to give the part to Timothy Bottoms, an 18-year-old boy who had just graduated from high school in Santa Barbara and had never acted professionally.

Dalton had never directed a picture before, although he's been on sets most of his life. John Frankenheimer had him



(LEFT) Panavision Silent Reflex camera, mounted on Chapman crane, soars above white cyclorama for shooting of limbo sequence. (RIGHT) Using Elemack dolly and three "apple boxes" to support Panavision camera, Director of Photography Jules Brenner prepares to shoot location sequence inside a small shed.

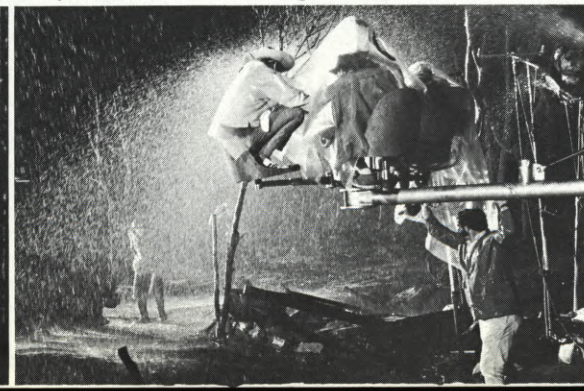
on the set every day during the filming of "THE FIXER" in Budapest. But it's one thing to observe and another to do it.

All of the people working on the picture held a very reverent attitude toward the subject matter and were very dedicated. This is something you very rarely encounter.

The below-the-line elements of production were facilitated by International Producers Service. They helped us put the crew together, find the locations and handle the thousand and one details having to do with arranging for props, costumes, transportation, etc.

We had to jump into production
Continued on Page 814

(LEFT) Another kind of fantasy sequence was shot night-for-night in outdoor garden set designed by Production Designer Harold Michelson. The velvet-black night served as a kind of limbo, with accents of green and blue light. (CENTER) With the camera on Chapman boom and shielded by plastic sheet, rain machines are used to create night storm sequence. (RIGHT) Donald Sutherland, playing symbolic Christ figure, rides in the cab of a locomotive. His tight schedule, with only two days free between other assignments, forced early start of production.



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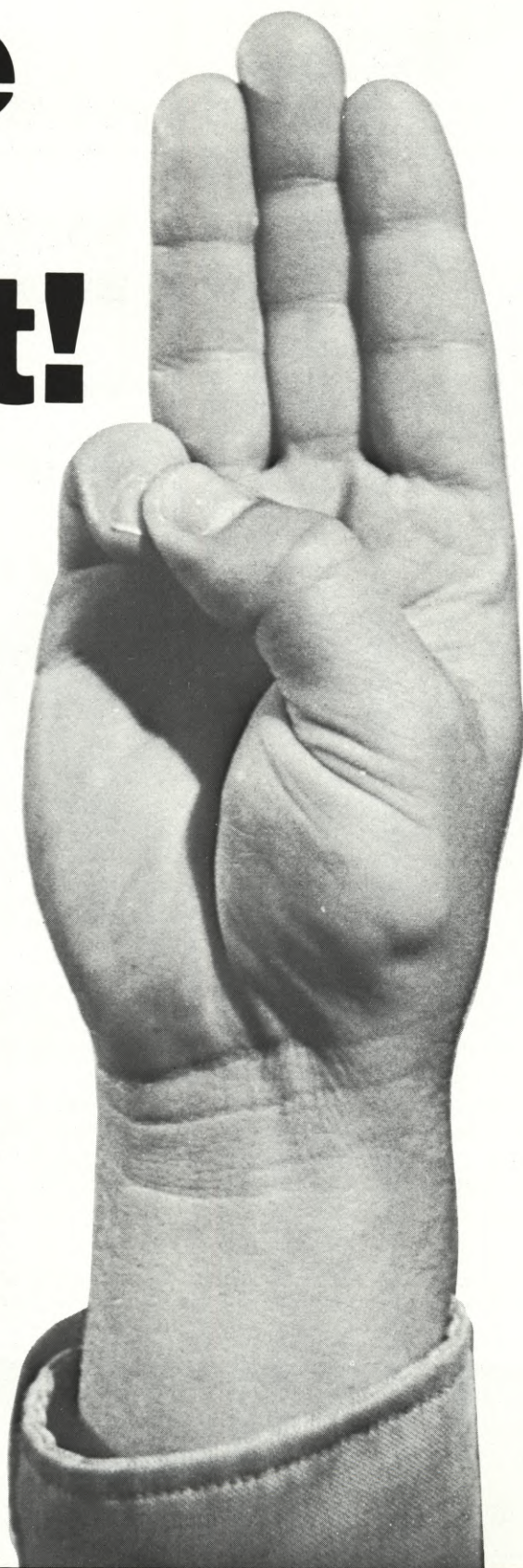
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AWARDS OF THE FOURTH ANNUAL ATLANTA INTERNATIONAL FILM FESTIVAL

Golden Phoenix
Best of Festival
"JOHNNY GOT HIS GUN"
 Robert Rich Productions
 Dalton Trumbo, Writer & Director
 Bruce Campbell, Producer

Silver Phoenix
Best Feature Film
"FOOLS' PARADE"
 Columbia Pictures

Silver Phoenix
Best Documentary
"MASTERS OF THE SKY"
 Photo-chuting, Incorporated

Silver Phoenix
Best Short Subject
"REPLAY"
 Concepts, Unlimited

Silver Phoenix
Best Experimental Film
"BIRTH OF APHRODITE"
 Leland Auslander Productions

Silver Phoenix
Best TV Commercial
"LOVE"
 MPO Productions

Golden Dove
Best Film Contributing to World Peace
"JOHNNY GOT HIS GUN"
 Robert Rich Productions
 Dalton Trumbo, Writer & Director
 Bruce Campbell, Producer

Ionosphere Award
Best Film Dealing with Flight
"HOOK DOWN, WHEELS DOWN"
 Dept. of the Navy, Chinfo Film Unit

Tara Award
Best Southern Production
"THE WINDSPLITTER"
 Pop Films

Forward Atlanta Award
Best Atlanta Production
"DIMENSIONS IN BLACK"
 WQXI-TV

Gold Medal
Best Animated Film
"THE POINT"
 Murakami Wolf Productions, Inc.
 Los Angeles, California

Gold Medal
Best Documentary Feature
"A MATTER OF FAT"
 National Film Board of Canada
 Montreal, Quebec, Canada

Gold Medal
Best Foreign Film
"MARKETTA LAZAROVA"
 Medion of San Francisco
 San Francisco, California

Gold Medal
Best Screenplay
"LES STANCES A SOPHIE"
 Moshe Mizrahi
 Paris, France

Gold Medal
Best Musical Score
"SHORT WAY 'ROUND"
 Mascott Productions
 Los Angeles, California

Gold Medal
Best Editing
"AMERICAN FREAK ILLUMINATION"
 Pop Films
 Houston, Texas

Gold Medal
Best Director
"PUNISHMENT PARK"
 Francoise Films
 Peter Watkins

Gold Medal
Special Jury Award
"FIRST CLASS"
 Chester Fox & Co., Inc.
 New York, New York

Gold Medal
Special Jury Award
"SPEND IT ALL"
 Grove Press
 New York, New York

Gold Medal
Special Jury Award
"HARMONY OF NATURE AND MAN"
 King Screen Productions
 Seattle, Washington
 Roger Tierney Associates, Inc.
 Los Angeles, California

Gold Medal
Special Jury Award
"FREDERICK"
 Leo Lionni & Giulio Gianini
 Connecticut Films, Inc.
 Westport, Connecticut

Gold Medal
Special Jury Award
"OF MEN AND DEMONS"
 IBM Corporation
 New York, New York

Gold Medal
Special Jury Award
"ENVIRONMENT"
 Goldeneye, Inc.
 New York, New York

Gold Medal
Special Jury Award
"BEFORE THE MOUNTAIN WAS MOVED"
 Robert K. Sharpe Productions, Inc.
 Ardsley, New York

Gold Medal
Special Jury Award
"SOLEDAD"
 KCET-TV
 Community Television of Southern California
 Los Angeles, California

Gold Medal
Special Jury Award
"OUT OF SIGHT"
 Goldsholl Associates
 Northfield, Illinois

Gold Medal
Special Jury Award
"THE HAUNTED HOUSE"
 Moreland-Latchford, Ltd.
 Toronto, Ontario, Canada

Gold Medal
Special Jury Award
"ASHIANA"
 Diane Baker Productions
 Los Angeles, California

Gold Medal
Special Jury Award
"POZZATTI"
 Indiana University Radio and Television Service—Special Projects/WTIU
 Bloomington, Indiana

Gold Medal
Special Jury Award
"THEY'VE KILLED PRESIDENT LINCOLN!"
 Wolper Productions, Inc.
 Los Angeles, California

Gold Medal
Special Jury Award
"THE QUARRY"
 Arzt Productions, Inc.
 New York, New York

Gold Medal
Special Jury Award
"THE SHOOTING GALLERY"
 SIM Productions, Inc.
 Weston, Connecticut

Gold Medal
Special Jury Award
"NETWORK"
 American Telephone & Telegraph Co.
 New York, New York

Gold Medal
Special Jury Award
"MISSION: BABORIGAME"
 WFAA-TV
 Dallas, Texas

Gold Medal
Special Jury Award
"SAD SONG OF YELLOW SKIN"
 National Film Board of Canada
 Montreal, Quebec, Canada

Gold Medal
Special Jury Award
"THE VOICE OF LA RAZA"
 William Greaves Productions, Inc.
 New York, New York

Gold Medal
Special Jury Award
"DAVID LEAN: A SELF PORTRAIT"
 Thomas Craven
 Pyramid Films
 Santa Monica, California

Gold Medal
Special Jury Award
"FARALLON LIGHT"
 Charles E. Peterson
 San Francisco, California

Gold Medal
Best Student Film
"THE KEYMAKER"
 University of Southern California
 Los Angeles, California

Silver Medal
Student Film
"DEVIL'S BARGAIN"
 American Film Institute
 Beverly Hills, California

Bronze Medal
Student Film
"DEJA-VU"
 Jan N. Freis
 Santa Monica, California

Gold Medal
Short Subject—Live Action
"THE SWAN SONG"
 Cinerep Productions, Inc.
 Houston, Texas

Gold Medal
Short Subject—Animation
"THE FURTHER ADVENTURES OF UNCLE SAM"
 Mitchell & Case Productions/Haboush Co.
 Hollywood, California

Gold Medal
Short Subject—Mixed Media
"REPLAY"
 Concepts Unlimited
 New York, New York

Gold Medal
Lead-Ins & Trailers—Live Action
"THE ANGEL LEVINE"
 Elinor Bunin Productions, Inc.
 New York, New York

Gold Medal
Lead-Ins & Trailers—Animation
"THE GREAT AMERICAN DREAM MACHINE"
 Elinor Bunin Productions, Inc.
 New York, New York

Gold Medal
Children's Films
"A KITE STORY"
 Churchill Films
 Los Angeles, California

Gold Medal
Corporate Image
"OLYMPIA"
 Robert Charlton & Wes Taft Productions
 Berkeley, California

Gold Medal
Earth Sciences
"ECOLOGY: CHECKS AND BALANCES"
 The Peterson Company
 Pyramid Films
 Santa Monica, California

Gold Medal
Ecology & Conservation
"ALL THE DIFFERENCE"
 Eastman Kodak Company
 Rochester, New York

Gold Medal
Educational
"THE WEIRD NUMBER"
 Xerox Films
 Ann Arbor, Michigan

Gold Medal
Fashion
"HERE COME THE 70'S: FASHION"
 CTV Television Network Ltd.
 Toronto, Ontario, Canada

Gold Medal
Flight
"ICARUS MONTGOLFIER WRIGHT"
 Format Films
 Pyramid Films
 Santa Monica, California

Gold Medal
Fund Raising
"IMAGES"
 Monroe-Williams Productions
 Miami, Florida

Gold Medal
Graphic & Cultural
"THE BIRCH CANOE BUILDER"
 Southern Illinois University
 Carbondale, Illinois

Gold Medal
History
"GUADALCANAL: ISLAND OF DEATH"
 WKYC-TV
 Cleveland, Ohio

Gold Medal
Industry & Business
"LIGHT, STRONG AND BEAUTIFUL"
 Kaiser Aluminum & Chemical Corp.
 Oakland, California

Gold Medal
In House
"BUYING DAY"
 J. Walter Thompson Co.
 Chicago, Illinois

Gold Medal
Medical & Health
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Bob Kurtz Productions
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Continued on Page 784

"THE WINDSPLITTER"

GOLDEN TARA AWARD

Best film by a Southern U.S.A. Producer

By JULIUS D. FEIGELSON

Original Screenplay-Director

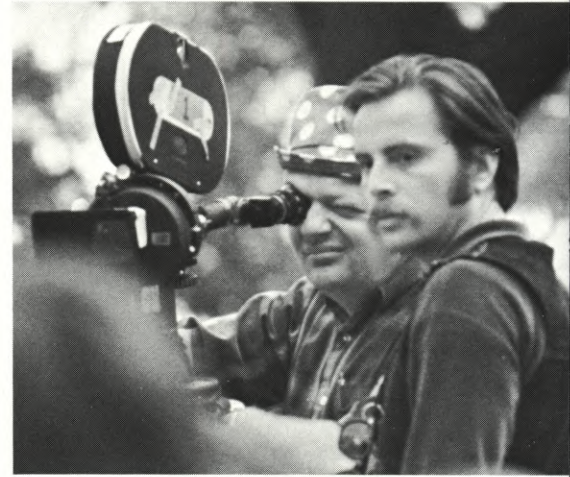
It was after the Atlanta Film Festival of last year that it was decided that we would do a full-blown theatrical motion picture. David Ford, who would be the producer of this film, had gone to the festival with me, and it was during that time that serious plans were made to launch the project.

After my featurette "ONE OF THE MISSING" had won a special jury award, Dave Ford felt that I was ready to handle a feature. Actually we had talked about a story idea I had had in March of last year, but the project really began to roll after Atlanta. Dave's company, Pop Films, would produce "THE WINDSPLITTER" and my company, Feigelson, Giertz, & Hall would furnish production facilities.

Dave Ford located enough front money to begin the project, so with a story idea we went to Hollywood to look at talent for the three leading roles.

We talked with many actors, but it was not until a script was finished that we would be able to sign the people we wanted. I spent the month of August locked in my apartment setting down on paper what would be filmed two months later.

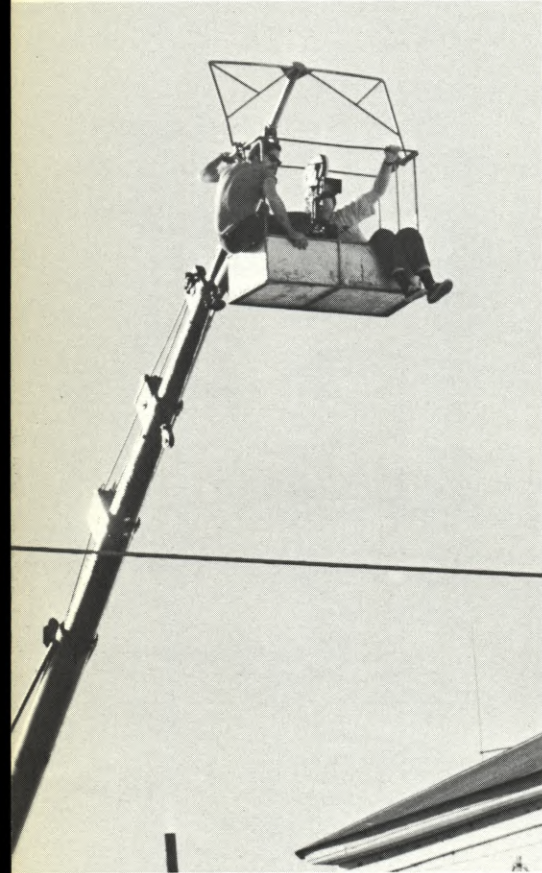
The title of the film would be "THE WINDSPLITTER". Briefly, it is the story of a young man who leaves his East Texas home town and, after ram-



Cinematographer Kaplan and Writer-director Feigelson line up a shot. The entire feature was photographed with two Arriflex cameras, one blimped.

bling, ends up in Hollywood with the intention of breaking into film acting. By a stroke of luck he gets into a film that turns out to be a sleeper, and is rocketed to stardom. Now that he has achieved fame in the movies, the city fathers of his small home town invite him to return for a week in his honor to be culminated by the crowning of the high school homecoming queen, and his addressing the student assembly.

This is where the film actually begins, with the city fathers waiting on the



Director J.D. Feigelson and Director of Photography Fred Kaplan shooting from a sign-erecting crane pressed into service as a camera boom on location.

(LEFT) Preparing to shoot a scene of town dignitaries in front of the Columbus, Texas courthouse. The entire film was shot on location in the town, with full cooperation of the local people. (RIGHT) Crowds of townspeople served as extras for several scenes in the picture. They were somewhat used to film companies, since the Steve McQueen feature, "BABY THE RAIN MUST FALL" had previously located in the town.





(LEFT) A convertible with the top down served as a camera car for running shots of the motorcycle chase and proved to be more adaptable than the real thing because it could corner more easily with the bikes. (RIGHT) Quartz lights were used to illuminate room for sequence in which local minister faces the town council. (BELOW RIGHT) Editor Lars Giertz co-ordinates 16mm-35mm editing of the footage.

outskirts of town for the actor. When he does arrive they are thunderstruck, because he has long hair, outlandish clothes, and is riding a chopper motorcycle. This man who returns is not at all what they had expected, or wanted, since he represents all the things of the outside world that they fear. So now that they have invited him they set out to get rid of him.

Dave Ford enlisted the services of two investment firms to put together the money for the film. Then he and I went back to Hollywood with the script to sign the principals in the cast. Jim McMullan was signed for the lead, Joyce Taylor was contracted to play the female lead, and Paul Lambert was signed to play the "heavy" role, that of the preacher.

While in Hollywood I introduced Dave Ford to cameraman Fred Kaplan. I had worked with Fred at Wolper Productions and, knowing his work, felt he should shoot "THE WINDSPLITTER". After Fred was signed we headed back to Houston to complete our pre-production work. The rest of the crew and the supporting cast were from the Houston

area, and they were as "pro" as can be found anywhere.

During the early phases of the pre-production period Dave had gone to Columbus, Texas to talk to the town council about our coming to shoot the picture. There were several reasons for choosing Columbus. First of all, the town physically fit our story, since all the settings we would need were there. Second, Dave had known some of the influential townspeople who could help us in production. Third, it is the town where scenes for "BABY THE RAIN MUST FALL" were shot some years before, and the people of the town were not unfamiliar with what would happen when a film crew moved in.

Having received the O.K. of the town fathers, we selected the locations that we would need. We also contacted the electric power company there, and made arrangements for power drops for our lights. Here is where we ran into trouble. One of the locations that we chose was in an area of town that did not have enough power for our equipment, so we searched for and located a



Continued on Page 806

(LEFT) With camera on Elemack dolly, a shot is lined up in a service station of starring actor Jim McMullan (RIGHT) Camera, with cinematographer and assistant is mounted in hoist of a 130-foot sign-erecting crane which was used as a camera boom. The effect was very smooth on the screen.



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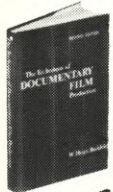
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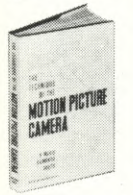
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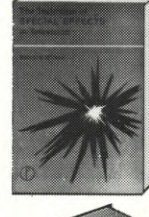
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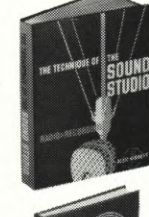
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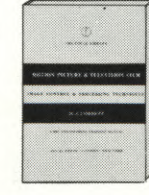
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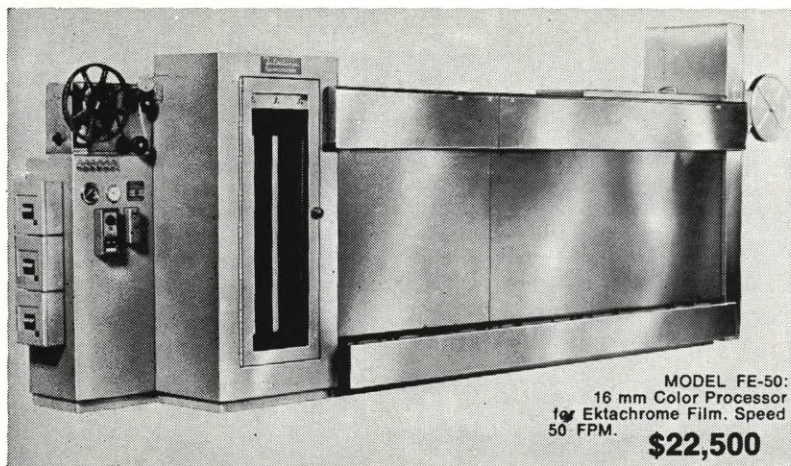
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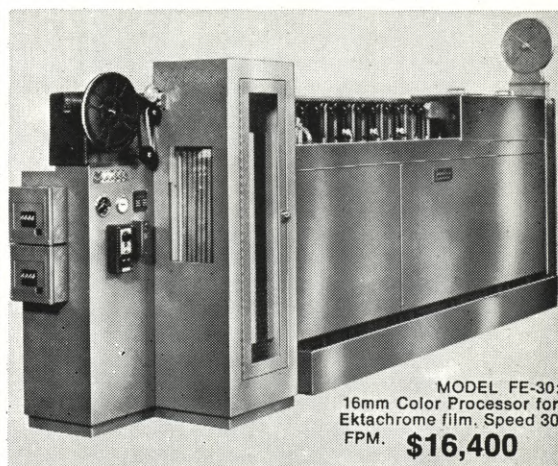
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(LEFT) The author, Carl Boenish, shown in free-fall, using a 35mm helmet-mounted camera, with "Newton Ring Sight". Photograph by R. Cottingham. (RIGHT) The last skydiver flies in to complete an 18-man "star", similar to 16-man star that climaxes "MASTERS OF THE SKY". World record is now a 20-man star that forms completely in 55 seconds.

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Producer/Director/Cameraman/Editor

DOCUMENTING THE FILM

Preparation for documenting MASTERS OF THE SKY—a statement of mankind's prowess in skydiving today—began nine years ago when I made my first jump. It wasn't until one year and 100 jumps later that I started doing free-fall photography. Today I have made nearly 1,000 camera jumps (out of a total of 1,200 jumps) carrying as many as three cameras mounted on my helmet, while free-falling at 120-180 mph. Cumulatively, that amounts to

nearly 14 hours of free-fall time and more than 50 hours of riding underneath an open parachute. About 200 camera jumps were made specifically to document MASTERS OF THE SKY.

A tremendous amount of experience was gained and technique learned in organizing and filming the free-fall portion of MGM's THE GYPSY MOTHS, starring Burt Lancaster, Deborah Kerr, Gene Hackman, Scott Wilson, and directed by John Frankenheimer. I made more than 250 free-fall jumps while filming 35mm motion pictures in order

to obtain the necessary cuts Frankenheimer needed to portray his aerial visions of the various skydiving stunts we worked out. I feel the greatest foresight that John Frankenheimer had in directing the skydiving sequences was to abandon the classical idea of filming the free-fall in slow motion (32, 48, 64 fps) in favor of shooting all the skydiving at normal speed (24 fps). (Slow motion free-fall photography hitherto was invariably employed to minimize camera and subject-matter movement, and to maximize the screen time-to-

(LEFT) A nine-man star formed of skydivers with colored smoke bombs attached to their feet, similar to the exciting scene that kicks off "MASTERS OF THE SKY". (RIGHT) A "Bat-man" maneuver, with smoke bombs, as staged for John Frankenheimer's MGM production, "THE GYPSY MOTHS". Boenish credits Frankenheimer for showing skydiving filmed at the normal 24 fps rate for the first time in this picture. Photograph by J. Gifford.



labor ratio.) Shooting at normal speed sometimes required a whole day and several jumps just to net five seconds of screen time. But this resulted in a greater degree of action on the screen and a higher and more realistic sense of skydiving for the viewer. About four months were spent on location in Kansas jumping every day, sometimes in upper winds of up to 80 mph and ground winds of up to 22 mph.

Immediately after finishing work on *THE GYPSY MOTHS* I knew that there was still the need for people-at-large to know more about the true freedom mankind now enjoys through skydiving. MGM's film accurately portrayed the lives and stunts of three barnstorming daredevils, but it said nothing about the joy and accomplishment to be experienced in mass skydiving today—the "unknown playground in the sky." Because of the unique experience and knowledge that I had been privileged to gain, I felt inwardly compelled to continue my marathon of free-fall photography until people-at-large could at least be exposed to the real joy of jumping today. Hence, the conception of *MASTERS OF THE SKY*.

As a bit of background, it should be mentioned that in the 1920's, man at best could only tumble out of control in free-fall; in the 1930's, he learned how to fall in a stable attitude, face-to-earth. In 1958, two jumpers successfully passed a baton while free-falling at 120 mph, similar to two spacecraft rendezvousing in space. In 1967, man's expanding universe was increased to include a 10-man star (stable circular linkup). Today, the world's record is a 20-man star, taking the same 55 seconds to form that the first 10-man formation required. But how many people know that skydiving is fun and easy? How many know that people skydive today from ages 16-68, from literally all walks of life, and for the joy, happiness, and fulfillment that it brings, and not out of necessity or fear?

FILM TEMPO

MASTERS OF THE SKY was shot entirely at normal speed (24 fps). More than three years were spent in collecting the free-fall footage and assembling it into a precisely edited form. There are more than 300 cuts in 500 feet of 16mm film, making the average scene about 30 inches in length. The shooting ratio was approximately 30-to-1. Some of the scenes were filmed in 35mm, which had to be reduced to 16mm in order to be compatible with the bulk of the film. Michael Lloyd wrote and pre-recorded the original score for the

picture in less than one month, and it turned out to be superbly appropriate to the feeling of "freedom" that the film strives to convey.

The tempo of the entire film is "hard-driving." It wasn't meant to be that way throughout, but it seemed to turn out that way as the film unfolded. Because of the seeming constancy of the fast pace, relief and contrast were difficult to attain. Of the 200-plus scene changes, about 90% fall precisely on music beats. Realizing this technically turned out to be a real exercise in film-making.

Michael Lloyd recorded all the music on 8-track, 1" tape. We made several ¼" 15 ips "down-dubs" of the original theme song, and I used the vocal "regular version" to open the film. We made a down-dub of the "track only" which played well in a middle section of the film, and the use of this version lent unconscious musical continuity to the whole of the film, since it wasn't obvious that this was taken from the theme song. The film concludes with a "grand finale" version of the theme song with an accent on the string section. Three other sections of the film dealing with snow jumping, riding the "sky tow," and the water jump had their own respective types of music.

INVERSE CLICK TRACK

The concept of cutting the entire picture precisely to the beat of the music was achieved in the following fashion: First, the rough cut of the picture was established. Then, the music for that section of the film was played in arbitrary sync to the picture to see if there existed simultaneously any natural "high interest areas" of both picture

and music. The music track was then shifted forward or backward to match up high-interest areas as much as possible, in order to establish a "starting point" of picture and track sync. Recutting the rough-edited picture then proceeded from the center (starting point) outward to either end. Sometimes it was necessary to refer to the original film to see if certain scenes could be stretched a few frames (without disturbing the artistic flow of the initial editing) in order to extend to the next beat of music. In other cases, scenes were trimmed shorter to hit the preceding music beats.

In several sections of the film, for the already-established rough edit, the music of that section was either too long or too short. Since the picture portion could only be expanded or contracted to a slight degree, so as not to change its visual content, it was necessary either to expand or contract the length of the *music*. This was accomplished by making two ¼" master copies of the original ¼" down-dub and then either adding or deleting selected measures to come up with a ¼" edited copy of the music which would run the approximate length of the rough edit. Now the music was close enough to being the correct length of the rough picture so that 90% of all the scene changes could be forced to fall precisely on music changes with only minor recutting of the picture required.

PRECISE SYNCHRONIZATION

The concept of precisely cutting the picture to fit the pulse of the music required the synchronization to be held to within one frame throughout the
Continued on Page 805

One of the most exciting sequences in "MASTERS OF THE SKY" is that in which a parachutist intentionally jumps into a clump of trees. It was filmed, as shown in this frame blow-up, by means of a gun-camera positioned in the chute rigging and pointing straight downward.



"LES STANCES A' SOPHIE"

GOLD MEDAL—Best Screenplay

By MOSHE MIZRAHI

Co-writer/Director

The shooting time for this film was about seven weeks, and it was made entirely on location, including the interiors. I like to do this whenever possible and I feel that it's *always* possible—unless you're doing a period film.

I also believe in using whatever available light exists, even indoors, because it has a special character that you can't duplicate with artificial lighting. I would say that lighting is the main mood element in a scene and I always try to

visualize, when writing a script, what time of day each particular scene would take place—and I try also to *shoot* the scene at that time of day. Even if it's a night interior, I would try to shoot it at night (although that's sometimes uneconomical), because I have discovered, for example, that actors don't speak the same way at night as they do in the daytime. There is a quality to their voices that is different.

It is these small things, I think, that achieve that special *ambiance* that you

want to produce in a film. The general audience is not interested in the technical aspects of how you do a particular thing, but subconsciously they are affected by such things as the quality of lighting and sound.

There were times in this picture that interiors were filmed without the use of a single lamp. In the final sequence, for example, when the couple are shown in their bedroom, the only illumination was the available light coming through a
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"AN AMERICAN FREAK ILLUMINATION"

GOLD MEDAL—Best Editing

By RONALD PERRYMAN

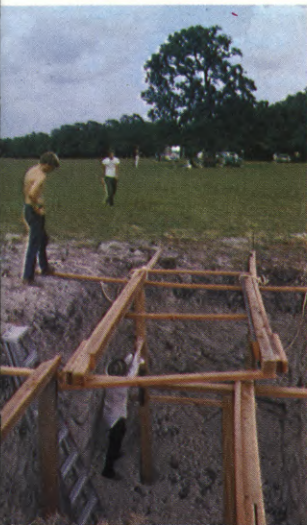
In March, 1970, Tobe Hooper was offered creative control of a low-budget feature film to be produced in Austin, Texas by David Ford, concerning a young modern couple living in this combination state capital and college town. The result, dubbed "AN AMERICAN FREAK ILLUMINATION", won a Gold Medal in the feature category at the recent Atlanta Film Festival.

The worlds explored were those of the young people living in a white frame two-story house on F Street: David and Amy first; then a second couple, Toz and Mahlon, who became involved as filming progressed, and a third fellow who never speaks. As Tobe worked with this group and grew to know them, they either stayed realistic on film, or they began to take on qualities of the fantas-

tic; how much depending partially on the response of the subject to the filmmaking process, and partially on Tobe's response to the person involved.

The film was shot in 16mm primarily for budget reasons, but secondarily because of the versatility of 16mm equipment. An Eclair NPR was used for all of the sync scenes, but the fantasies were

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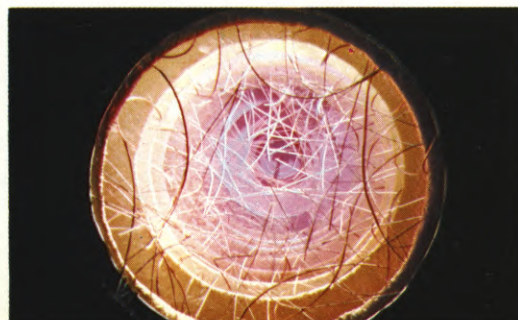


(LEFT) Breakaway platform is built over hole measuring 10' x 20' x 10½' in preparation for sequence to show car being blown up. Fourteen sticks of dynamite and 100 feet of primer cord were placed on the structure. (CENTER) Psychedelically painted car is driven onto platform. Placed in hole were 80 sticks of dynamite, 50 gallons of gasoline and 20 gallons of napalm, with nearly 1000 feet of primer cord laid out in large semi-circle. (RIGHT) Resultant explosion is biggest bang since Hiroshima.

(LEFT) Paper airplane, guided by monofilament line, strikes house and falls in a mass of flaming wreckage near startled crash-pad resident. (CENTER) Writer/director/cameraman/editor Tobe Hooper prepares to shoot scene for clever swordfight sequence in which "swordsmen" are his own opponent. (RIGHT) About 1000 vari-colored, helium-filled balloons were anchored with fine black thread for romantic fantasy sequence in forest.



(LEFT) Hooper prepares to shoot animation sequence of "eye in the wall". (CENTER) View of "organic" hole in ceiling of the basement set, about four feet in diameter, through which startled actor is vacuumed, dissolved and re-projected through eye in the wall. (RIGHT) Side view of construction of tube on top of basement set, representing innards of organic hole. Flats were sprayed with polyurethane and attached to a nine-foot tower above set.



"PUNISHMENT PARK"

GOLD MEDAL—Best Direction

The particular approach used in the filming of "PUNISHMENT PARK" is a concept which has evolved over the more than ten years during which I have been making films. It actually began with an amateur film, made in England, in which I reconstructed the 1956 Hungarian uprising—an attempt to capture the atmosphere of photographs of the actual event that had appeared in *LIFE* and *PARIS MATCH*. That same concept became much more fully developed in later pictures, like "THE WAR GAME".

It's not a mechanical technique, but an abstract process of trying to get people to respond to certain situations, whether you prepare that response (rehearse it, in a sense) or let it come out in a completely improvised, spontaneous way.

My earlier films were not as free-wheeling as this one. I worked somewhat more mechanically in the hope of achieving a newsreel quality—even to the point of banging the camera at a certain moment, or having the cameraman pull the picture out of focus for an instant. The process involves building up a tapestry of things that create the feeling of a spontaneous recording on film of something that is happening. It's a technique learned from newsreels and it's not at all easy to do. It has a very high failure ratio.

The simplest way to describe how we made "PUNISHMENT PARK" is to say that we had a camera and sound recorder available and knew approximately what was going to happen. Sometimes I would run through a situation as a rehearsal, but usually I didn't. We would simply discuss it.

Although there were a few amateur actors in the cast, about 98% of the people had never been in a film before. It was not too difficult for them to get with it, because I simply had them playing themselves. What makes them convincing is not the fact that they may have convictions about certain things. It's the unique desire most people have to express themselves—something they rarely get a chance to do.

In filming the action, I would usually repeat things two or three times, even when I felt that something had worked. I have learned from bitter experience that a long scene takes on a second, totally different set of dynamics when it is intercut with other material. That is why I like to have a variance of spontaneity, and why I make quite a few takes on most scenes.

In the tribunal sequences, there is constant give and take, sometimes very rapid, between the tribunal members and the defendants. I've been asked how we were able to get full coverage and inter-cut the way we did while using only one camera. The use of a single camera was partly an act of economy, but even if we'd had sufficient budget, I'm sure I would not have used two cameras. If you use two cameras, in my opinion, you are immediately creating a circumstance that doesn't exist in most newsreel situations. The audience is used to having newsreel cameramen pan over and pull focus in order to cover a situation that is happening in two different areas.

However, because our confrontations were so long, I knew that this device would become tedious rather quickly.

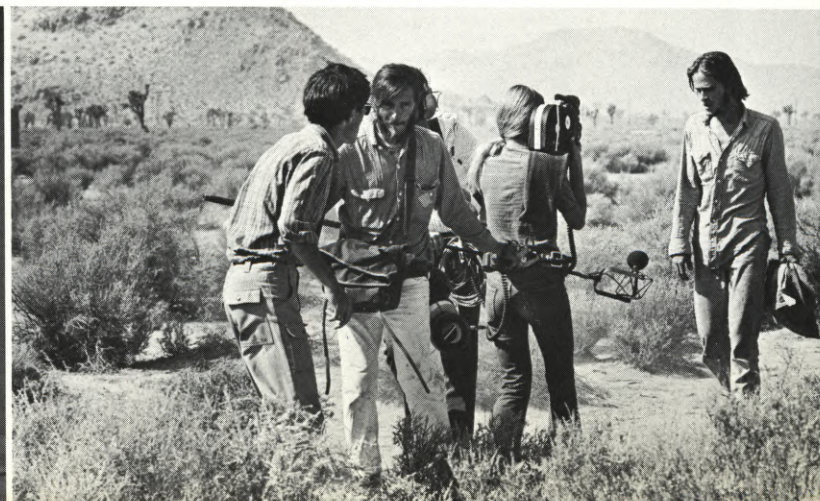
So I decided to take the chance of running these ad lib sequences through twice or more, with the camera on a different subject each time, hoping that I would get sufficient coverage to pick up a question in one take and the direct answer in another. This was very risky because, even though I tried to keep the participants on the track in regard to certain key questions, within a minute the whole thing would be out of control. We'd just have to hang onto our seats and take it as it came.

Obviously, working in this way consumed a great deal of footage. Out of the approximately 58,000 feet of 16mm film used on the entire picture, something like 20,000 feet were shot during the tribunal sequences. These scenes were filmed in three days out of our total filming time of two and a half weeks.

All of the shooting was done in the California desert near George Air Force Base. Even the "interiors" inside the tent where the tribunal holds forth, were shot there. At first we tried using a small circus tent, open at both ends—but something was wrong; the scenes just weren't working. I decided that the tent was too big and too open. There was too much outside intrusion and it was not claustrophobic enough. We hastily set up a much smaller tent, closed on all sides, inside the bigger one. Now the tribunal interrogators were crouched around each defendant, very close, and the scenes worked fine.

Our "camerawoman", Joan Churchill, is a highly experienced technician who came out of the UCLA film school in about 1966. She had worked entirely

(LEFT) In Orwellian drama, defendants accused of political crimes are tried by a tribunal of their peers. Set was "tent-within-a-tent", rigged on desert location. The author (seated foreground) gives direction, while "camerawoman" Joan Churchill kneels to film low-angle shot of Carmen Argenziano, playing one of the defendants. (RIGHT) Director Watkins confers with 2nd cameraman/assistant Peter Smokler, while Miss Churchill frames closeup of Brian Hart.





(LEFT) Convicted prisoners, given a choice between long prison terms and a desert survival ordeal, run from law officers pursuing them—while intrepid camera and sound crews dog-trot hard on their heels. (CENTER) Preparation for filming inside shell of an abandoned desert shack. (RIGHT) In final sequence, law officers (played, for the most part by real-life police and security guards) prepare to intercept surviving prisoners approaching their goal.

on documentaries, including "GIMME SHELTER", but had never photographed a feature before. I had always thought that the only sort of person who could handle an Eclair camera with sufficient ease would have to be a male human being with very broad shoulders and light "ballet" feet, because two of the top BBC cameramen with whom I worked had been built that way. But Joan, who is pencil-slender, handles the camera in just the same way. We filmed a group of interview scenes on the run across a rock-covered stretch of sand (with the camera tied to a Nagra recorder because we didn't have crystal-sync) and the footage she got, while dancing in and out of bushes, was extraordinary.

Another outstanding technician was our sound recordist, Michael Moore. Inside the tent he had an assistant on the boom, but he also had at least eight other open mikes, in front of the tribunal members and defendants, and he mixed them all himself, while re-

maining totally unaware of what was going to happen next. There were only about two rises or dips that you could hear. All of the dialogue in the picture is original sound—everything. None of it is looped.

I don't usually cut my own pictures, though I work very closely with the editor. However, in this case there were so many complex permutations that I felt I was probably the only person who could understand the infinite number of combinations presented. I was a cutter for three years, but I hadn't cut a film in over eight years. I started cutting this enormous amount of film in March, but by November I realized that it was getting to be too much for me. It was taking too much time and I needed somebody who could be working on other sections simultaneously. I was lucky enough to find Terry Hodel, and we worked together on the last half of the picture—but it was still very complex and very difficult.

Adrian Mosser is now in the process of blowing the picture up to 35mm, and the blow-up is so good that it's almost, in a sense, better than the original, which is an extraordinary thing to consider. Obviously, a great deal of the

quality is due to what Mosser is doing, but it's also a tribute to what Joan Churchill put into the original.

As far as shooting in 35mm is concerned, I made two pictures in 35mm, "PRIVILEGE" and "THE GLADIATORS" (which was filmed in Sweden), and I can say absolutely that I shall never work in 35mm again. I've found a freedom in 16mm that's fantastic. The 35mm equipment is so cumbersome, so restricting, that it's mind-boggling. On "PRIVILEGE" I was given what they called a "medium-sized crew"—70 people—and it was monstrous. On "PUNISHMENT PARK" we hardly had eight people most of the time. Our producer, Susan Martin, organized everything, lock, stock and barrel. She did the job of what would be, in Hollywood, that of a whole team of perspiring people—all running around on enormous salaries.

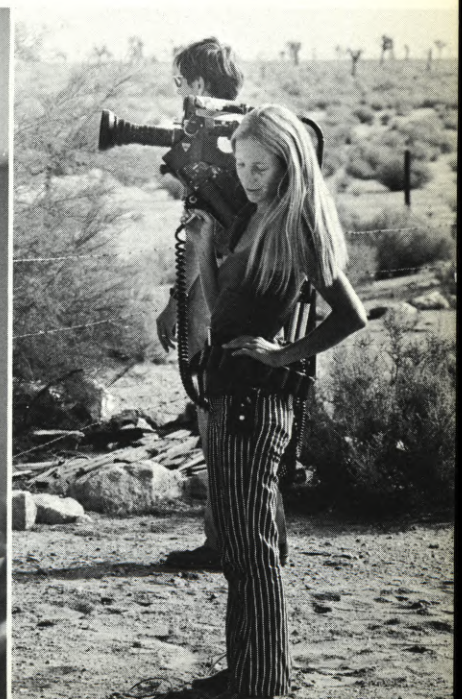
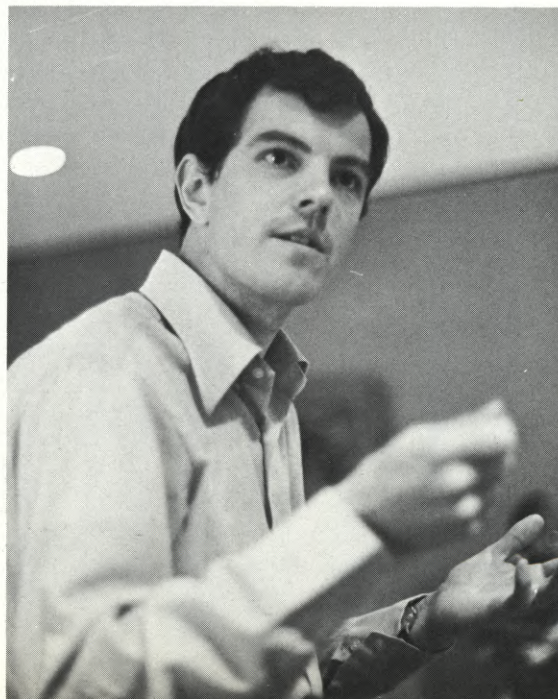
Perhaps I'm not the one to say this, since formalized filming is not my *forte*, but I cannot see why some of the economies we effected cannot be applied to more formal types of films.

The production budget for "PUNISHMENT PARK" was \$66,000, and by the time it's completed and blown up to 35mm, the cost will be under \$100,000.

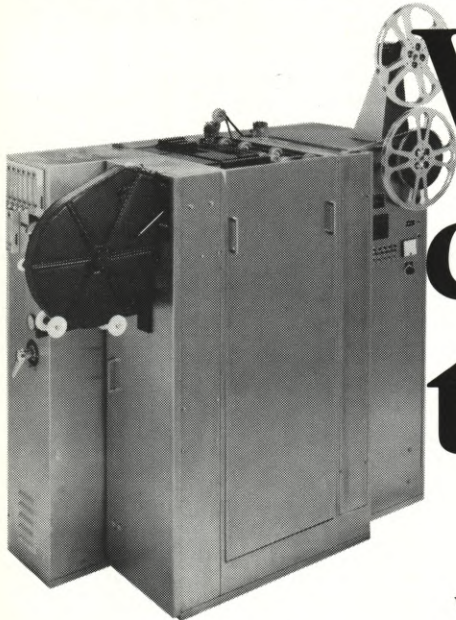
About the Director: Peter Watkins' first film THE DIARY OF AN UNKNOWN SOLDIER (1959), which he financed himself as a totally amateur production, won one of the ten best awards of the annual "Amateur Cine World" competition in England in 1960. His next film, THE FORGOTTEN FACES (1960), won one of the same ten best awards in 1961. His third, and first professional film, CULLODEN, made as a television documentary, won the British Screen Writers' Award of Merit, the Society of Film and Television Arts Merit Award, and other similar awards. A year later, Watkins made THE WAR GAME, perhaps his best known film to date, which reconstructed in newsreel manner the effects of a thermonuclear attack on Britain. This film though banned by the BBC, for whom it was made, was subsequently released in cinemas and went on to win numerous awards for Watkins including, of course, the Academy of Motion Picture Arts and Sciences best feature-length documentary award for 1966, better known as the "Oscar".

PRIVILEGE, Watkins' next picture, won the Critics Award at the Third Rome Film Festival, the "Primo Di Selezine" at Sorrento, and the International Federation of Cine-Clubs Grand Prix at Cannes, among other awards. His last completed film, THE GLADIATORS, a severe comment on the present framed as a vision of the future, won the Golden Asteroid at the Eighth International Festival of Science Fiction Films in Trieste.)

(LEFT) Much-honored young British writer/director, Peter Watkins, discusses his film during symposium held at the Atlanta Film Festival. (RIGHT) Deceptively frail-looking camerawoman, Joan Churchill, is a highly skilled technician with a great deal of experience in documentary filming.



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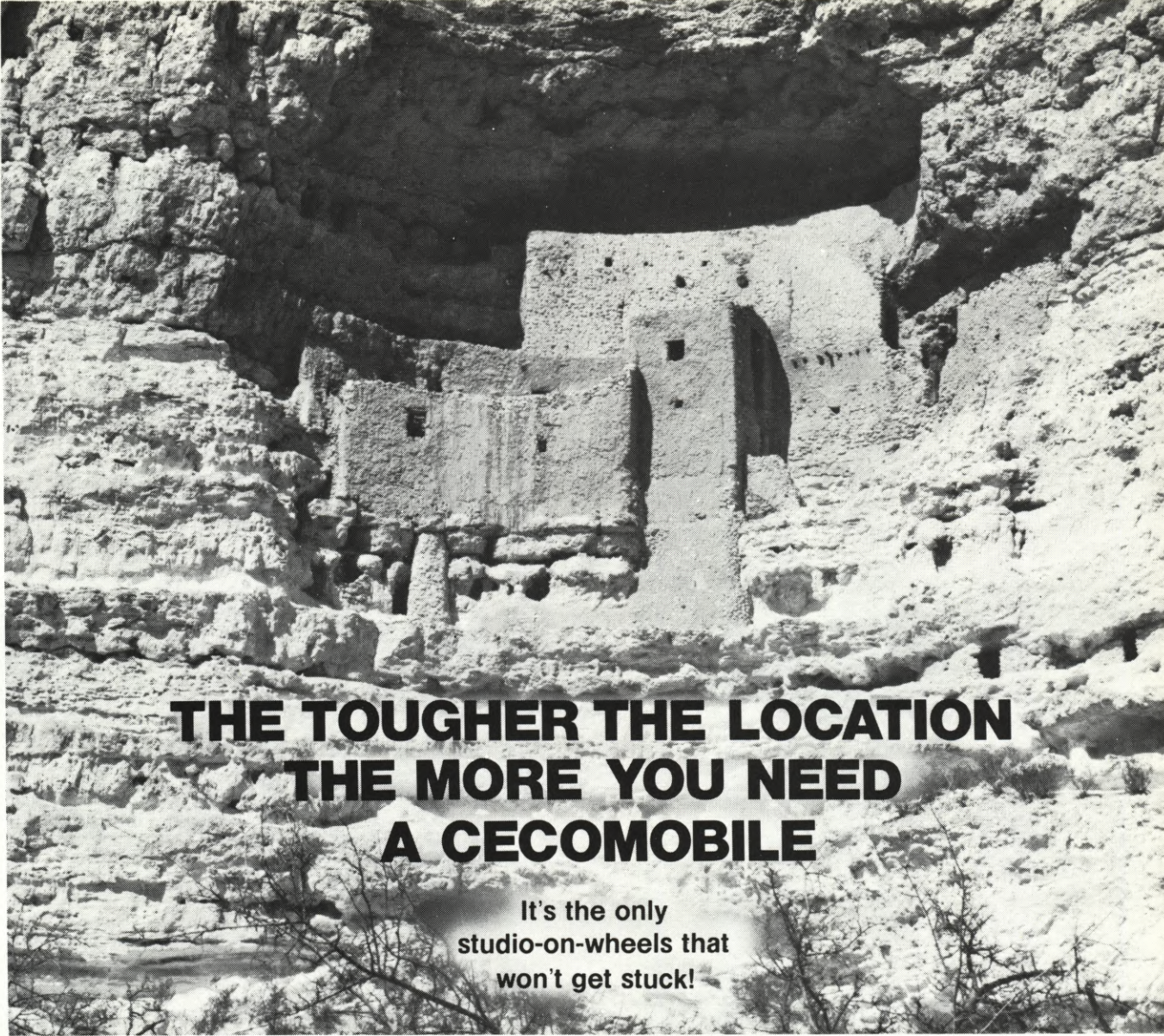
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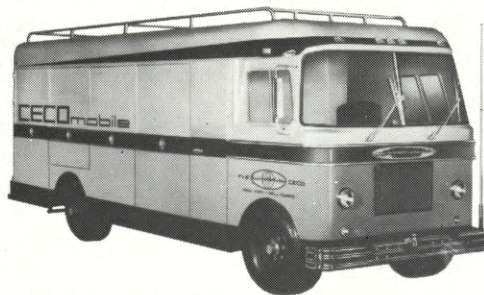
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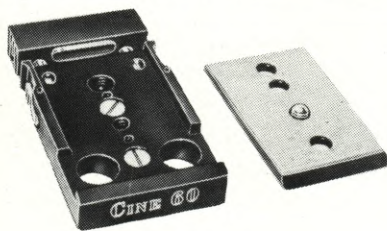


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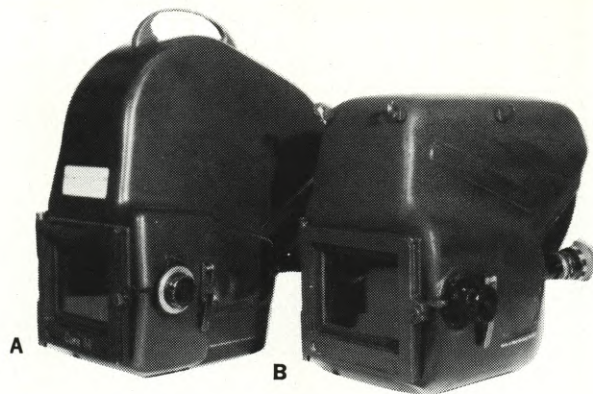
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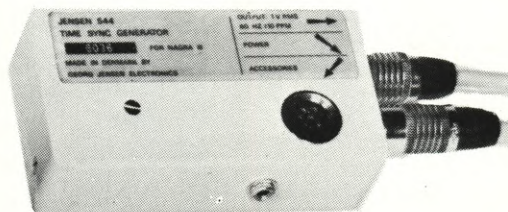
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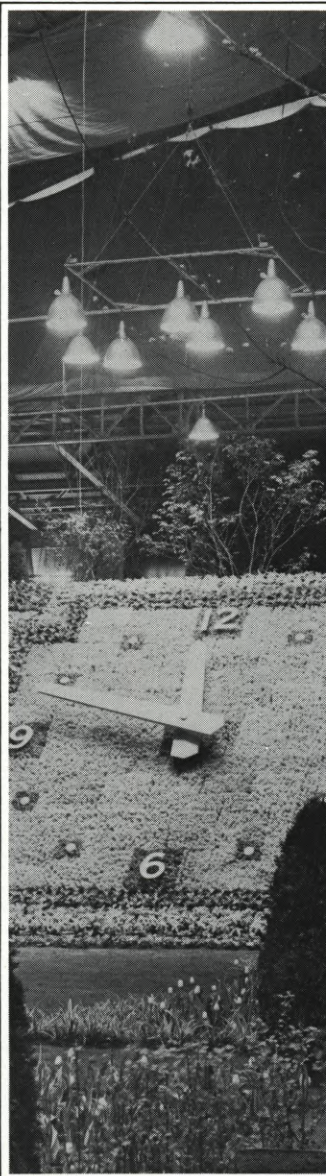
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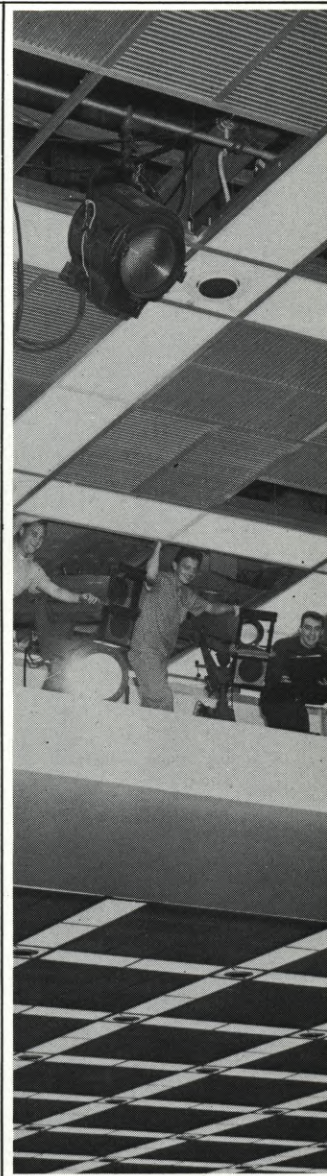
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Silver Medal
Underwater
"OCEAN DESERT"
Fordel Films, Inc.
New York, New York

Silver Medal
TV Commercial 30 Sec.—Live Action
"WRESTLERS"
Clinton E. Frank, Inc.
Los Angeles, California

Silver Medal
TV Commercial 30 Sec.—Animation
"YOUR LOVELY LIFE"
Nationale Publiciteits Onderneming NV
The Hague, Holland

Silver Medal
TV Commercial 30 Sec.—Public Service
"STUDENTS FOR PEACE"
Snazelle Films, Inc.
San Francisco, California

Silver Medal
TV Commercial 30 Sec.—Mixed Media
"T-BONE RODEO"
William Cook Advertising
Jacksonville, Florida

Silver Medal
TV Commercial 30 Sec.—Series
"CALL OF DESTINY" CAMPAIGN
Handley & Miller, Inc.
Indianapolis, Indiana

Silver Medal
TV Commercial 60 Sec.—Live Action
"RAINY DAY"
Clinton E. Frank, Inc.
Los Angeles, California

Silver Medal
TV Commercial 60 Sec.—Animation
"CAVEMAN"
Wilson, Haight & Welch Advertising
Hartford, Connecticut

Silver Medal
TV Commercial 60 Sec.—Public Service
"NO PLACE TO GO"
WAVE-TV
Louisville, Kentucky

Silver Medal
TV Commercial 60 Sec.—Series
"IMAGE"
Doe-Anderson Advertising Agency
Louisville, Kentucky

Silver Medal
TV Commercial 60 Sec.—Political
"MTA"
Guggenheim Productions, Inc.
Washington, D.C.

Silver Medal
TV Commercial—Less Than 30 Sec.
"D D D CARTOON" CAMPAIGN
Handley & Miller, Inc.
Indianapolis, Indiana

Silver Medal
TV Commercial—Longer Than 60 Sec.
"DUNHILL PURDY'S"
Audio Kine Africa Studios (PTY) Ltd.
Cape Town, South Africa

Silver Medal
TV Commercial—Regional
"SLOW MOTION MORNINGS
CAMPAIGN"
Handley & Miller, Inc.
Indianapolis, Indiana

Silver Medal
Experimental—Animation
"THE MASQUE OF THE RED
DEATH"
Zagreb Films & Contemporary
Films/McGraw-Hill
Yugoslavia and New York City

Silver Medal
Experimental—Mixed Media
"COLORADO SCENIC"
Barbre Productions, Inc.
Denver, Colorado

Silver Medal
Experimental
"BATTERY DAVIS"
Philip Makanna

Silver Medal
Short Subject—Live Action
"THE FATHER"
American Film Institute
Beverly Hills, California

Bronze Medal
Lead-Ins & Trailers—Animation
"THE ED SULLIVAN SHOW"
Elinor Bunin Productions, Inc.
New York, New York

Bronze Medal
Children's Films
"BACKWARD/FORWARD"
The Moving and Talking Picture Co.
Philadelphia, Pennsylvania

Bronze Medal
Corporate Image
"PERSONALITY OF A MARKET"
Feigelson, Giertz & Hall, Inc.
Houston, Texas

Bronze Medal
Earth Sciences
"GROUND WATER—THE HIDDEN
RESERVOIR"
Audio Productions
New York, New York

Bronze Medal
Ecology & Conservation
"JOURNEY INTO SUMMER"
Xerox Films
Ann Arbor, Michigan

Bronze Medal
Educational
"GENETICS: MAN THE CREATOR"
Hobel Lieterman
Toronto, Canada

Bronze Medal
Flight
"SPACE IN THE 70'S—
AERONAUTICS"
National Aeronautics & Space
Administration
Washington, D.C.

Bronze Medal
Fund Raising
"WOULD YOU TAKE A SHARE"
Aetna Life & Casualty
Hartford, Connecticut

Bronze Medal
Graphic & Cultural
"AURUM"
Gazelle Film Productions, Ltd.
Association-Sterling Films
New York, New York

Bronze Medal
History
"JEFFERSON'S MONTICELLO"
WRC-TV
Washington, D.C.

Bronze Medal
Industry & Business
"FIRE ON ICE"
Peckham Productions Incorporated
New York, New York

Bronze Medal
In House
"IT'S ONLY NUMBERS"
IBM Corporation
New York, New York

Bronze Medal
Medical & Health
"IVAN AND HIS FATHER"
Dimension Films
Los Angeles, California

Bronze Medal
Music & Dance
"MIME OVER MATTER"
SIM Productions
Weston, Connecticut

Bronze Medal
Peace
"WAR SERMON"
David Bell Associates, Inc.
Hollywood, California

Bronze Medal
Political
"REQUIEM 29"
David Garcia
Los Angeles, California

Bronze Medal
Public Relations
"QUARTET—A SKI STORY"
Summit Films
Denver, Colorado

Bronze Medal
Public Service
"IT TAKES A LOT OF HELP"
Kemper Insurance
Modern Talking Pictures
Chicago, Illinois

Bronze Medal
Recruitment
"HAPPINESS IS MALIBU"
Vik-Winkle Productions
Studio City, California

Bronze Medal
Religion & Ethics
"TODAY IS MINE"
Charles R. Depriest
Nashville, Tennessee

Bronze Medal
Safety
"DRIVING—OR DRIVEN?"
Aetna Life & Casualty
Hartford, Connecticut

Bronze Medal
Sales
"READING: A GIFT FOR LIFE"
Goldsholl Associates
Northfield, Illinois

Bronze Medal
Scientific, Research
"MARINER MARS '69"
Jet Propulsion Laboratory
Pasadena, California

Bronze Medal
Social Welfare
"GERONIMO JONES"
Learning Corporation of America
New York, New York

Bronze Medal
Sports
"JEFFRIES-JOHNSON 1910"
Bill Kimberlin
San Francisco, California

Bronze Medal
Television
"GOD SAVE THE QUEEN"
WKYC-TV
Cleveland, Ohio

Bronze Medal
Travelogue
"GETAWAY TO THE UNCOMMON
LAND"
Trans World Airlines
Spectrum Associates
New York, New York

Bronze Medal
TV Commercial 30 Sec.—Live Action
"BEETLE"
Kinro Advertising Co.
Atlanta, Georgia

Bronze Medal
TV Commercial 30 Sec.—Animation
"FLAGPOLE"
Kim & Gifford Productions
New York, New York

Bronze Medal
TV Commercial 30 Sec.—Public Service
"HEADS YOU LOSE"
Artichoke Productions, Ltd.
Toronto, Ontario, Canada

Bronze Medal
TV Commercial 30 Sec.—Series
"RIDE THE BACKS", "ENERGY
KIDS", "BRICKS"
Medion, Inc.
San Francisco, California

Bronze Medal
TV Commercial 60 Sec.—Live Action
"UNDERMINERS"
Kinro Advertising Company
Atlanta, Georgia

Bronze Medal
TV Commercial 60 Sec.—Animation
"CLOCK"
Dolphin Productions
Computer Image Corporation
Beverly Hills, California

Bronze Medal
TV Commercial 60 Sec.—Public Service
"WHAT TEETH ARE FOR"
Life Style Productions, Inc.
Chicago, Illinois

Bronze Medal
TV Commercial 60 Sec.—Series
"CUTTING HORSE"
William Cook Advertising
Jacksonville, Florida

Bronze Medal
TV Commercial 60 Sec.—Political
"CHECKERS"
Guggenheim Productions, Inc.
Washington, D.C.

Bronze Medal
TV Commercial—Longer Than 60 Sec.
"CREDITAP"
Audio Kine Africa Studios (PTY) Ltd.
Cape Town, South Africa

Bronze Medal
TV Commercial—Regional
"BELL BOUTIQUE"
Handley & Miller, Inc.
Indianapolis, Indiana

Bronze Medal
Experimental—Animation
"STEEL"
Computer Image Corp.
Beverly Hills, California

Bronze Medal
Experimental—Mixed Media
"INTERMISSION"
Farquhar Productions
Newport Beach, California

Bronze Medal
Experimental
"FLAT FLIP FLIES STRAIGHT"
Dallas Garred
Pelham, New York

"IMAGES"

By RON WILLIAMS

Director/Cameraman

Film is, or at least should be, a visual art. Unfortunately, many filmmakers continue to rely on narration and dialogue as their primary tools for communication. We approached the production of "IMAGES" with two major objectives. Firstly, to clearly establish the primary aim of the client. And secondly, to realize this aim visually, with a minimum of descriptive narration.

My producer, David M. Gentile, and I started the script-writing by outlining all of the ideas we wished to communicate without using any dialogue or narration.

Our hope was to communicate complex ideas solely through visual means. Narration or dialogue would be used only as a last resort. The result is a seventeen-minute film without a word of narration. At only one point in the film was a voice track used and that was limited to a thirty-second segment during which a radio voice is heard.

"IMAGES" was made for The Women's Division of the Greater Miami Jewish Federation and was originally conceived as a multi-media slide and tape presentation budgeted at \$500.00. But as ideas began to take shape, the pro-

GOLD MEDAL Fund Raising

duction seemed much more suited to film. Five hundred dollars, however, was the limit. Perhaps, I thought, a 10-minute film could be made with such a budget if we could cut every cost other than laboratory charges. The subject was interesting and we were excited by the challenge so we decided on a rather risky course of action. We would finance the production, keep the cost to a minimum, and hope that the client would be impressed enough to purchase the finished product.

The film presents a day in the life of a suburban Jewish-American housewife. We follow this young devoted mother through the activities of her day . . . but we also take a look at the problems which exist around her, problems which The Greater Miami Jewish Federation works to solve daily. Involved only with the needs of her family, the mother is unaware of the black and white intrusions which, among other things, contrast the youth of her son on his bicycle to the decay of a man in a wheelchair—the warmth of her family gathered for the traditional Friday night dinner with the loneliness of a single woman forgotten in her small apartment and the tranquility of her home with the conflict of the war in the Near East.

To save time in the exposition of the more routine aspects of the family's life we employed split screen. There are four sections of split screen in the film—morning activities, a shopping sequence, dinner preparation, and a section in the Israel part of the film. If produced in an optical laboratory the cost of these sections would have been prohibitive. However, we were able to create 4½ minutes of split-screen for a mere \$125.00. This was possible through the use of 35mm slides and a



Examples of several split-screen configurations created for "IMAGES". Though such effects would normally require intricate and expensive optical printing, they were made simply and very inexpensively by rear-projecting 35mm slides onto various areas of a one-foot-square piece of ground glass, and then filming them with a locked-down Beaulieu R16B camera equipped with an Angenieux 12mm-to-120mm zoom lens.

(LEFT) The film's "star", Helene Berger, discusses the morning sequence with Director/Cameraman Ron Williams. The Bergers generously donated their time and home to the project. (CENTER) Split-screen set-up, employing a Kodak Carousel slide projector, one-foot-square ground glass and a Beaulieu R16B camera. This same camera was used for filming the entire production. (RIGHT) The author found the Beaulieu R16B to be totally capable of professional results. Camera is shown mounted on Samcine body-brace.



New Eclair ACL: half the size and half the weight!

Sync sound and silent running
in a camera that weighs 8½ pounds
and is less than a foot long.

Ken Nelson has made a short documentary film with an ACL. "In the past, I've always looked around for a place to rest the camera between shots," says Mr. Nelson. "But with this new one, I found it didn't occur to me to put it down."

With its 200 foot magazine and without a lens, the ACL weighs less than 9 pounds and measures 11½ inches from front to back. Half the size of its competitors. Less than half the weight.

This is the most *inconspicuous* camera on the market. It's completely silent, of course. Hand-held, it's much smaller and lower than your head, as you can see. The battery weighs about a pound and fits into your pocket.

And the ACL is *fast*. You can change its clip-on magazine in less than five seconds. No threading; no need to touch the film at all. Film maker Eric Saarinen says: "This is the first silent camera you can *run* with."

The ACL has a crystal-control motor. Sync sound with no connection whatever between camera and tape recorder. Fantastic accuracy. Sync error is less than ½ frame in one *continuous* 200 foot take. That's 8,000 frames.

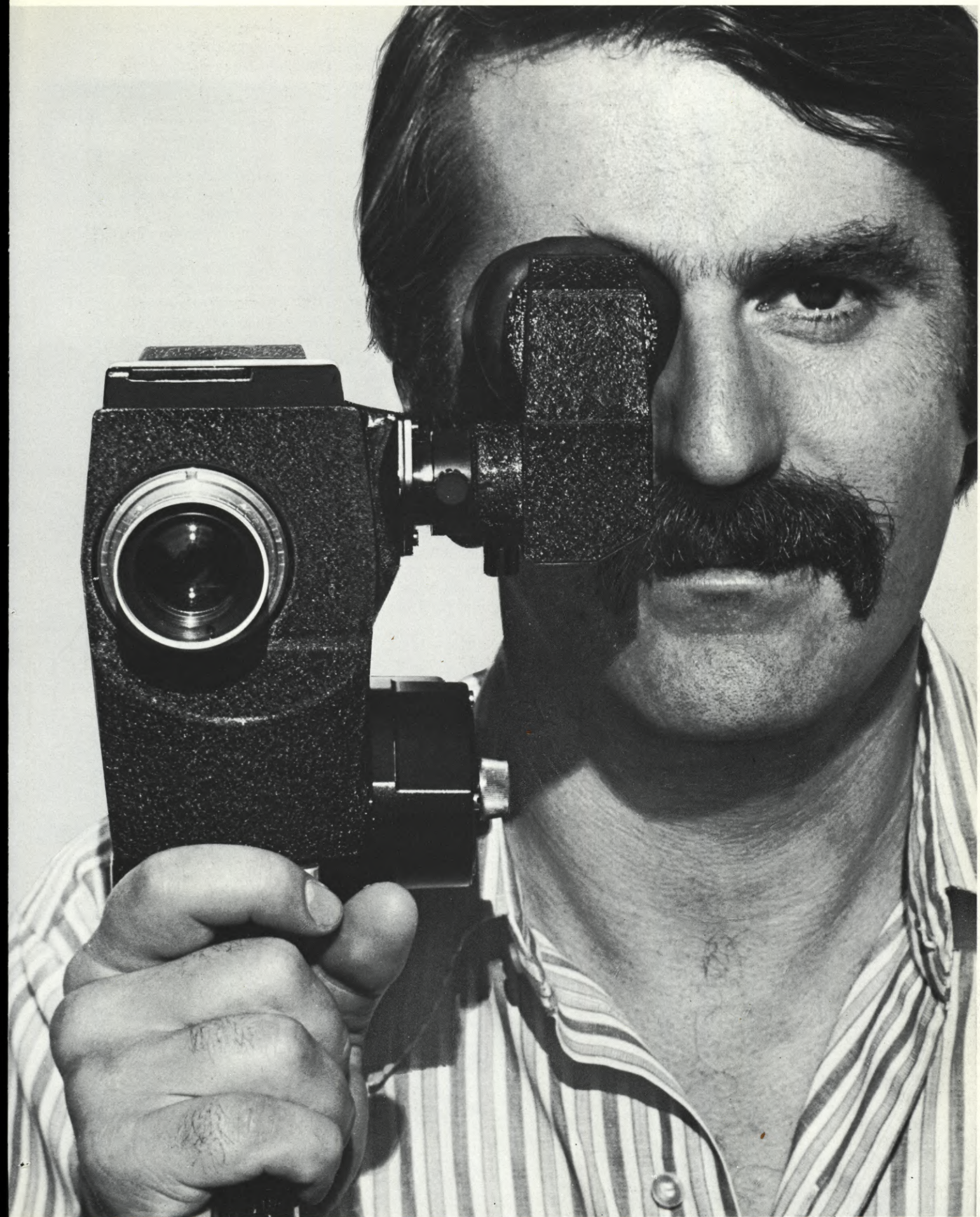
What else? A universal lens mount that lets you use any lens with any mount. Extremely bright and precise reflex viewing, with a viewfinder that rotates 360 degrees. And a price that's considerably lower than the competition.

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Film '71

The International Film Technology Conference and Exhibition

By P.A. WEST

London

For cinematographers, the most interesting part of the "FILM '71" International Film Technology Conference held in London June 21 thru 25 was probably the morning session on Wednesday, June 23, when some of the world's top camera and optical designers presented papers on motion-picture camera design. Contributors included world-famous veteran George Mitchell, designer of the world-standard studio camera which bears his name, whose paper "Factors in Motion-Picture Design" (read by his son Tom) pinpointed the three main areas to which camera designers must address themselves—quality of the imagery produced by the camera, quality of the camera itself as regards its reliability, and cost. He stressed the vital importance of image-steadiness, which could only be ob-

tained by positive registration, and announced that for his new company, the Gamit Corporation (from G.A.MITchell), he had designed a new series of light and simple cameras embodying a two-pin vertical registration movement. This is suitable for 16mm, 35mm and Super-8 professional cameras, although at present the company has devoted most of its development effort to the 16mm version and hopes to have a production prototype finished by September 1971.

Heretofore, positive registration movements have always utilized two pins separated along a horizontal baseline, the Gamit 16 separates them along a vertical base, so that with the dual pull-down claws they are aligned along one row of perforations. This not only results in a simple and light movement,

but permits easy conversion from standard to Super 16mm. Similarly, on 35mm film it would permit a Super-35 format with a wide-screen image extending over part of the film now occupied by a row of perforations.

The low mass of the movement is also suitable for fast pull-down, and Mitchell is hopeful of achieving a 300-degree maximum shutter opening—effectively $\frac{3}{4}$ stop faster than that of most existing cameras—which would permit shooting in light levels that are not possible at present, and which would also allow the light level for a given lens aperture to be reduced by 40% (from 400 to 240 foot-candles, for example). Stroboscopic effects should also be reduced. Such large shutter angles present a problem for reflex viewfinding, and a pellicle may have advantages over a spinning mirror. The camera will be driven by a crystal-controlled motor at 24 or 25 f.p.s. for cordless sync-sound shooting, and will use simple, clip-on 400-foot magazines.

During the reading of Mitchell's paper, H.R.H. Prince Philip, the Duke of Edinburgh, paid his visit to the lecture hall, and after listening to the discussion he met and talked with most of the speakers, who apart from Mitchell, father and son, included such well-known figures as Robert Gottschalk, President of Panavision; Ed Di Giulio of Cinema Product Developments; Marcel Beaulieu; Austin Coma of Eclair-Debrrie; Reinhold Schutz of Arnold & Richter; and others, and then went on to address the conference.

Welcoming the many foreign delegates from all parts of the world, the Duke said that, in his opinion, talking shop was about the best basis for international understanding one could hope to find anywhere. That sort of discussion broke down all barriers of language, race, creed, nationality, class and everything else which divided people. No amount of correspondence or technical articles were quite the same as an hour with a man, face to face, who knew as much about one's business, if not more, than one did oneself. He added that there was no doubt that the technology available to film-makers had made tremendous strides, but that, unfortunately, good technology did not guarantee good films. While all could agree about colour, about focus, sound, scratches and all the technical qualities of the film, he didn't think there could ever be general agreement about the use to which this technology was put. The difficulty about the motion-picture business was that it required real talent in all departments—talent among writers,

As with FILM '69, London's posh Royal Lancaster Hotel again served as official headquarters for FILM '71, The International Film Technology Conference and Exhibition. Foreign delegates representing motion picture interests in all parts of the world converged on London for the highly successful five-day meeting sponsored by the British Kinematograph Sound and Television Society.



producers, directors, professional actors, cameramen, lighting and sound engineers and all the others in the back rooms working with their "black boxes", and it was only when you had a team like that together that the technology became really important. The best equipment in the hands of incompetent or unimaginative amateurs was as useless as a piano in the hands of someone who was tone-deaf.

Earlier, the Duke had toured the equipment exhibition and seen the latest in film production equipment from various parts of the world. The newest exhibit at the show was probably the new Panavision R-200 reflex camera, which was making its world debut. During the camera designers' forum Bob Gottschalk, assisted by Sydney Samuelson, from Panavision's European agents, Samuelson Film Services, described its novel points: A speeding-up of the pull-down mechanism has permitted the maximum angle of the mirror shutter to be increased to 200 degrees, and it was



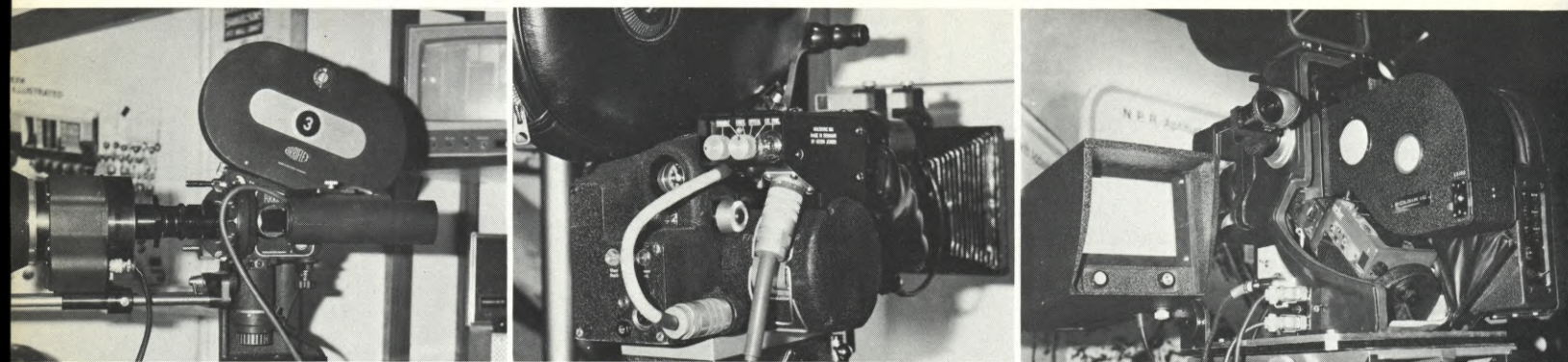
The conference halls at the Royal Lancaster were constantly packed with film technicians from many places, gathered to hear the various interesting papers and observe demonstrations presented. Of special interest was the seminar on camera design, during which some of the world's foremost camera and optical designers presented papers.



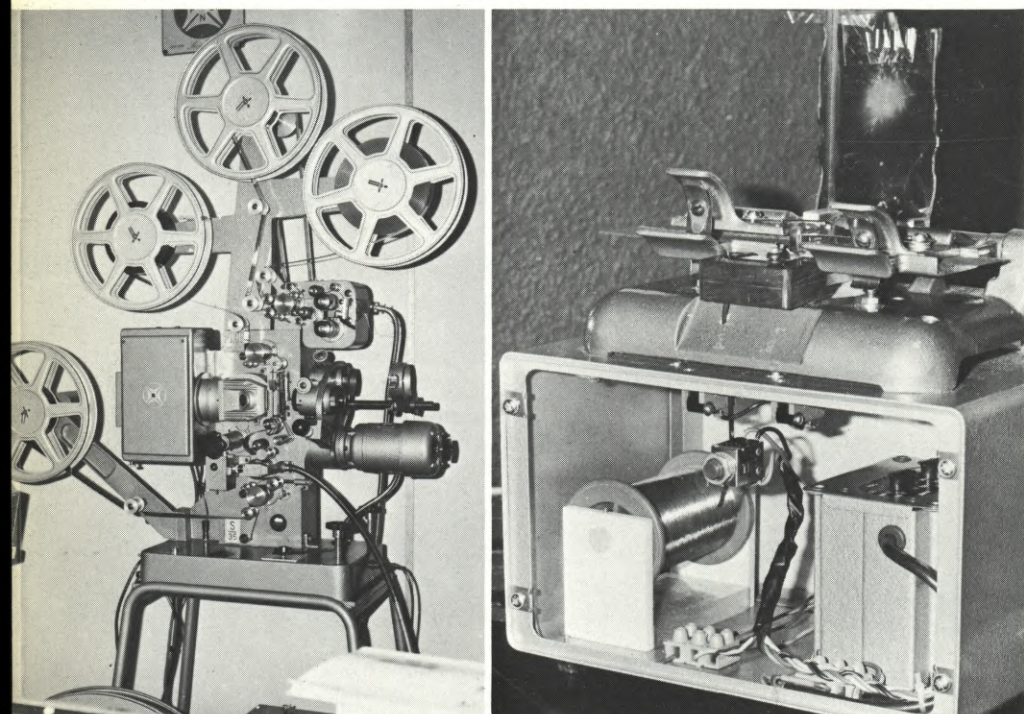
(LEFT) Of special interest to those attending were exhibits of the latest in motion picture equipment. (CENTER) Sidney Samuelson points out features of the new Panavision R 200 camera to H.R.H. Prince Philip, Duke of Edinburgh. At left is Panavision President Robert Gottschalk, at right, BKSTS President David Samuelson. (RIGHT) Mr. R. Schutz, Export Manager of Arnold & Richter, K.G. shows the new Arriflex 35 BL to Rank Film Equipment Joint Manager, T.M. Wheeler. (BELOW) Prince Philip chats with George Mitchell (designer of the famed camera that bears his name) and his son, Tom.

claimed that tests evaluated by MGM and Technicolor in Hollywood showed a one-stop increase in speed over pellicle-finder cameras. If required, it is possible to use a pellicle in place of the spinning mirror. Other features include a variable magnification (zoom) finder eye-piece that can be set to suit any cinematographer, director or operator—and re-set very quickly, as the selected magnification and eye focus positions can be marked on white strips adjacent to the relevant controls. An optional deanamorphosing facility is built in. Focus-pulling can be done from either side of the camera or from the rear, with the possibility of remote operation by a simple flexible cable control. The focus puller can mark up special positions on white strips that attach magnetically behind the focus knobs. The variable shutter has adjustable limit stops, so





(LEFT) Dynalens and video viewfinder mounted on the Arriflex 35 camera (Samcine). (CENTER) The Jensen Multisync crystal-control unit for the Arriflex 16 BL. (RIGHT) The Eclair NPR camera, with crystal motor in hard blimp and Add-A-Vision electronic viewfinder, as used on the "JASON KING" TV series, filmed at EMI-Elstree.



(LEFT) The PION 35mm Double-bank Projector (Samcine). (RIGHT) Prototype of the new Kodak hot-wire splicer for polyester-based films.

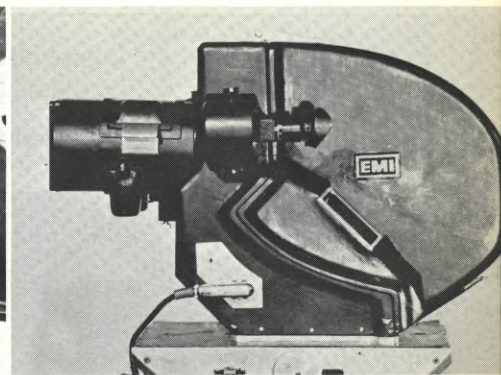
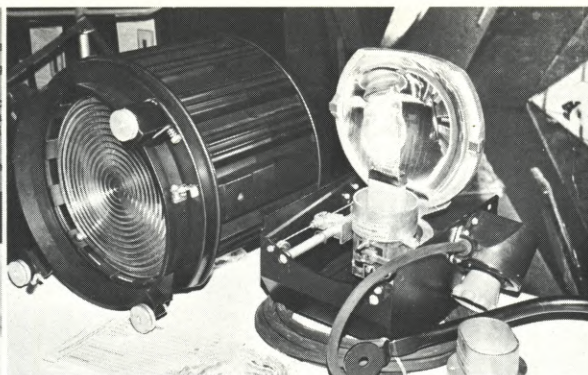
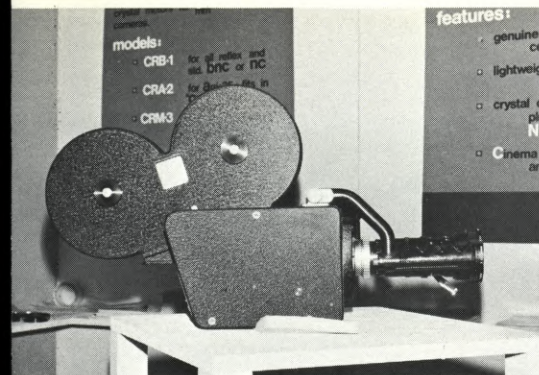
that it is possible to alter shutter angle on a shot by feel, without even looking at the control; the stops can also be used to lock the shutter in its normal fully-open position.

Camera drive is normally from the Panaspeed electronically-controlled motor, with a choice of crystal lock or 8-32 f.p.s. variable speed operation, with electronic tachometer indication. The changeover between the two methods of operation is safeguarded against accidental movement by an effective lock. The matte-box can take three filters, all rotatable, plus a fully adjustable polascreen. In addition, a filter-slot for gelatines is fitted behind the lens, but far enough from the film not to risk casting shadows from dust or dirt particles. Magnesium castings make this camera some 40 pounds lighter than other comparable studio reflex cameras. If necessary, a 400-ft magazine with its own blimp cover can reduce the height and weight of the camera still further.

Along with the camera, Panavision introduced a new set of super-speed, high quality spherical (non-anamorphic) lenses, which are 1-2 stops faster than the nearest equivalent modern optics for studio reflex cameras. The fastest in the

(LEFT) New Canon 35 Macro-zoom lens mounted on Cinema Product Development's SPR-Mitchell camera. (CENTER) The new Beaulieu R16B (PZ) 16mm camera, with built-in power zoom lens and Pilotone generator. (RIGHT) Panavision President Robert Gottschalk and Sidney Samuelson discuss new Panavision R 200 camera and super-fast new spherical 55mm, T/1.1 Panavision lens.



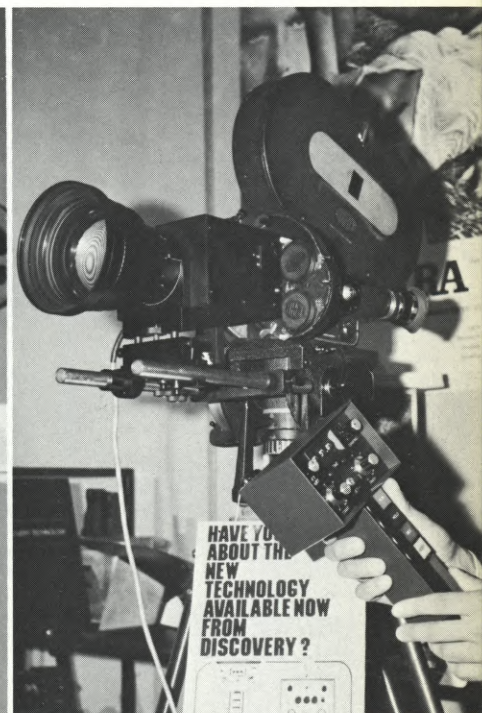


(LEFT) Prototype of Cinema Product Development's new CP-16 newsfilm camera with crystal-controlled motor, based on the Auricon Cinevoice mechanism. (CENTER) Ianiro universal lamp base, with focusing mechanism, for fresnel luminaires, accepts 2K, 5K or 10K lamps, either standard tungsten or quartz. (RIGHT) EMI-blipped Eclair 16mm camera.

series is a 55mm T/1.1, and others include 28mm T/1.9, 35mm T/1.3, and 127 and 150mm T/1.7 lenses as well as a new high-quality 20-120mm zoom lens fitted with a totally silent zoom motor.

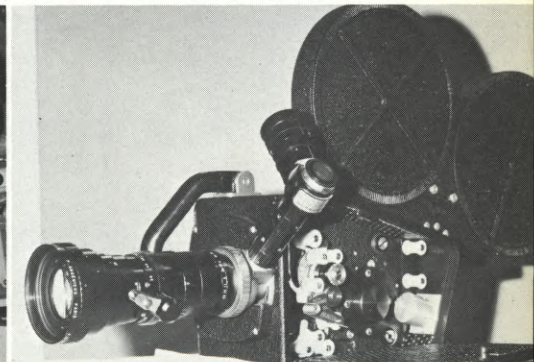
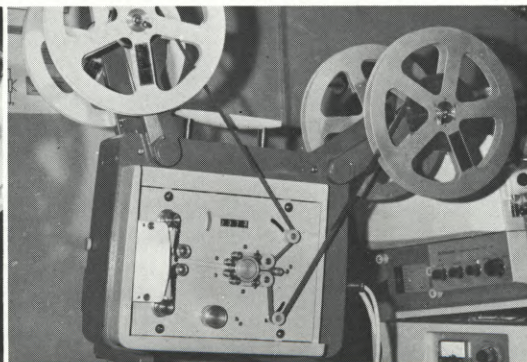
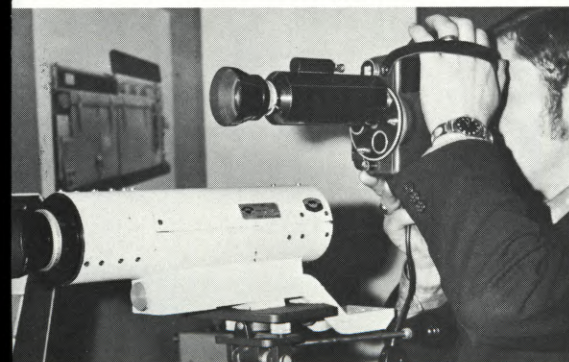
Another familiar speaker at the forum was Ed Di Gulio of Cinema Product Development, who spoke on camera design philosophy. He pointed out that progress in technology was accelerating in a geometric progression, and he cautioned rental companies to look at their fees and perhaps amortise their equipment more rapidly, as they were basing their thinking on what had happened in the past, rather than on likely future progress. Recent developments had come partly from mechanics—new materials such as plastics and carbon fibers; from optics—new computer-designed lenses, new optical materials, and high-efficiency anti-reflective coatings that had, for instance, made the design of pellicle-mirror systems possible by suppressing secondary reflection from the rear surface; and mainly from electronics—which have only been exploited to a very limited extent in the motion-picture field to date. He expressed the

Continued on Page 823



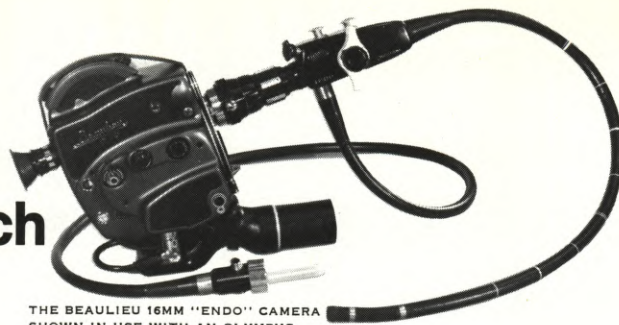
(LEFT) Canon Scoopic 16mm camera converted for Pilotone, shown working with cassette tape recorder. (Visnews Facilities). (RIGHT) Discovery Technology's computerized zoom-control unit.

(LEFT) Old Delft's prototype 3-stage (bottom) and single-stage image amplifiers. (CENTER) P.A.G.-Honushin Polestar double-band conversion. (Double-band Developments). (RIGHT) View of Auricon mechanism inside Cinema Product Development's prototype CP-16 newsfilm camera.



New from Beaulieu!

Introducing the R16BTE "ENDO" Scientific Research 16mm Camera.



THE BEAULIEU 16MM "ENDO" CAMERA SHOWN IN USE WITH AN OLYMPUS ESOPHAGO FIBERSCOPE.

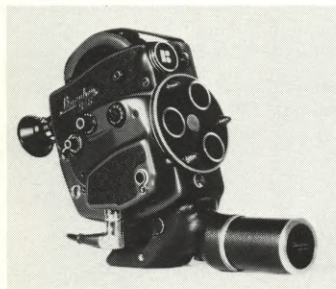
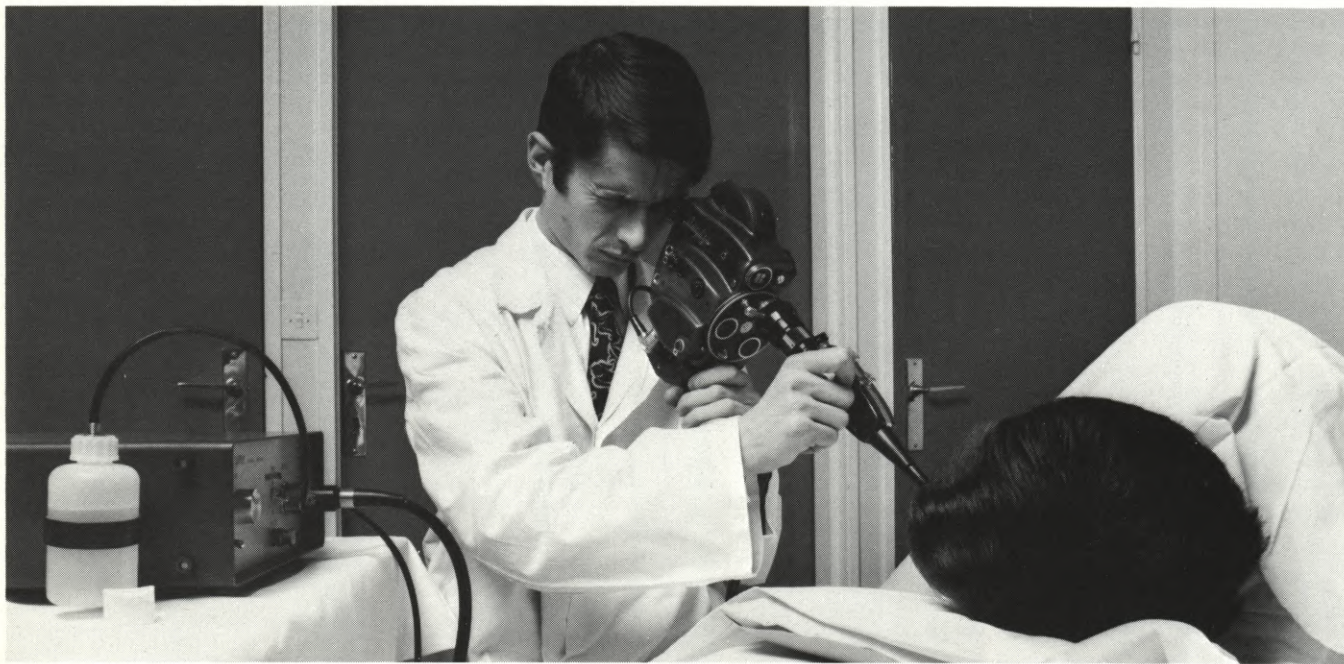
The Beaulieu 16mm "ENDO" camera has been specially designed as a scientific research cine-camera, and is ideally suited for *endoscopic* and other medical-type filming.

The Beaulieu "ENDO" camera operator can *instantly* and *automatically* compensate for the rapid and unpredictable changes in exposure conditions encountered during endoscopic cinematography.

The cameraman can also operate the "ENDO" camera on-off switch by *remote control* (usually by foot pedal). This is an extremely important feature in endoscopic filming, since the cameraman's hands must be as free as possible in order to easily control exposure and other vital camera functions, and—at the same time—manipulate the ultra lightweight camera body and endoscope.

The new Beaulieu "ENDO" camera has also been provided with a clear viewing spot in the center of the ground glass, which allows unimpeded viewing during filming in the low light conditions usually found in endoscopic explorations. Another aid in countering these low light levels is the *mirrored shutter* on the Beaulieu 16mm "ENDO" camera, which permits 100% of the available light to reach the film plane, and—alternately—100% of the available light to reach the viewing screen.

In addition to endoscopic and other research-oriented cinematography, the Beaulieu 16mm "ENDO" 3-lens turret camera is also ideal for all types of *normal* filming, whether for professional purposes or simply for pleasure.



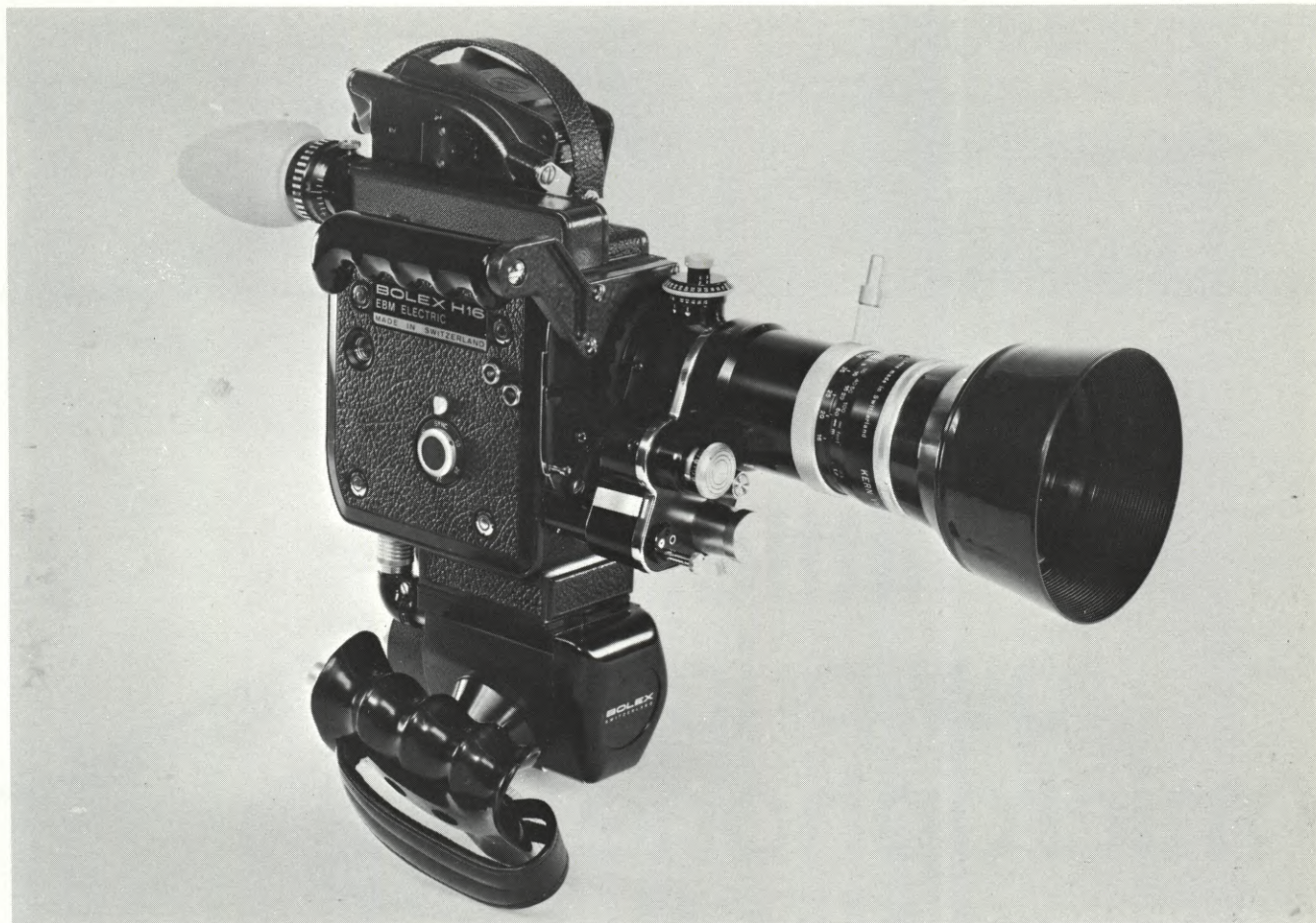
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- Thru-The-Lens Exposure Control
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- Nickel-Cadmium *long-life* Battery (interchangeable power supply housed in camera handgrip)
- Plus, a full range of professional accessories, including a 200 ft. daylight-load 16mm Magazine, Microscope Adapter, etc.

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Rugged, professional camera construction for reliable performance with professional picture quality, and registration picture steadiness, with proven registration claw.

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100' reels (single or double perforated film) with basic camera, or 200' reels and 400' films on core with accessory 400' magazine and take-up motor. (Same magazine and take-up motor used on other Bolex models.)

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ON LOCATION WITH "DELIVERANCE"

Editor ropes his way down into a 1200-foot chasm to observe filming of a stark and violent tale that is a real "cliff-hanger" for cast and crew and, hopefully, will be for the audience, too

By HERB A. LIGHTMAN

Tallulah Falls, Georgia

I've ended up in some odd places in my never-ending quest for interesting data to pass on to *American Cinematographer* readers, but the spot in which I find myself at the moment is one of the most unusual yet. At this writing, I am at the bottom of 1200-foot-deep Tallulah Gorge, a magnificent chasm through which flows a river with rapids and a spectacular falls that can be turned on and off as needed—just like at Disneyland.

How I got here and what I'm doing in this place bears some explanation. It all started at the Atlanta Film Festival. As one of the finalist judges, required to sit through screenings of all the nominated films (60 hours of them this year) I was in my usual front-row-center seat in the darkened Symphony Hall blissfully watching away, when someone sat down beside me.

"Another candidate for a white cane," I thought, absently, without taking my eyes off the screen. When the lights came up at intermission, I discovered that my front-row companion was Hollywood cinematographer

Continued overleaf

(LEFT) Cast and crew of Warner Bros. production, "DELIVERANCE", shown at work on Cahulawassee River in the back-country wilderness of northern Georgia. (CENTER) Director of Photography Vilmos Zsigmond (in wet suit) and producer-director John Boorman investigate possible location for shooting of a sequence. (RIGHT) On river bottom, rubber boats not only provide sole means of transportation, but serve as "dollies" and water-borne "camera cars", as well.



(LEFT) Camera and sound crews cling to narrow rock ledge for filming start of Jon Voight's climb up sheer rock 200-foot cliff. (CENTER) Boorman directs Voight in rehearsal while camera is being set up for next scene. (RIGHT) On the bottom, where there is scarcely a square foot of level ground, crew members pick their way over slippery rocks, being careful to avoid light cables that seem to be stretched everywhere.





Burt Reynolds, who, like co-star Voight, does most of his own stunts in the film, takes advantage of time between set-ups to grab a few minutes of much-needed rest.

Reflector and xenon lamp are used for fill lighting. Since standard Brute arcs are too heavy and cumbersome for such locations, and cannot be placed in water, xenon units are especially valuable.



(LEFT) Scrim and diffused broad are used to even out the light. In order to accentuate nightmarish mood, direct sunlight is being avoided. Technicolor lab will increase contrast and add extra black to release prints in order to enhance stark effect. (RIGHT) The author photographed this scene from rim of Tallulah Gorge. 1200 feet below, and looking like a colony of ants, cast and crew members, with their boats and equipment, proceed with filming of "DELIVERANCE".



(LEFT) Documentary camera crew (foreground) sets up camera to film the film-makers at work—footage to be incorporated into promotional TV special. (CENTER) Cameraman, in rubber boat, shoots scene of principals canoeing on calm section of river. (RIGHT) Camera and sound crews, with equipment in rubber boat, prepare to follow canoes through treacherous rapids downstream. All such scenes are being filmed with sync-sound.





(LEFT) Ripple effect, to simulate water reflecting on an actor's face, is created by shining a Xenotech Sunbrute into a shallow pan of water, on the bottom of which are pieces of mirror. Agitating water produces the effect. (CENTER) Director, cameraman and soundman, in rubber boat, film sync-sound scene of Jon Voight in the water. (RIGHT) Camera is shown in open-topped glass box which permits lens to film at water's surface or just below it.

Vilmos Zsigmond. Though I had met him only once before on the West Coast (when he came to visit me with his fellow-Hungarian colleague, cameraman Laszlo Kovacs), I was well aware of his work, the latest of which included the photography of "RED SKY AT MORNING", "McCABE AND MRS. MILLER" and Peter Fonda's "THE HIRED HAND".

Zsigmond explained to me that he had come to Atlanta on this, his one day off from a six-day-a-week shooting schedule, primarily to invite me to visit the location site approximately 100 miles north of Atlanta where, as Director of Photography, he was working on the Warner Bros. production, "DELIVERANCE", adapted from the best-selling first novel by famed Atlanta poet, James Dickey. The picture, starring Jon Voight and Burt Reynolds, was being produced and directed by the gutsy English director, John Boorman ("POINT BLANK", "HELL IN THE PACIFIC").

I thanked Zsigmond for the invitation and told him I would be most happy to accept, just as soon as I had done my duty to the Atlanta Film Festival. He called me from the location a few mornings later, according to plan, and arrangements were made for Warner Bros. to send a car and driver to pick me up and take me to the location.

Arriving on schedule after I had finished an evening screening, the driver got lost five or six times trying to orbit free of the Atlanta city limits and

finally headed north toward our destination. On the way I reviewed in my mind what I had learned about the story of "DELIVERANCE". It is a weird adventure yarn built around the premise that ordinary peace-loving people can sometimes, through accidents of Fate, find themselves entangled in a nightmarish situation from which there is no escape, except by means of violence or even murder.

Briefly, the storyline concerns four thirtyish solid citizens from suburbia who decide to make a canoe trip down the wild Cahulawassee River before a federal dam project, already underway, buries the river forever under a gigantic artificial lake. Along the way, two of the weekend adventurers are taken prisoner by a couple of sinister mountain types who rape one of them and kill a third member of their party. Finally, the three surviving peaceful types are forced to kill the mountain men and hide their bodies in order to escape from the nightmare that has descended upon them.

We arrive at our destination in the high back country of northern Georgia around midnight. It is a wide spot in the road called Tallulah Falls, about 10 miles from the nearest real town, Clayton. Here, in a couple of motels perched on the edge of spectacular Tallulah Gorge, are quartered the 50-odd cast and crew members of "DELIVERANCE". Vilmos Zsigmond, who, as it turns out, is a night-owl type like myself, has been waiting for me and we

spend the next three or four hours sipping red wine and discussing the photographic challenges inherent in a project such as this. Since the story is no Rover Boys romp, but rather a tale of terror and suspense, the main problem is to keep the photography from looking too pretty—which is not at all easy when the scenery is so beautiful.

"We are trying to shoot this picture in a very realistic and modern style—which means, basically, that we want it to have a lot of contrast, but no harsh colors," Vilmos explains to me. "We thought, at first, that we might desaturate the colors and get the effect we wanted by flashing the film, just as was done on my previous assignment, 'McCABE AND MRS. MILLER'. On that picture we used a certain percentage of flashing for each sequence, depending upon whether it was sunny or overcast. We got nice desaturated color and a certain softness, which went very well with a story that takes place around the year 1900. But the story of this picture, 'DELIVERANCE', takes place today and it has to have a completely different look, with everything sharp and contrasty. That's why we decided not to flash the film or use any fog filters.

"But there was still the problem of toning down the colors. When you're working on location, there is no way to control outdoor colors, so we decided to have Technicolor do the desaturation at a later time by adding an extra tint of black to the color balance. We made

(LEFT) Rubber boats serve, not only as vehicles of transportation in filming "DELIVERANCE", but also as "dollies" and "camera cars" for shooting on the river. (CENTER) Director John Boorman describes a set-up he has in mind to Director of Photography Vilmos Zsigmond. (RIGHT) Canoes rendezvous for filming of wild sequence through the rapids. A rubber boat with six or seven key technicians, plus camera and sound gear will follow. Equipment will be turned on when interesting spot is reached.



some tests of that method and they really look exciting. You actually have the feeling of looking at a black and white picture—until you see the people. Their skin tones look so realistic that I'm sure everyone will wonder how we got a black and white look without changing the skin color at all.

"Last week I had an interesting experience. We were going down the river when a storm came up. The sky became very overcast and it started to rain. I looked at the landscape and the water and they appeared exactly the same as in the tests we made, with Technicolor adding about 25% black to the color balance. That convinced me that we were doing the right thing with the photography of this film."

The next morning—crack of dawn, and all that—we make our way to the edge of the Gorge, which is practically right outside the door. The only way to get to the bottom, where the company is shooting, is to rope your way down a 1200-foot almost-vertical cliff. I wouldn't mind tackling it on skis, if the slope were snow-covered, but it's simply very muddy and I have visions of losing my grip on the rope and ending up as a mud-pie at the bottom. What the hell—you only die once!

The descent is as hairy as it promised to be, but with much slipping and sliding and involuntary pirouettes around the rope, I make it to the bottom. I pity the cast and crew members who have to do this act twice a day, but I'm informed that they have been selected as much for their physical agility as for technical skill. Even so, there have been accidents, though no fatalities as yet.

Once on *terra firma*, Vilmos introduces me to Director John Boorman, who welcomes me aboard with warm cordiality. "Vilmos and I spent a lot of time beforehand planning the picture and trying to give it an individual look of its own, which would help tell the story," he tells me. "I've always tried to get a color unity into my pictures and Vilmos and I spent a lot of time visiting locations and discussing how we could do this. He was full of very marvelous ideas and we eventually decided to keep everything black and green, using a lot of contrast, and this is what we've done. It's a problem for Vilmos, because I'm asking him to get a really very stylish look, while shooting under conditions in which it's extremely difficult to impose style upon the environment. We have so many sequences that must be shot where you really can't get much equipment into the area, but somehow he manages to get the effect. I feel that

through working with xenon lights and crystal-sync motors and the fast film stock and so on, we've been able to get footage that would have been impossible to get two or three years ago.

"We did one whole 10-minute sequence in the deep woods on an overcast day. It was shot almost entirely with the Panavision 55mm lens wide open at F/1.4, and the effect was marvelous. It had a very, very strange feeling—which is what we were after. This is a very strange and fierce and violent story, and we want to give the whole film the feeling of being somewhat in another world—the world of a dream, a nightmare. That's really, fundamentally, what it is—but it's also a kind of initiation story. It's about a man, an ordinary guy, who's just living a quiet life until he's thrust into a situation where he has to use emotional and physical resources that he didn't even know he possessed. And so, the river is very representative in the story, symbolizing the deep underground flow of the unconscious. That's why we want to get this dark strange feeling into it."

Boorman excuses himself to supervise the next set-up and I'm introduced to the stars of this dark drama, Jon Voight and Burt Reynolds. They are a very rugged pair of lads—and *need* to be because, I'm told, they're doing most of their own stunts in this picture.

"I slid down a 40-foot waterfall the other day," Reynolds tells me. "It looked simple enough, but I lit right on my tailbone, on a submerged rock, and bounced about five feet in the air. Man,

did that *hurt*. I could hardly move for several hours afterward."

The river just now looks very tame indeed, a veritable pussycat of a waterway, but I'm told that's because it's been dammed upstream to provide hydroelectric power. The authorities, however, are extremely cooperative and will open the dam whenever turbulence is needed for the cameras.

I get a chance to see this effect in action very shortly. Vilmos and his crew are now in wet suits and have the camera mounted on a rubber boat. The scene calls for Voight to dive into the raging river in a frantic effort to locate one of the foursome who is missing.

When everything is in readiness, an assistant contacts the people at the dam by radio. "Okay, let 'er rip!" he bawls. About five minutes later a torrent of white water comes roaring down the gorge, bursting over cataracts, churning into rapids and filling out the waterfall quite impressively. Neat!

Voight dives into the boiling rapids and does his thing, while the rubber boat, with camera crew and director aboard, struggles to keep him zeroed in with the lens. After several takes, including a few for which the camera is submerged just below the water level in an open-topped glass box, the scene is in the can. Voight clammers onto the shore, wriggles out of his sodden jumpsuit, and sits shivering on the bank in his long-johns. The assistant bawls, "Turn 'er off!" and soon the river is flowing gently again, like sweet Afton.

Continued on Page 805

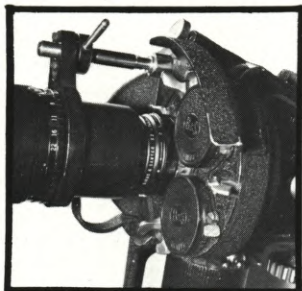
(LEFT) Cahulawassee River, at Tallulah Gorge, is normally a placid stream because water has been dammed upstream. (RIGHT) When dam is opened for filming a scene, the Gorge begins to boil with a torrent of raging white water. Dam authorities obligingly turned water on and off as needed during the shooting.





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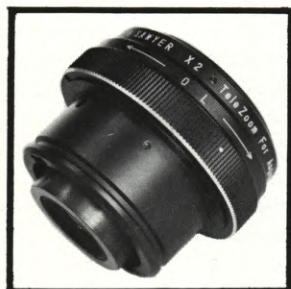
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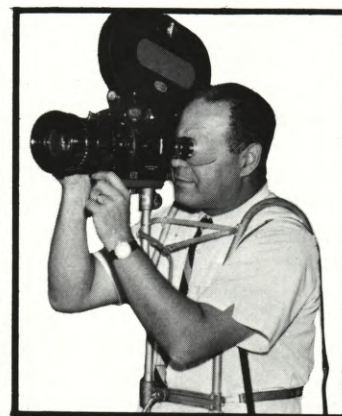
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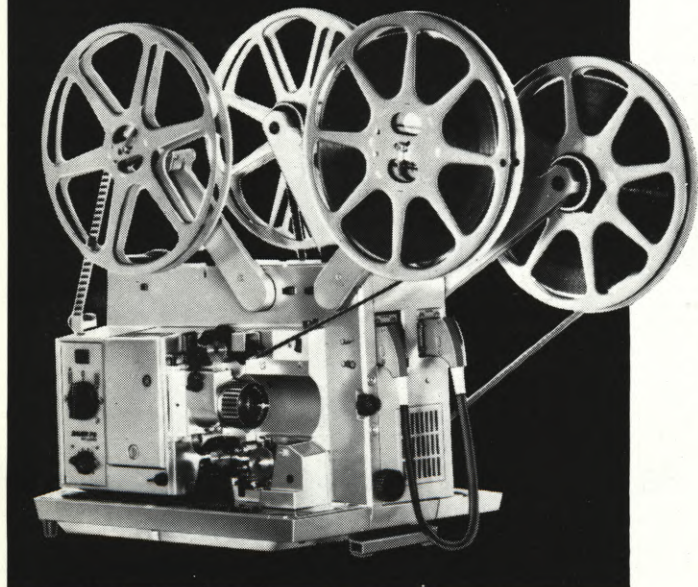


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FILMING "DELIVERANCE"

Continued from Page 799

But it isn't that way in other sections where the dams don't contain the water. "This is a very wild river," Boorman tells me. "The most difficult stuff we've done so far has been the canoeing sequences in rough water. We've worked out a system where we put six or seven people and the equipment in rubber boats. The actors are in canoes, and we just go down river until we find a place where we want to shoot. We film everything with dialogue and it's rather special, because you see the principals going down really fast water. They've all learned canoeing to an extent where they are capable of taking hazards, and they can ride through anything that an open canoe can navigate. They're going through stuff which even very good, highly experienced canoeists wouldn't try. And, of course, we have to go through it, too. It's hazardous and very trying, and you don't have the luxury of an expeditor around to help you out."

Lunch is called—and that turns out to be a production, too. There's no such thing as a commissary truck in these here parts. The food, prepared by loving hands in local kitchens, is trucked to the edge of the gorge. Getting it down to the hungry cast and crew is something else again. It has to be lowered by means of a jerry-rigged system of cables and pulleys. Then the trick is to find a place among the rocks to set up a buffet, where there is no level land. The next question is, where do you perch to eat your lunch? You pick out a rock and squat down on it with the plate in your lap, hoping you won't end up with a crotchful of hot country gravy and grits. It's a good thing I used to be a Boy Scout.

Vilmos, still in his wet suit, pulls up a rock and joins me for lunch. Despite the fact that he's had only about three hours of sleep (how well I know!) and has been clambering about the rocks like a mountain goat all morning, he is bright-eyed, bushy-tailed and rarin' to go.

"I like working with John Boorman very much, because he depends on everybody in the cast and in the crew," he tells me. "John wants everybody to work very hard at his job, but, on the other hand, he's like an orchestra conductor who brings the best out of everybody."

"John knows a lot about photography, which makes it very easy for me to work on this picture. He knows, for example, that a scene shot on an overcast day cannot match a shot that was

filmed on a sunny day. You can match closeups easily enough, but not long shots. It's really fantastic to work with John because he understands this. It's very interesting to realize how much English directors know about weather. It's probably because they have more problems of that kind in making their pictures than we do in California. They really have to struggle sometimes to get that look of visual continuity into their films. Other directors don't seem to have the same feeling for continuity of weather. They want you to shoot if it's sunny or overcast, or even if it's raining. I think this is wrong, because there are certain things you just can't do in matching light."

After lunch, it's up and at 'em again. They're shooting scenes now in which Burt Reynolds, supposedly disabled with a broken leg, is lying on a rock ledge next to the water, while Voight prepares to scale the cliff. Reynolds likes this because he gets to rest his sore tailbone.

In order to get the effect of water ripples reflecting onto his face, a Xenotech Sunbrute lamp is beamed into a shallow pan of water, on the bottom of which are shards of broken mirror. When the water is agitated slightly, the reflection is most realistic. This is an old cinematic trick, but I've never seen it done with a xenon arc before.

"These xenon arcs are really helping us a lot," Vilmos observes. "It's a light-weight unit that one man can handle easily—even holding it while standing in the water. We brought them along, basically, because I knew we wouldn't be able to use Brute arcs on this show. Even if we had twenty more electricians we couldn't use the Brutes, because it's very hard to get them into position. Even the lighter Brutes are too heavy for us—and, of course, you couldn't put them into the water. It would be impossible."

The next sequence concentrates on Voight climbing the cliff. Though there is a stunt double available, he elects to do it himself—which will be a hairy adventure, because this is a vertical rock precipice about 200 feet high, with hand-holds few and far between. The camera, on a tripod, is set up on a rock ledge that can't be more than 18 inches wide and Vilmos clammers up to operate it himself.

The shot is made without incident and the crew shifts things around for the next set-up. It would be hard to describe just how difficult this is to do on terrain where there is hardly a square foot of level ground. It's a kind of grim ballet, scaling wet rocks and trying to

keep from falling into the river, while stepping gingerly around the cables which seem to be stretched everywhere.

"Working in this gorge is pretty tough," Boorman concedes. "The rocks are treacherous and slippery and people are falling all the time and bruising themselves. We've been very lucky not to have anything more serious. The actors and crew are in and out of the water continually. They're wet all day long. I don't remember when my feet were dry last. When you take your shoes off at night, you see this sort of soft, white, rough skin. Then you wake up in the morning and your shoes are still wet—so you grit your teeth and put them on again, and you put on your wet suit, which is cold, and you shiver for a little while. Then you come down to the water, and as soon as you've made that first plunge in, you're into another day and you don't think about it anymore."

"But the crew we've got is hand-picked and is made up of types that like this kind of thing. They love it. They're a terrific bunch of guys—always in the water, helping out with the shots. We've really got a very good spirit."

Inevitably, the time comes when I must leave this rocky paradise. The question arises as to how I'm going to be able to do that hand-over-hand scene up 1200 feet of rope, while carrying my 45 pounds of cameras, recorders, etc. Someone suggests that I send it up on the Rube Goldberg pulley-and-cable goodie, but I've just dropped my Hasselblad on the rocks (something now rattles around inside and I can't see anything through the viewfinder), so I'm a little bit wary of that scheme.

"It's fairly safe," I'm told, "even though we did lose a Panavision zoom lens off of it the other day. It fell into the drink—but there's nothing wrong with it that a couple of thousand dollars worth of repairs can't make right."

Reassuring!

In the end, I decide to risk the equipment on the cable thing, rather than buck for a heart attack while hauling all that gear by hand.

Up on top, the driver is waiting to take me back to Atlanta—back to civilization, with its crowded freeways, hints of smog, and overpowering skyscrapers. Somehow, compared to all this natural magnificence, it doesn't seem too appealing.

I take one last look down from the rim of Tallulah Gorge. Far below I can see the cast and crew of "DELIVERANCE" getting ready for the next set-up along the river.

They look like ants—very busy ants. But happy ones. ■

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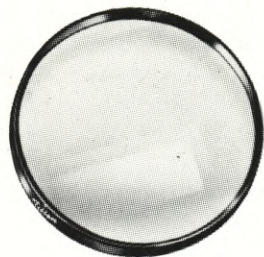
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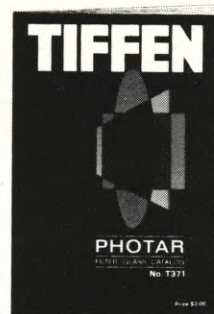
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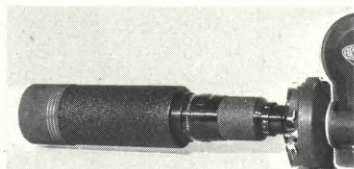


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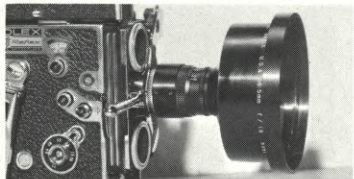
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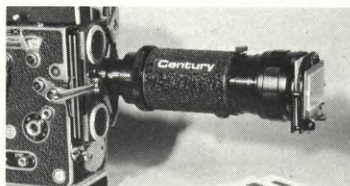
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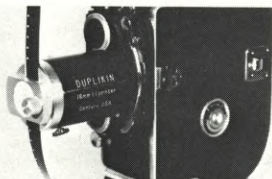
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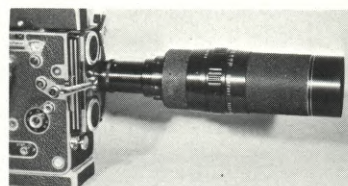
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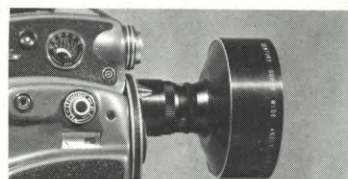
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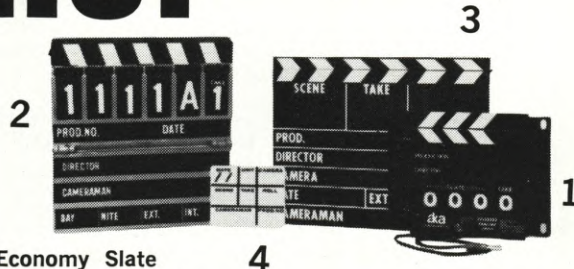
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QUESTIONS & ANSWERS

Conducted by CHARLES G. CLARKE, ASC.
and WALTER STRENGE, ASC.

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



Q Can you tell me how to "flash" my film to reduce contrast? Also, will Kodak come up with (a) ECO for 35mm; (b) an ECO with increased speed and (c) 7254 Negative with smaller grain structure?

A Flashing is best done in a laboratory either before or after principal photography. If flashed before, the film speed is increased about one-half stop. If done after the film has been exposed to a scene, the result is reduction of contrast and grain. This flashing is a delicate operation and should be done by a laboratory prepared for such work.

We wrote to Kodak for the latest data on your film speed questions. They answered: "When Eastman EKTA-CHROME Commercial 7255 was replaced by the new 7252, force-processing was made possible. This one stop increase may be all your reader may need. If he is after still more speed, he might try EKTACHROME EF 7242 (Tungsten) which is rated at EI 125. Prints from 7242 onto Ektachrome R Print Film, 7398, are of excellent quality. However, as usual, the higher EI film lacks the extra sharpness and lower contrast that make ECO preferred for professional production use as compared to news type shooting." Manufacturers are constantly trying to gain more speed, yet control the grain problem. As progress is made, they announce a new film or designate a new emulsion number to an improved product.

Q Can you suggest what filters should be used over windows when photographing natural interior scenes?

A For *day scenes* where the outside light must be changed to 3200° Kelvin, so that normal studio lights may be used inside, use the new, Roscovin plastic, #85. This material sticks to the windows without taping and may be obtained in single color sheets or rolls of 85N3, 85N6 and 85N9, which combine the neutral density filter with the normal 85. This selection provides maximum control over the intensity of the outside daylight so that inside illumina-

tion can be balanced to it.

If a *night effect* is desired, a blue plastic filter such as a Cine 26 Blue can be used over the windows. In this case, additional neutral density filters, such as the N3, N6, N9, may be needed to control the outside light. These filter materials can be obtained from most of the cine equipment firms.

Q I would like to know what is meant by "Apple Box" or "Half Apple" and how they are used? Also, do you know of any book that defines such terms used in cinematography?

A Apple boxes are a set of strong, open sided boxes of various sizes. Though just ordinary boxes, for lack of a better name they have been called "apple boxes". They are used to elevate various objects to a better position in relation to the camera. "Half apple" refers to one of the smaller sizes. *Film and its Techniques*, by Raymond Spottiswoode, Univ. of Calif. Press, contains an extensive glossary of terms used in the cinema.

Q What method is used to obtain a steady, level image when photographing subject matter at sound speed from a small boat on open water?

A The camera should be mounted on what is known as a gimbal tripod. This has a weighted, free-swinging pendulum suspended from the center of the head on which the camera is mounted. As the craft rolls with the sea, the tripod moves with the craft but the pendulum remains fairly perpendicular. When the pendulum swings too freely, some dampening can be effected by extending heavy rubber bands from the weighted end of the pendulum to each of the tripod legs.

For extremely low camera setups, an inverted gimbal should be used. Here the camera hangs in a cradle suspended from the universal joint at the top of the gimbal tripod. The camera's weight (with added weight, if necessary) keeps the camera level. Also, some manual control is usually necessary to stabilize the pendulum in either type of gimbal use described above.

"LES STANCES A' SOPHIE"

Continued from Page 776

large window. The Director of Photography used an ordinary sheet as a reflector to softly fill the shadows.

In regard to shooting available light interiors, I like to use whatever light may be coming through the windows and simply build it up, if necessary, with artificial light units to retain the same visual mood. I prefer to use an 85 filter on the lens and not put anything on the windows, so that the light coming through will be pure. But if the blue filters on the lamps cut down the quantity of light too much, or if there isn't enough room for the lights, then we sometimes have to use the other method.

Since the quality of lighting is such a delicate thing, some cinematographers are afraid to work in this way. But I had a very good understanding with my Director of Photography, Jean-Marc Ripert, on this film and we were willing to take the risks. Most of the time the results were a pleasant surprise.

The sequence in the hippie apartment was filmed in just such an actual place and there was no need to decorate it, because most of the decoration was already there. To give the lighting a bit of psychedelic quality, the cinematographer used colored paper over the lamps—blue, yellow, orange and green. It wasn't gelatin, but simply colored tissue paper. Of course, the heat of the lights would eventually burn through it, but in France we often improvise, with clips and wire and things, in order to overcome some of the problems.

Except for one scene that takes place in a car, the entire picture was shot with direct sound. That's one thing I believe in. I couldn't possibly shoot a picture that has the sound dubbed in, because it has no reality. There is a dead quality to it.

We used small quartz lights, mainly, in photographing the picture, minimizing the necessity of taking along large lighting equipment. It's possible now, because we have all the facilities, not to be lazy or have to depend upon heavy equipment.

As far as camera equipment is concerned, we tried, in the beginning, to use a blimped Eclair Cameflex, but the blimp was not good—so we switched to a blimped Arriflex. This was the lightest-weight camera that was solid and that we could rely upon, but I must say that I personally find the 400-foot load a drawback to my kind of directing, because I like to shoot a scene all the way through in one movement. ■

"MASTERS OF THE SKY"

Continued from Page 775

entire film, or one frame in 20,000. This is more critical than the customary ± 2 frame tolerance for lip sync. The music for each section was transferred onto 35mm mag stripe and this transfer was then treated and stored as if it were "original". If anything happened to this particular transfer, another one could be made, but it would invariably be a couple of frames faster or slower than the original transfer, since the $\frac{1}{4}$ " magnetic tape necessarily has to be transferred "open-loop". If anything happened to that particular original 35mm transfer, all the tedious labor of timing scene lengths would have to be redone. A synchronous 16mm mag track work copy was made from the 35mm transfer to be used in the Moviola, which could easily be replaced (to the exact frame length) if anything happened to it. (Incidentally, the picture original wasn't cut until after the final re-recording was completed.)

SOUND AND VISUAL EFFECTS

Sound effects played an important part in the film. About half were recorded originally and the balance was stock. Without the technical knowledge and infinite patience of Austin Beck of Audio Effects Company, the effects would not have been what they are. The film opens with what sounds like an explosion, and it invariably makes many of the audience jump, as they are caught off guard. In reality, it is the real sound of an M-18 smoke grenade being ignited, accompanied on the screen by a shot in free-fall looking up as smoke starts trailing off behind the skydivers, truly indicating the sense of speed that 125 mph is. This shot was photographed using a unique camera mount—the "reverse camera"—which is mounted 90° to the horizon, pointing straight up, and framed "blindly" by the camera-carrier who can't see what he is framing!

One parachuting stunt we pulled almost backfired. Terry Utter volunteered to steer his parachute into a thickly populated clump of trees about 70 feet tall for the purpose of filming a "tree landing". Since the distance from his feet to the top of the parachute measured about 50 feet, we figured that his chute would catch on the top branches and not let him touch the ground. We mounted a 16mm gun camera in the lines of his chute (pointing straight down at him) and ran a wire down one of the suspension lines to a battery pack, which Terry turned on as

he approached the trees. As he entered the branches, his chute snagged in about 15 different places, just as we planned, arresting his descent. What we didn't anticipate was that branches more than six inches in diameter could be so brittle that they would snap due to his weight, thereby letting him accelerate again toward the ground, dragging the broken tree branches down on top of him. He started falling once more and, just as his feet actually hit the ground, a major limb held his weight, preventing him from falling any further and saving him from injury.

In other parts of the film, a jumper lands on the dead-center target as the sound of a bomb goes off, a stampede of jumpers crowds out the door of a Twin Beechcraft as the last "heifer" gives out a "moo", a star crumbles apart to the sound of a bowling ball strike, two free-fallers penetrate an open parachute at speeds greater than 100 mph to the sound effect of a drag racer colliding into a brick wall, with velcro tape simulating the tearing sound. The final star-building sequence lasts three minutes on the screen, even though it took more than 40 jumps and four months to film, finishing with the world record 16-man star. Time-lapse photography (using both positive and negative images) of parachute landings is used to the sound of a Chinese fireworks display.

At one point, in editing a long piece of music to fit a short section of film, trouble was encountered. The music played well with the picture, but the music seemed never to end, and when it finally did, it ended in the wrong key! Since the final measure had to be used, in order to convey the feeling of musical completion, Austin and I lowered the key of that measure to the correct pitch by using a variable-speed Ampex recorder. This changed the timber and harmonic content of the note. Fortunately, it played well, as if it had been originally written and performed that way.

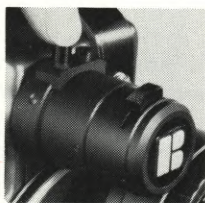
MASTERS OF THE SKY is presently being distributed theatrically by Jay Lovins in association with Ellman Enterprises in a film package entitled "ILLUSIONS". The 16mm version of MASTERS OF THE SKY is available for purchase and rental from Photo-Chuting Enterprises, 12619 S. Manor Dr., Hawthorne, Ca. 90250. (213) 676-1935 ■

(EDITOR'S NOTE: Space limitations preclude, at this time, an in-depth exposition of the photographic techniques employed by Carl Boenish in filming the exciting sport of skydiving. However, a comprehensive analysis of these procedures will be covered in a separate article to be published in an early issue of this journal.)

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"THE WINDSPLITTER"

Continued from Page 769

generator in Dallas. We used this generator during the production, but it had been reserved for another production that overlapped into ours, so we had to replace it with an oilfield generator. This one was noisy to say the least, but by running our main cable three blocks away, and around the corner we were able to reduce the noise to a workable level.

To go back for a moment, we had originally decided to shoot the film in 16mm and blow it up to 35mm for theatrical distribution. We had seen the success of this process using the older 7255 Eastman stock. However, that film had just been discontinued and was now replaced with the new 7252. We sent some test footage in for blow-ups, and we screened the results in a regular theater on a full-size screen in the 1:85:1 format. The results were disappointing to say the least. The 7255 blow-ups that we looked at were good, but the newer 7252 blow-ups were not playable. They were extremely grainy, and had poor color saturation.

Dave called an emergency meeting of the technical crew and myself. There was, of course, no alternative, so he immediately ordered 35mm camera equipment, and enough 35mm color negative to shoot the picture. This was to prove beneficial in other ways, too. Since much of the picture takes place at night, with night-for-night scenes, we were able to shoot with much less light than if we had used 16mm, and there was much more latitude in the negative film.

"THE WINDSPLITTER" was shot with two Arriflex cameras. One was blimped for the sync scenes, and the other was used as our wild camera. The main problem we had with this equipment was the limited run of the 400-foot magazines. A great deal of time was lost in what seemed to be constant reloading.

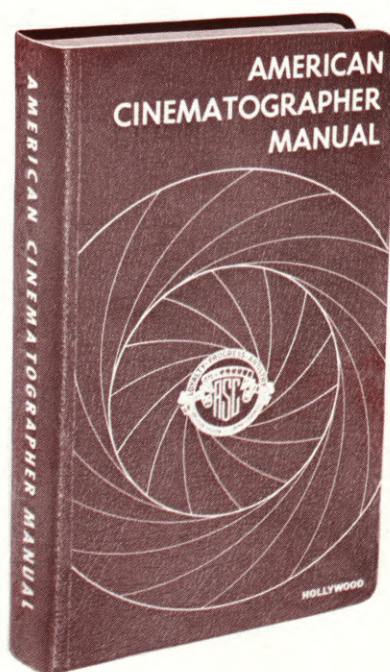
Because of our budget, and because of our location, we had to do a lot of improvising of equipment. Early in the film there is a scene in which the actor is being brought into town in a parade. I wanted to shoot the arrival of the parade down the main street from about thirty feet up, and then boom down as the parade approached. Well, of course, there was no studio crane available to us, so we got in touch with a sign erecting company in Houston, and found that they had a crane with a self-leveling platform on the end. We

Continued on Page 808

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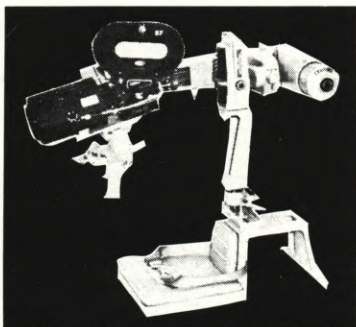
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"THE WINDSPLITTER"

Continued from Page 806

mounted the wild Arri on the platform, and Director of Photography Fred Kaplan and I went up. It worked great. The crane operator was able to boom us down perfectly, and the leveling platform kept us looking right down the street at the approaching parade.

To photograph the motorcycling sequences, and the highway chases we used a Chevelle convertible. The back seat was removed, and a standard tripod was locked down there. This camera car worked well for us, because some of the high-speed chases we photographed at normal speed without undercranking the camera. The Chevelle worked much better than a camera truck, because we could accelerate, and corner with the motorcycles.

There are also some spectacular riding shots from the point of view of the motorcycle rider. These scenes were shot with a camera actually behind the rider. I took over camera duties for these shots, since I had been riding bikes myself for some time. I sat behind the star, Jim McMullan, on the chopper. As we got up to speed, I stood up on the rear foot pegs and shot down over his shoulder. It got a little hairy during the cornering, but the results were worth it.

Fred Kaplan also shot from some precarious positions. There is one low-angle shot of the motorcycle with the boy and girl riding out on the highway. I wanted it shot with a wide-angle lens from as close to the road as possible. Fred shot this scene with his body hanging out of the back of a Volkswagen squareback, with his assistants holding onto him, and in this position he held the camera close to the road. This shot is great.

Fred and gaffer Charly Smith lit the entire picture with quartz lighting. Instead of brute arcs we use Mini-brutes. Because of our schedule, some of the scenes that take place in the courthouse had to be shot at night. One of the scenes that is supposed to be the next morning was shot with the Mini-brutes placed outside the windows to simulate sunlight. The courthouse has venetian blinds over the windows so, by opening them slightly, we were able to get a very nice morning sun effect with the light streaming in, and casting patterns on the wall.

While we were shooting, our film was sent to Deluxe Laboratories in Los Angeles for processing and workprinting. Because of time and budget we cut the show in 16mm. The lab made 16mm

reduction workprints and coded them with corresponding numbers to the 35mm negative. Although it was necessary for us to work this way on this particular show, it really has its drawbacks. I suppose the worst is the four or five-day delay in looking at dailies, or "weeklies" as we began to call them. Editorially it did not prove to be too much of a problem. I must give the credit for this to the editor Lars Giertz, my partner, and negative cutter Virginia Wood.

All of the sound units were cut in 16mm also. However, we did go to 35mm tracks for the musical score.

After the show was completed, we naturally wondered how it would be accepted. All of us on the project had become too close to it to judge it with any degree of objectivity. We were certainly proud of the final product, but we had to know how it would fare in relation to audiences, and other films.

So it was decided to premiere "THE WINDSPLITTER" at the Atlanta International Film Festival. And now that is all history. I know that for the film's producer, and certainly for myself, it was the high point of our endeavor when we walked up to the receiving platform to accept the Golden Tara award for "THE WINDSPLITTER". ■

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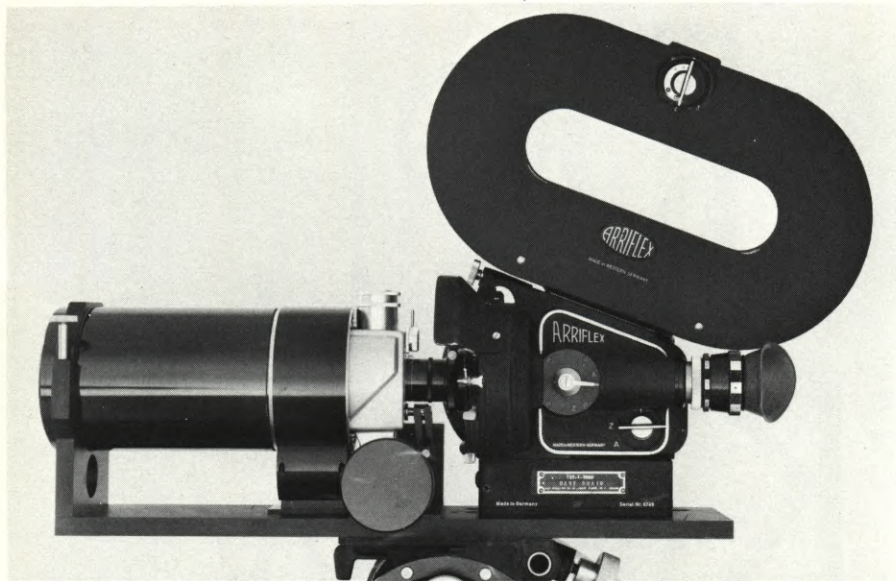
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The precise engineering that has gone into this equipment makes it virtually vibration-free. It can be used not only with the Arri 35, but with 16 mm. reflex cameras. Special accessories are available, such as the Questar Calibrated Follow-Focus Gauge, a Barlow lens to increase the size of a distant object on the film, a positive lens which will diminish the size while increasing the light on a nearby object, and an aerial-image groundglass.

David Quaid says that the prototype of the Questar Cinema Model was used in producing several of the award-winning films made by David Quaid Productions.

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ATLANTA FILM FESTIVAL

Continued from Page 761

chine that legend would have us believe is the "real" David Lean.

"REPLAY", produced by Concepts Unlimited, is a minor masterpiece that refutes the generation gap by proving that "the more things change, the more they remain the same." In eight minutes of expertly cut montage, the film shows how the so-called "far-out" mod fashions of today are simply a "replay" of yesteryear's styles (including bell-bottom slacks). It also points up how short memory can be between the generations. For example, an aging woman expresses disgust at the wild dancing of today, as the picture flashes back to frantic scenes of the mad charlestons that were the vogue when she was a girl. The picture ends on a note of hope as a little old lady—a *very* senior citizen—examines with fascinated admiration the colorful gear of a modern-day semi-hippie type. "You look just *wonderful*," she says, fingering his wild threads—then totters off down the street.

As good as the short films were, however, it is in the quality of the features shown that the Festival took a giant step forward this year. In addition to the two "major" features World Premiered ("FOOLS' PARADE" and "JOHNNY GOT HIS GUN"), there were two outstanding foreign features (the Czechoslovakian "MARKETA LAZAROVA" and "LES STANCES A' SOPHIE" from France), plus a surprising number of excellent features made by young film-makers. These included "THE WINDSPLITTER", "PUNISHMENT PARK" and "AN AMERICAN FREAK ILLUMINATION". "SHORT WAY 'ROUND", though produced and directed by veteran Hollywood film producer Laurence E. Mascott, was written (and starred in) by his young daughter, Holly, and co-produced by her equally young husband, William Lipper.

Allied Artists' "THE ANONYMOUS VENETIAN" was screened, for some unknown reason, out of competition. Despite its miserable and totally inappropriate title, it turned out to be a superbly photographed, mature and tender work filmed entirely on location in Venice. Though completely different in story line, the picture has much the same romantic, bittersweet appeal as "A MAN AND A WOMAN"—but it has been produced with much more professional (and much less self-conscious) technique.

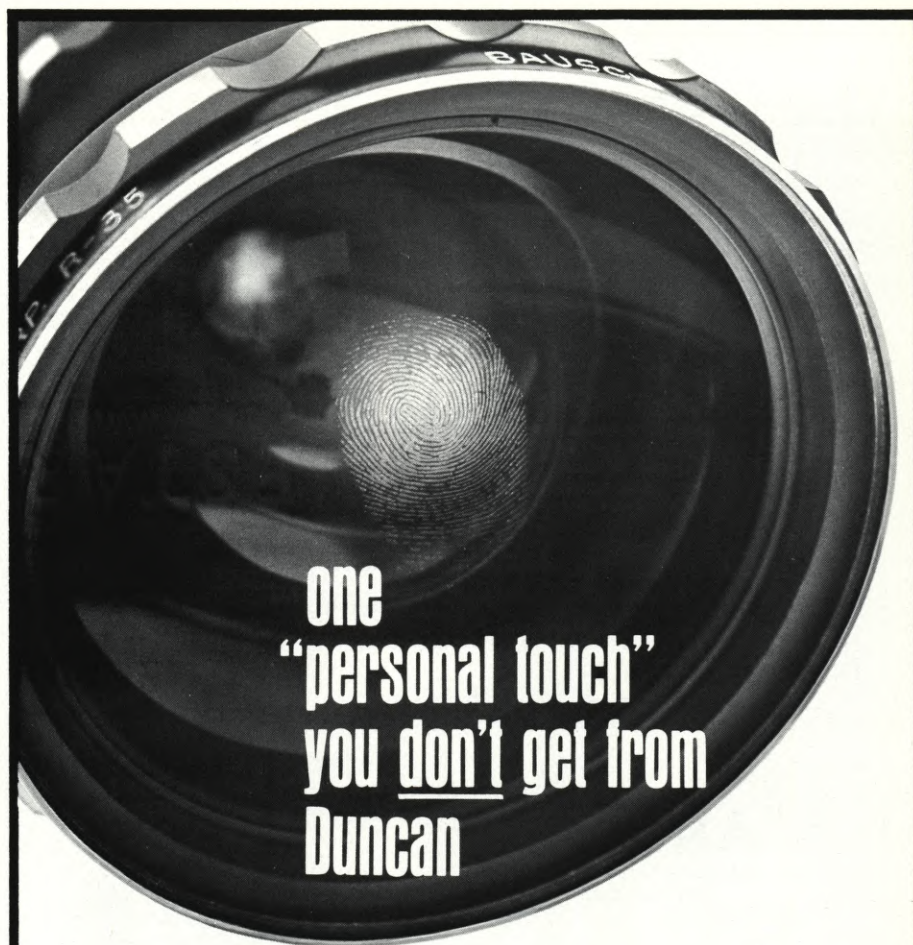
Rounding out the feature screenings were retrospective showings of two

American classic silent films. "THE VANISHING AMERICAN" (Paramount, 1926), which traces the evolution of the American Indian from pre-historic times to life on the reservation, indicates an astonishing amount of production value, considering when it was made. The Mary Pickford-Buddy Rogers romantic comedy, "MY BEST GIRL" (1927), is most notable for its smooth photography by Charles Rosher, ASC, one of the three still-living Charter Members of the American Society of Cinematographers.

A few of the features shown bear further comment. "LES STANCES A' SOPHIE", co-written and directed by Moshe Mizrahi, is a French-language production having to do with the miseries of a group of affluent middle-class Parisians. Though it is hard to work up sympathy for their various petty plights, the picture has been made with an extraordinary degree of technical skill. Of special merit is the magnificent color cinematography of Jean-Marc Ripert, which is all the more impressive in view of the fact that the entire film was shot on location (interiors included) in and around Paris. Ripert's expertise extends from semi-psychedelic mood lighting of a hippie pad to the sure handling of mixed light conditions inside a formal country house.

Peter Watkins' highly-controversial "PUNISHMENT PARK" is noteworthy for the staggering performances he managed to elicit from a cast composed mainly of non-professionals. Selecting "ordinary" people of basically opposed social and political views, he pitted them against each other in hypothetical situations of conflict and, by means of his own special chemistry, catalyzed them into action that goes far beyond mere acting. The film was also expertly photographed by Joan Churchill, a slender slip of a girl with an extensive documentary background.

Tobe Hooper's stunningly far-out "AN AMERICAN FREAK ILLUMINATION", despite its somewhat rambling and disjointed ad-libbed story line, is a *tour de force* of creative imagination combined with technical skill. It concerns a group of young dropouts living in a communal crash pad, while "doing their own thing" and seeking to communicate with each other. One of the characters never talks, but periodically freaks out, his fantasies being visualized in terms of some of the most original and technically intricate special effects ever put on film. Another character, inspired by an actual whim, drives his psychedelically painted car into an open



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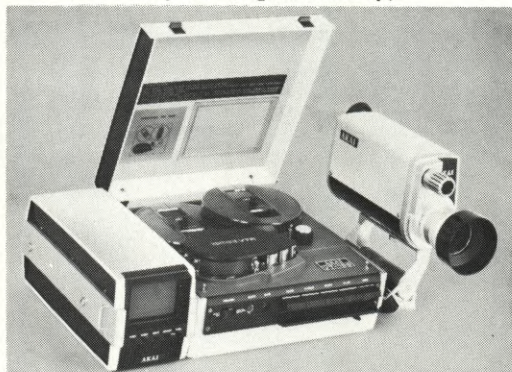
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field, breaks the windows with an axe, throws all of his worldly goods inside (including his clothes) and blows up the vehicle. The resultant two-stage explosion is of a magnitude exceeded only by the one that occurred at Hiroshima.

The blockbuster of the Festival, in terms of audience reaction, was, of course, Dalton Trumbo's "JOHNNY GOT HIS GUN". The World Premiere screening was a sellout—plus. It turned out that every one of the 1800 seats was filled, with about sixty people left seated on the steps of the balconies and in the aisles. Outside, approximately 500 more would-be viewers had to be turned away. The fire marshal announced that the screening could not begin until the steps and aisles were cleared. Nobody wanted to move, but a deadlock was averted when sixty seats were set up on the raised platform of the orchestra pit. Then the screening proceeded.

After it was over, many of the young people in the audience simply sat there for several minutes, stunned by the impact of what they had seen. The word spread fast and, on the following day, after Georgia Governor Jimmy Carter had requested a "command performance" repeat of the film for himself, his cabinet and all their ladies, a second screening of the film was scheduled for midnight, to follow the Awards Banquet. Though the decision had been a sudden one and there was little publicity, Symphony Hall was again filled to capacity. At both performances, the crowds gave Trumbo a standing ovation when he appeared.

Throughout the eight days and nights of the Festival, J. Hunter Todd's staff of eager beavers kept things running with a smoothness that is virtually non-existent at most other film festivals. There were, however, two classic snafus—neither of which, we hasten to add, were in any way the fault of Festival personnel.

In one case, what was supposedly a print of "THE VANISHING AMERICAN" arrived on the morning of the day it was scheduled to be shown at an evening screening. Upon giving the film a routine check, Todd discovered that someone at the Library of Congress had mistakenly sent the *master negative* of the feature, instead of the print. A quick call was made to Washington, someone from the embarrassed Library staff hand-carried the print of the picture to the airport and it was flown to Atlanta in time for the promised evening screening.

In the other case, one of the largest (and usually most efficient) film labora-

stories in Hollywood tardily shipped a print of "THE WINDSPLITTER" which arrived just a few hours before screening time. This feature had been photographed for projection in the 1.85 aspect ratio, but as the projectionist was cueing it up, he noticed that the fourth reel (though bearing a correctly-marked leader) was in the "squeezed" anamorphic format. A further check revealed that the maverick reel was actually part of "THE SONG OF NORWAY". With no time left to correct the situation, the super-cool Todd simply explained the boo-boo to the audience, substituted a showing of "AN AMERICAN FREAK ILLUMINATION" and invited the audience to attend a free screening of "THE WINDSPLITTER" (with all reels present) the next day.

The final event of the Festival was the formal Awards Presentation Banquet held in the Grand Ballroom of the Royal Coach Hotel and preceded by a cocktail party complete with live band and light show. The affair was conducted with the same flair and showmanship that had characterized the rest of the Festival. Todd and Bob Clarke of the King Family alternated in announcing the awards, which were actually presented by a stunning platoon of Georgia "peaches". The Serendipity Singers, courtesy of the Atlanta Playboy Club, provided spirited entertainment.

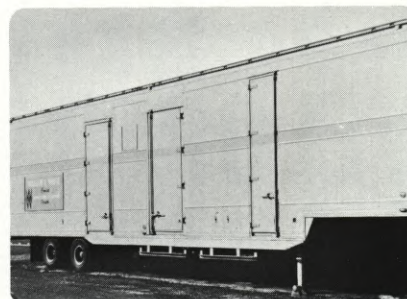
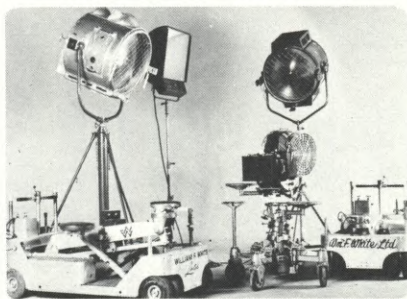
At 5 p.m. that evening, educational TV station WETV, linked with a 10-station Georgia network, had begun a seven-hour marathon recap of Festival highlights, including telecasts of some of the outstanding films. At 10 p.m. the programming went "live" to carry the presentation of the major awards at the Banquet.

At a time when most film festivals around the world are in some sort of deep trouble, it is, perhaps, worthwhile to analyze why the Atlanta event has risen to pre-eminence in only four short years and continues to grow bigger and better each year.

In an attempt to explain this, J. Hunter Todd was quoted recently as saying: "In Cannes, Berlin and London, screenings are scattered all over town and you run yourself crazy trying to see them. Everything here, with the exception of the cocktail parties and the formal awards banquet, is held at the Arts Center . . . everything, all the seminars, symposiums, daytime screenings and the premieres at night. New York and San Francisco have the only other major film festivals in this country and they're much smaller than ours. New York's is snobby . . . it's almost entirely
Continued on Page 834

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"JOHNNY GOT HIS GUN"

Continued from Page 763

much more quickly than we had expected because Donald Sutherland, who was cast rather late, had only two days off between finishing "ALEX IN WONDERLAND" and starting "KLUTE". We shot for a week, filming all of his scenes and some others that didn't involve him. Then we shut down for a week, with everyone on salary, in order to complete our preparation. That seemed like an unfortunate waste at the time, but it worked out so well for us that we intend to do it again.

That week gave us a chance to breathe and to study the film we had shot. On the basis of what we saw, we made some changes and replaced a few people. This turned out to be a great advantage.

**AN INTERVIEW WITH
 JULES BRENNER**

Director of Photography

QUESTION: In general terms, how would you describe your approach in photographing "Johnny . . . "?

BRENNER: Well, I would say I approached it with something bordering on reverence—to the work itself, that is, and to its creator. I saw my role as that of an instrument by which, or through which, Dalton Trumbo could transfer his inner images to a photographic emulsion. I have the greatest respect for the writer's art. I think it's one of the highest and most complex art forms. And Dalton . . . well, I doubt if I have to say much about where he stands in my scale of respect.

QUESTION: How, then, did you put this approach into practice?

BRENNER: Well, my first task was to get Dalton to "screen" his images for me. The projection medium was words and reactions to visual things. I made tests and we discussed various effects he had seen. Above all, I tried to define what he had been seeing in his mind's eye for the 32 years of his book's existence.

QUESTION: Were you able to do that? As you point out, the writer's art is a step or two away from the art of film. Did this cause any limitations or problems?

BRENNER: Let me define something, because I see a possible misinterpreta-

tion here: the images and the art of Dalton Trumbo were, up to now, those of a writer's. Now, however, he was embracing a new art, that of directing. So he, himself, was a really immediate interpreter of his original material. It made the creative situation rather singular, particularly since he's one of the most successful screenwriters of our time. Visual definitions, then, formed very quickly, though far more ideas were conceived and considered than were ultimately used. We were going through that period in the making of a film where the decisions that determine its overall style are formed. And I must say, we were all in very close contact at this point. The importance of communication is formidable.

QUESTION: Could you give an example of some of the ideas that were formed at this time but not used? You also mentioned making tests.

BRENNER: Yes. One of our biggest concerns was to separate the three distinct styles that were indicated in the script: the present-day reality of 1917, which was to be in black and white, the "color of memory" and "the color of fantasy" as Dalton put it. Well, for the black and white, my original idea was to make the early battlefield sequences look like they might have if they were photographed with the Ortho and blue-sensitive film of the period, with a gradual upgrading as time progressed. The tests I made manipulated the grain structure through generation printing, and the spectral sensitivity was altered with filtration. All of which made gradual transitions very controllable. I thought the tests were very successful, but the idea was abandoned.

QUESTION: Why?

BRENNER: Principally because there was still a chance at that time that we would go all color.

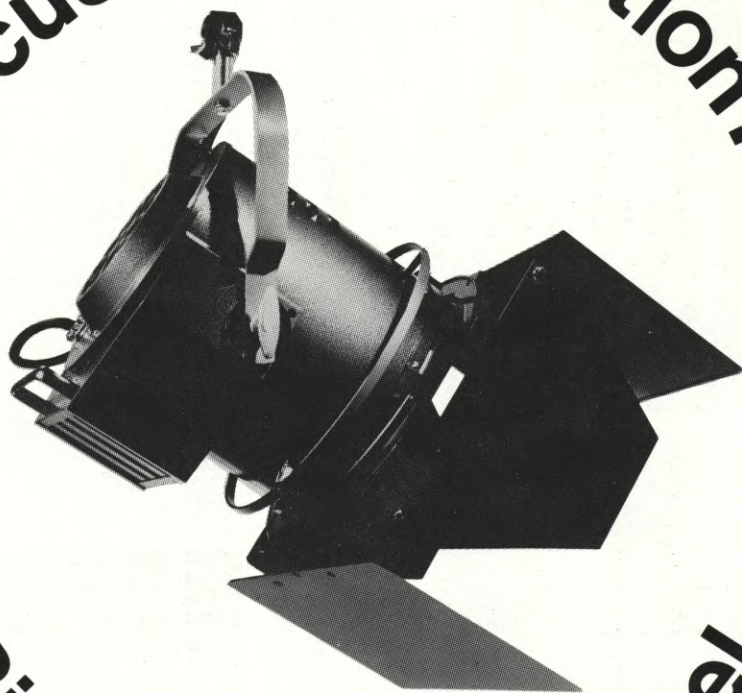
QUESTION: Can you recall any other ideas that were abandoned?

BRENNER: The rosettes.

QUESTION: The "rosettes"?

BRENNER: It wasn't a purely photographic idea, but it certainly had photographic applications. The central character's stitches formed a rosette pattern. We considered repeating the design subtly throughout the film: in the wallpaper, in a floor pattern, and so on. In the "Poker scene" I even did a shot

focus in any position!



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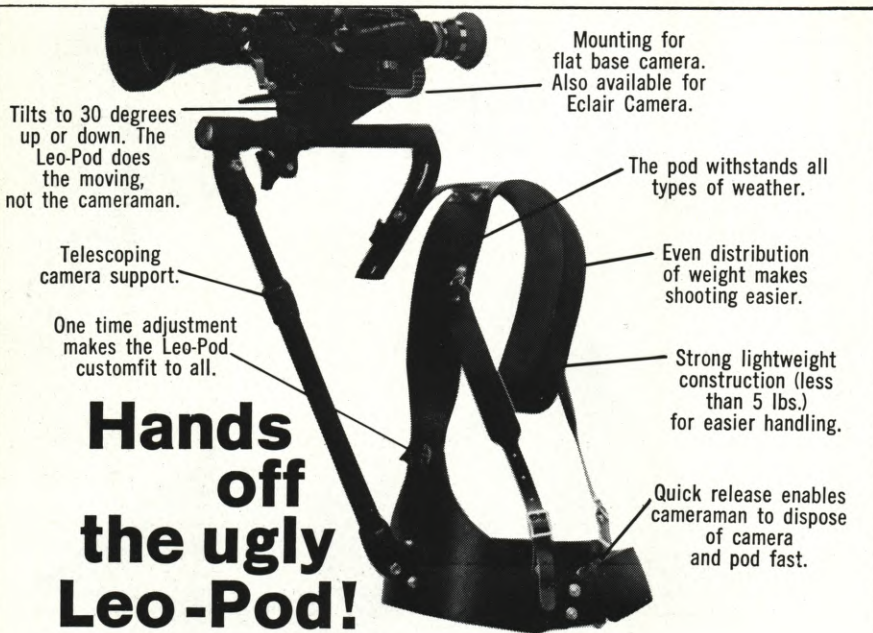
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looking directly down on Christ and the poker players in a circular "rosette" pattern. It was abandoned, though.

QUESTION: For what reason?

BRENNER: Well, since the reason wasn't all mine, I can only speak for myself. I can certainly use it to illustrate a general attitude I have—namely, that no idea, trick, device or symbol, however stimulating in a visual sense, can be successfully imposed on the material at hand. The rosettes did, indeed, arise from the material itself, and might have been an interesting nuance, but it was borderline and Dalton chose to forego it.

QUESTION: That's sort of self-explanatory, but could you elaborate a little more on the use of what you're calling "tricks"?

BRENNER: Let's call them "visual devices"... even, "visual tools". The cinematographer's got to have them all at his fingertips whether they're original to him or not. But it's the application of them that separates the men from the boys. Their application is a matter of taste, discipline and creative impulse. It's got to flow from the subject matter. If the photographic "idea" of a scene echoes and enhances the emotional level, or if it imparts an emotionality that is germane to the subject, then it is working and it is proper. But if it simply draws its own attention, it's risky at best, and quite possibly very wrong, if not downright amateurish!

QUESTION: How can you tell which is which? Aren't risks sometimes necessary?

BRENNER: There are different kinds of risks. So often the most creatively photographed scenes are risky ones, technically. That is, they have an element of experimentation. The risks I'm putting down are those that are risky because they are done for the sake of exhibitionism. It's in the intent. If the cameraman is honest and disciplined, he can tell which is which.

QUESTION: You don't refrain, then, from taking photographic risks?

BRENNER: Not if we understand the term correctly. No risk or experiment is made in ignorance. It must be based on all your previous experience and knowledge. To me, creativity is a continuous process of experimentation, reaching into an unknown or unfamiliar area,

trying this, testing that, leaning hard on the parameters of the photographic process. It's exciting. And Kodak has given us such a wonderful emulsion to do this with.

QUESTION: What other considerations do you make in deciding how to photograph a given scene?

BRENNER: Of great importance is the visual continuity of a film. If you consider each scene without regard for the look and feel of the ones that precede and progress from it, you are failing one of your paramount responsibilities as a cinematographer. Then, too, a supremely vital principle in deciding on a photographic solution for a particular scene is nature herself; that is to say, what light does when it's not created artificially and thence controlled and manipulated. That, of course, has to be done a great lot of the time. But one of the things in life that stimulates me to an almost immoderate degree is light, in all its natural, accidental, spontaneous and variegated possibilities. It's a tremendous turn-on and a basis for my photography.

QUESTION: Could you give me an example of this in "Johnny . . . "?

BRENNER: Sure, but let me think about it for a minute. Yeah. The very first scene on our shooting schedule was Christ in the woodshed. As in most cases, we were using a "real" set, in this case a tiny workshop in the backyard of one of Dalton's old neighbors in Highland Park. The ceiling sloped to a maximum height of around 7½ feet. It was really tiny. Some fun to move a Panavision camera around in! Well, I took a look at how light entered the shed and what it did from there. It was fascinating. Sunlight hit the floor and bounced up with a very soft but directional source look. It gave me an impression of the intense light reflecting off dry, bright desert sand, which was peculiarly consistent with the Palestinian setting our robed and bearded Christ in the person of Donald Sutherland suggested. To bring up the intensity within the capability of our Panavision lenses, and for control, I placed as many as four 4-K Mole soft-light heads on the floor for my key! I'm not certain of this, but Don Sutherland may be the first actor who ever played a scene while literally stepping around his key light.

QUESTION: A considerable portion of the film is in black and white. Did you vary or alter your technique in any way for these sequences?

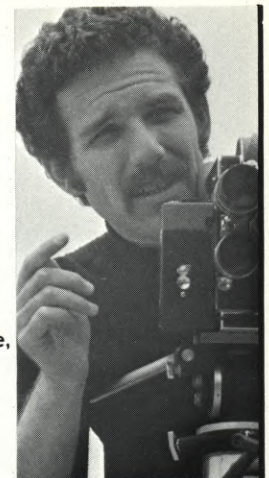
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BRENNER: Well, as I indicated earlier, there was some vacillation on the subject of black and white. It was so indicated in the script, but for various reasons, it was difficult to make a firm commitment. So we photographed it in the "apparently" and "allegedly" logical way, in color, so that we could defer the decision. But I'm not so sure that is the best way. It's like not committing to an aspect ratio and thereby not using a hard matte. I know there are several schools of thought on this, but it can be a tremendous advantage to the cameraman to use the hard matte, even if it is an irrevocable decision. But to get back to your question, if we could have known then what we know now, I might have shot on black and white stock, employed different film stocks, and definitely altered my technique. As it was, I had to shoot for color and, in fact, for a large part of our filming was assured that the film would be all color, which is how we saw our dailies. There were certain stylistic changes apart from the black and white/color differential. The monotone of the hospital room, the depression of the subject matter, the loneliness and despair that pervade these scenes, certainly affected my photography. So in that sense, you might say there was an alteration. There's one other tremendous factor that affected the black and white sections of the film . . . a purely technical one: In order to obtain a good, controllable black and white from a color negative you must first make a very flat fine grain and an equally flat, underexposed dupe negative. Part of the reason for this is that any density will act, as timer Roger Richardson of CFI puts it, as a filter. Highlight areas will produce purple, middle areas green, or some such color, because each density reaches a different layer of color emulsion in the printing stages. This was clearly indicated in some of the tests we made. But despite knowing all that, less than ideally flat fine grains and dupe negs were made. The result is very inconsistent black and white. So, a lot of the final look of this part of the picture is out of my hands. It will depend on how well controlled the corrections will be. I know that sounds very resigned. But it just indicates how collaborative our medium is. We're limited, I suppose, by laboratory technology, and on this point, I know they will do the best their technology allows them. What I'm anticipating is a certain gutty quality that will work well for the mood of the picture. I would like to add, too, that lighting for color, today, is not all that different from the days of black and white as it once was.



Lighting ratios, fill intensity, may not be as extreme, but it's a far cry from the early premise of flatsville lighting.

QUESTION: Did you employ any unusual techniques in the filming of "Johnny...?"

BRENNER: I used fog filters, color correction filters, gamma control, and a number of other things and, for the most part, I hope the viewer won't be aware of any of it.

QUESTION: Then why do it?

BRENNER: To achieve an emotional response. Anything that triggers technical analysis intrudes on that goal.

QUESTION: Can you give me any examples of that?

BRENNER: Well, without mentioning titles or names, I've seen entire pictures shot through a fog filter so heavy you thought you were wearing nylon gauze over your eyes. I'm certainly not against the use of the fog filter, but it's the overuse, as with so many things, that blows its effectiveness. A cameraman who uses a fog filter for his entire picture is like a dentist who shoots all your gums full of novocaine. It may be proper if he's going to work your entire mouth. But it's unnecessarily deadening if he's only got one tooth to drill.

QUESTION: You mentioned the "color of memory" and the "color of fantasy" before. I didn't mean to bypass that, but we got off on something else. Just how did you accomplish that distinction in cinematographic terms?

BRENNER: We originally considered juxtaposing colors in a symbolically ordered continuity for the fantasy sequences, to define them and to set them apart. In the final analysis, though, we underplayed this idea tremendously. We all sort of agreed that the demarcation between memory and fantasy was quite clear enough in the context and texture of the scenes themselves. But if you are looking for it, you might find, in the fantasy sequences, a touch of blue here, a splash of green or gold there. But I tried to keep it quite subtle.

QUESTION: Could you comment on the cinematographic aspects of some specific scenes? For instance, the white limbo scene?

BRENNER: Yes. That's a good example of one of the most heartbreaking occur-



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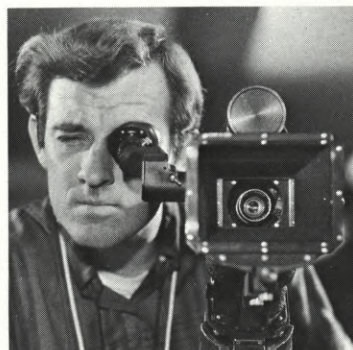
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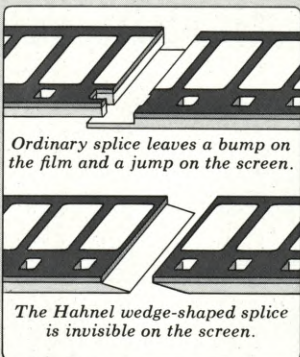
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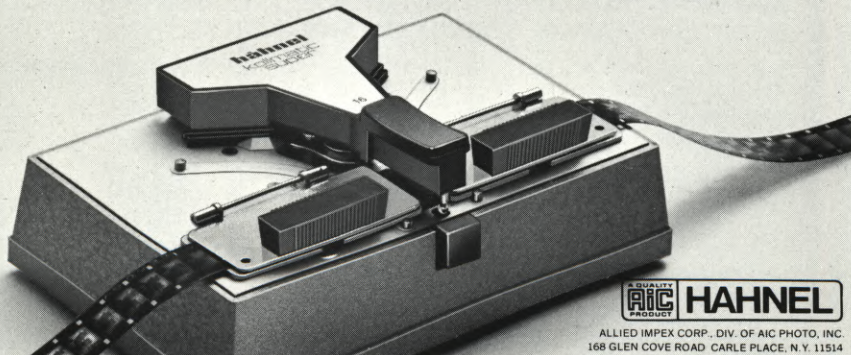


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ences in filmmaking: resigning yourself to the loss of some of your favorite "babies" for the benefit of editorial requirements. I felt the scene, in its original form, and as photographed, was sort of a surreal liturgy of sublime heresy. The shot was made on Chapman's Titan crane with extender for the widest, highest sweep we could get. The great length of the crane arm magnifies any error, so the move was really critical. It was done in two parts bridged, according to the initial plan, by a cascade of colored, blinking lights reflected in an outrageously gaudy plastic cross. The parts you see in the film, though, are the beginning and end of that shot. The complete version will just have to go on my personal reel.

QUESTION: What about the "Carnival Scene"? Any unusual photographic methods employed here?

BRENNER: Oddly enough, I think this scene is related to the one we've just discussed, and not simply because it's part of the fantasy. It's a limbo also, only this time the setting is in nature and not a white "cyc". If there's a greater natural limbo than El Mirage Dry Lake, I haven't seen it. Because I felt that front light would destroy the open vagueness of detail I wanted for the scene, I shot it in backlight, with very little fill from gold reflectors, and let the background do a little exploding.

QUESTION: From desert to underwater: what were your problems in shooting those eerily submerged skeletons?

BRENNER: How much space do you have for the answer to that one? In fact—if I can throw in a little plug—the underwater sequence is the subject of an entire article that will appear in the October issue of *Skin Diver* magazine. Briefly, though, let me answer it by saying that, in a sense, we were again working in a limbo—this time a green watery one. I decided against the employment of artificial underwater lighting since the aquiline monotone of natural light produced quite the mood I was after. It was largely a matter of finding the right depth to work in, which turned out to be 28 feet. Water is sort of like working inside a great big filter. The deeper you go, the more filtration you get. Reds disappear almost immediately, then yellows go, until you have only the blue-green monochrome of the water itself. So depth is a means of controlling the

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*degree of color you want. I kept the 85
filter on for this so that I could better
judge the effect on film. That, and the
CCR filters are other means of control.
Lights are, of course, the only means to
restore the full spectrum of color to the
underwater world, but I didn't want to
do that here. For camera and housing I
used the Arri in Birns and Sawyer's
underwater housing. The lens was an
18mm.*

QUESTION: What of the night garden
scene?

BRENNER: *I think the thing that gives
this scene its unusual look, beside Hal
Michelson's unique set, is the velvet
black limbo of night. Ordinarily, in
shooting night-for-night in a purely real-
istic scene, I try to avoid the limbo
look, since we don't really see it that
way, and the effect of super-fast films
and lenses that allow natural night
lighting to provide the full exposure
really turns me on. But for a stylistic*

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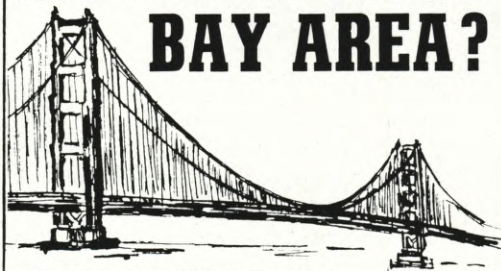
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look, night is a great opportunity to exclude the extraneous and disclose only the elements that fit the design. It's almost like the cartoonist who draws only the figures and props he needs in order to tell you his story or joke. This detailing with light, and a little mixing of greens, blues and normal light, were the photographic manipulations I employed here.

QUESTION: Was this repetition of different kinds of limbos intended as a symbolic device?

BRENNER: No. It's just a pattern that evolved without any pre-planning. And, though it reoccurs in some of the fantasy sequences, it is certainly not used in all. That is not to say, a symbolic reaction isn't valid, but that would have to be a reaction on the part of the viewer. I don't think it's for me to delineate symbols verbally, unless it's a very specific one, like the rosette pattern. Otherwise, it's far too subjective a thing. What's important in this context, I think, is that the "color of fantasy" portions of "Johnny..." liberated me, to a different degree in each application, from the purely literal. But no pattern or symbolic device was imposed.

QUESTION: The "memory" sections of the film, then, were more "literal" as you put it?

BRENNER: Yes, but not nearly so as the "present day reality" sections in black and white. I mean, these two qualities are different in more than the way they're printed. Memory contains a portion of fantasy too, I think. In any case, the distinction between those two states is not always so clear cut. What I sought here was a sort of idealized reality, and so there is a softening of the image, and a warmth in many of these scenes. This is where I used warming filters, a very light fog effect, soft lighting, and a slight shift in the color contrast. And, again, these qualities of idealization and warmth were manifest in the content of the scenes themselves, so I tried to reflect them visually. ■

QUESTION: Is there any final comment you'd like to make with regard to your experience on this film?

BRENNER: Just that it was the most profound privilege of my life, both from the standpoint of what the picture expresses thematically, and that of working with its author, Dalton Trumbo. It was an exhilarating experience. ■

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FILM '71

Continued from Page 791

belief that 35mm film would prevail for a long time for theatrical feature production, but 16mm and tape would make further advances in TV.

Some results of technological development were in evidence in CPD's booth. In mechanics, the prototype CP-16 newsfilm camera, based on the Auricon Cinevoice mechanism and housed in a magnesium body with a built-in ni-cad battery driving a crystal-controlled motor. All-up weight with 400 feet of film in quick-change magazine and short-finder 10-to-1 zoom lens is 13 pounds.

In optics, there was the Canon K-35 Macro Zoom lens developed to the specifications of the Association of Motion Picture & TV Producers Research Center. This 25-120mm T/2.8 optic covers the Academy frame, and has an independent macro focusing control that can focus as close as 2 inches from the front glass. It was demonstrated mounted on an SPR camera. In electronics, there were crystal-controlled motors for Arri 35 IIc, and Mitchell NC/BNC and MkII.

Other well-known personalities contributing to the forum included a paper by Austin Coma of Eclair-Debrie, Paris, describing the development of the ultra-compact Eclair ACL 16mm silent-running camera; a paper on the Arriflex 35BL hand-held silent-running 35mm camera; a contribution setting out in detail the myriad of considerations entering into the design of a motion picture camera by Dr. Jotzoff of Bolex; and a short history of the Beaulieu camera manufacturing activities, written by Marcel Beaulieu. Unfortunately his prototype newsfilm camera for stripe-sound, which was promised in the paper and seems to have some advanced features, was not exhibited.

In a conference and exhibition of this scope, it is manifestly impossible to cover all the papers and exhibits; the best we can do is pick out some of the highlights of special interest to cinematographers.

In the Cintron booth, Discovery Technology Corp. of New York was demonstrating a power-zoom position-servo system for the 25-250mm Angenieux lens, controlled by a small, hand-held computer. Its special feature is that the zoom *time* can be pre-set over any pair of selected focal-length limits, and this set time will be maintained no matter how much the zoom range is varied. Thus, for instance, it is possible

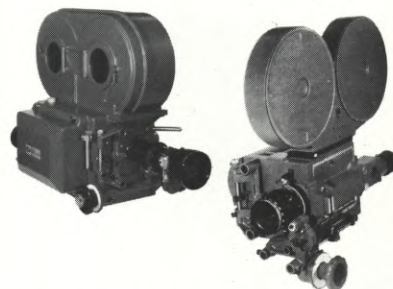
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The same firm also showed a Snorkel-Scope low-angle device for attaching to a 35mm Arriflex, which lowers the camera's viewpoint by 20 inches, and lets the camera move through normally inaccessible spaces. The field of view is equivalent to a 25mm lens on the camera, and the maximum aperture is T/5.6.

In Europe, an increasing amount of filming for TV is being done on 16mm film. This is particularly true of filming done by broadcasters for their own use. A paper read at the conference, for instance, stated that 95% of filming done by the BBC was on the smaller gauge. The BBC Research Department has been suggesting for some time that significant improvements in sharpness and tone reproduction could be achieved by scanning color negative film in a telecine and reversing the signals electronically, and presented a paper analysing the techniques involved, particularly from the signal-to-noise point of view. They concluded that flying-spot telecines fitted with the latest high-brightness tubes are more favorable than plumbicon telecines for this type of work. Apart from the advantages already mentioned—and the long tone-range obtainable from the low-contrast negative is particularly important when trying to match film inserts into elec-

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tronic camera productions—there is significantly less degradation of shadow detail, as both optical flare and noise in the dense parts of the film from the telecine will mainly affect the highlights, where they are far less disturbing. Color reproduction, sharpness, granularity and steadiness are far superior to those obtained from positive prints or reversal films.

The BBC will shortly start to use this method in programing. It is expected that a black and white workprint will be made for cutting and dubbing, with the neg finally cut to match in the normal way. Tests have shown that, when using negative film on telecine, far less scene-to-scene color and density correction is required than for normal printing. These corrections may be made electronically by changing the gain and sit of the red, blue and green signals. It is expected that in the use of negative film on TV, sufficient time will be available for reviewing the film and for recording the desired grading corrections in some way; the film will then be run with automatic pre-programed corrections being applied as it is either being transmitted or transferred to videotape. The neg will, of course, remain available for making conventional prints for syndication etc.

During the convention, a party of delegates was invited to tour the BBC Research Department's facilities at Kingswood Warren. The high-spot was undoubtedly a comparative demonstration of an experimental "black box" device for automatically improving poor quality color film, particularly newsfilm; much of it received from abroad is a multi-generation dupe or kinescope, possibly sent by satellite, and often received too late for it to be previewed to see whether any corrections for color-casts etc. could be made. The device removed most color-casts within one field interval, and stretched the signal to occupy a full contrast range when necessary. C.B.B. Wood, who was largely responsible for developing the device, stated that it was not intended for use on first-grade film, but "would at least upgrade third-rate film to second-rate." The demonstration showed that it did better than this. The most noticeable improvement was the removal of color-casts in the shadow parts of the scene, but even occasional fogging was largely removed. The device seems to ensure that the darkest and lightest parts of each scene are reproduced as neutral, and at given levels (which can be pre-set). In addition, the overall scene content is probably integrated towards grey. To quote Mr. Wood "The black box changes the parameters of the

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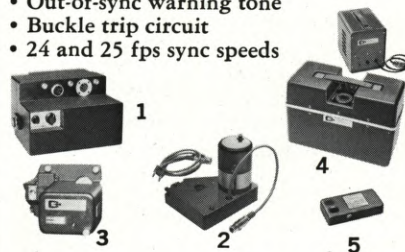
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16mm is also being used in England for the production of some TV series by independent organizations. Thus the "Jason King" series has just been completed by Monty Berman at the EMI Elstree Studios for I.T.C., using blimped Eclair NPR cameras fitted with Add-a-Vision TV viewfinders. One of these

The equipment has been operating satisfactorily for 8 months, and is also being used on "THE PROTECTORS" series just starting at Elstree, with modifications to accommodate back-projection process photography.

Other interesting film production exhibits on various booths included the silent, hand-held Arri 35BL shown by Rank; a Ilc Arri fitted with a Dynalens and TV finder, and a transportable 35mm projector capable of running double-headed picture and mag track for viewing rushes on location, shown by Samcine; the lightweight Xenotech Sunbrutes demonstrated by Bell & Howell (who distribute it in the Eastern Hemisphere), and several items in the 16mm professional field: the Jensen Multisync accessory for converting the Arri 16BL to crystal-control without internal modifications, and a plug-in crystal motor for the Arri 16St (Rank); a new version of the Beaulieu R16B with a built-in, variable-speed power zoom, fitted with a "focus" button which opens the lens up to full aperture and zooms it out at full speed to its longest focal length; a modification to the Canon Scoopic 16mm camera to generate a pilot-tone for sync shooting, in conjunction with a cassette tape recorder (Visnews Facilities); and two prototype image intensifiers from Old Delft: a three-stage unit with a gain of about 35,000, which can be used for news and surveillance filming with only starlight for illumination, and uses an 18mm tube of their own design in conjunction with a special relay lens which largely eliminates the pincushion distortion inherent in intensifier tubes; and a very compact single-stage unit, having a gain of five stops (or 32x) which can be screwed straight into a

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C-mount on a reflex camera, with the camera's lens screwed into the front of the intensifier. With this latter unit, it is a matter of speculation whether the gain in sensitivity is worth trading for the loss of color information (the image is black and green).

New items from Kodak were a prototype hot-wire splicer for polyester-based films, making neat overlap joins without the need for scraping the coating off black and white or magnetic films (though the volatile couplers in color film mean that this has to be scraped), and a new series of Ektalux 85 A/D conversion filters cast from a new resin that can be dyed and worked to the exacting standards demanded for on-camera use.

For the smaller 16mm production outfit, several double-band projectors were on show; these allow mag track to be run in interlock with the picture for preview and dubbing purposes, and are usually fitted with facilities for recording and transferring between the various tracks, such as center or edge on the magnetic film, or optical or mag track on the picture film. Examples of this type were shown by Rank (Bauer P6 Studio) and Heyden & Son (Prevost P16DB, with Xenon lamphouse) and a most interesting newcomer from Double Band Developments, based on the Hokusin Polestar projector: this had the optional facility of fitting a Dolby noise-reduction circuit board in the amplifiers, which could be used to both improve the s/n ratio by 5db and reduce distortion to 0.1%. The magnetic film unit is also available as a rack-mounted recorder-reproducer, which can be interlocked, singly or in combination, with the projector.

Several theater projection machines with xenon lamphouses were shown for 16mm, 35mm and 35/70mm operation. The Cinemeccanica Victoria 9 prototype uses modular construction for quick and easy servicing and the mechanism and lamphouses can be tilted while the spool boxes remain upright, thus providing better stability and reducing the clearance needed in the projection booth.

It is impossible to do justice to all the many excellent papers presented at the conference; in the space available one can only mention some highlights. The paper "Motion-Picture Technology and System Dynamics" by Wilton Holm, director of the AMPTP Research Center and President of the SMPTE, considered the Research Center's approach to technological planning as well as to the business side of the industry, and announced that a new system of

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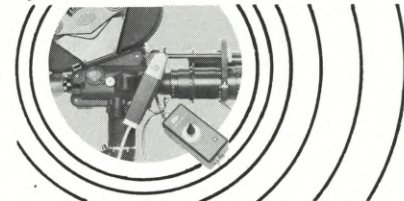
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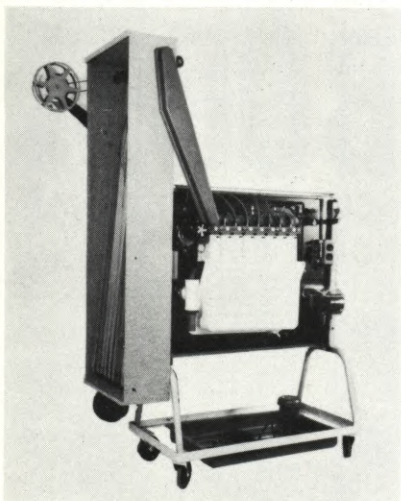


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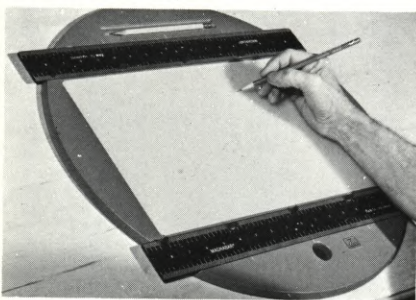
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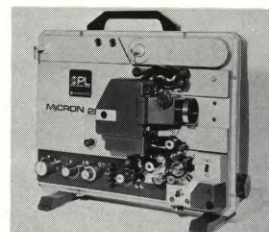
hi-fi optical stereophonic sound will soon be available. This system will be compatible, in that the theatres which do not wish to invest the few hundred dollars to have optical stereo sound could play the new track on existing optical sound systems and still have monophonic sound of better quality than at present. He also mentioned that a new electronic system for composite photography would soon be available; it is said to be a simple, foolproof method for doing on film what is now known as travelling matte work, allowing backgrounds shot anywhere in the world to be combined with foreground photography on the stage. The director will be able to view his composite scene, in color, on an electronic monitor as he shoots it, and he can have immediate playback on tape, if he desires, and can have next-day dailies on color film. He further dealt with the ways technology could help in making business decisions, such as predicting the marketability of a motion-picture before it is photographed.

A new approach to the production of television programs was examined in J. Flaherty and W. H. Butler's paper "Why Use Film?", proposing a new, single electronic camera technique used in the manner of a film camera for shot-by-shot recording, and in an associated paper by W. H. Butler of CMX Systems who described an electronic post-production system that permits semi-automatic editing of tapes shot in this manner. This relies on the use of random-access magnetic disc pack recorders to store information scene-by-scene for editing, which is done with the aid of a small computer. The computer is used as a bookkeeper to keep track of the location of all frames within the disc packs, and to memorize all decisions made by the program editor. Working with a character generator and a light pen, the computer also presents a list of all scenes loaded into the packs, and a list of splice-decisions that have been made by the editor, and other data.

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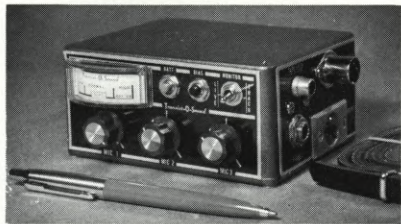
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Dr. R. Theile, of IRT, Munich, presented a paper comparing electronic camera quality with various types of televised film, including 35mm neg-pos, 16mm neg-pos and reversal, and Super-8. Four typical scenes were taken simultaneously on a rig holding a TV camera, a 35mm Arriflex, three 16mm Arri's and two Super-8 cameras loaded with the various stocks, and the results were transferred to tape and shown on color monitors in the lecture hall. An interesting point was that with the particular equipment used, the Super-8 quality (albeit on a slow film, Kodachrome II), was better than that produced by the 16mm neg/pos process. A later paper by C.B.B. Wood of the BBC (already mentioned above) showed the improvement available from a piece of the same film televised as a negative and electronically reversed.

Dan Zwick of Eastman Kodak described a simple conversion kit his company had developed to allow a small station to preview color film by optical projection and get a good approximation on how it will look on color TV. The kit consists of a blue filter to be placed over the projection lens to raise the color temperature to that approximating the film scanner, and a piece of ultra-high-gain Ektalite screen on which the picture is viewed at a good contrast even when overhead fluorescent lighting is switched on to provide a reference background field. The need for standardized preview facilities was also dealt with by CBC's John Lant, who described his company's achievements in 16mm color production.

A thorough paper by the BBC Research Labs dealt with the problems of achieving image steadiness in 16mm TV presentation.

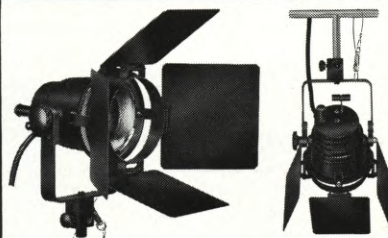
On the last day Milton Forman considered some "New Trends in Stage Design", and cinematographer Fouad Said dealt with the equipment and logistics of location filming.

All in all, it was a most stimulating conference.

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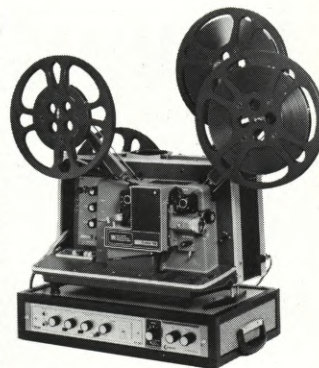
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CINEMA WORKSHOP

Continued from Page 750

resolver is employed (such as a Nagra SLO) that senses the presence or absence of the pilotone signal on the ¼" tape. When the pilotone is absent, a 1000 Hz signal is recorded on a 100 mil control track on the full coat. (This is in addition to the standard 200 mil track.) The instant the pilotone signal is sensed, this 1000 Hz signal ceases. Thus on the full coat, sync is determined by the last fogged frame and the end of the 1000 Hz tone on the control track. This is identical to the American system, except that the beep is in the control track, leaving an unadulterated sound track. In addition, the editor is aware of every portion of the sound track that has camera coverage. With the advent of crystal sync equipment and radio slating, the control track concept, in a newer form, is beginning to gain renewed popularity. ■

"FREAK ILLUMINATION"

Continued from Page 777

shot with the Eclair, an Arri S, a Bolex, and two Arri BL's. All of these cameras were used for separate sequences, and the footage successfully intercut. "Primary" lenses used were the 12-to-120 Angenieux zoom, the 5.7mm Kinoptic, and several Nikon lenses using a Nikon to "C" mount adapter. The film was composed for projection in the 1.85:1 aspect ratio.

The first "abstract" scene in the film involves a paper airplane lying in the street near the curb, which lifts off under power from a gust of wind, and flies through the woods. It crashes into the house in which the kids live, exploding into flaming wreckage and falling to the sidewalk below. Several near identical models of the paper plane were used. One was "flown" from a black thread fastened to a long cane pole. The pole's length provided a shallow arc in the plane's flight. A second model, with a short soda-straw built in "flew" down a mono-filament for the collision with the white frame house. A third was exploded by fuse and triggered to fall past the camera. Duplicates were used for re-takes from other angles. The plane's flight was shot in slow motion to extend the length of the takes, and smooth out the action.

A mysterious presence enters the house and explores it before imbedding itself in the wall of the basement. Tobe shot the sequence by hand-holding the Bolex and single-framing his way into and through the house. Once inside the

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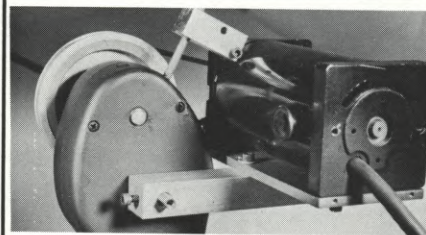
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house, the lighting flickers about in a way impossible to describe here. It was produced by two assistants holding gelled lights on poles which they pointed around the room at Tobe's direction. In effect, a different lighting set-up was used for each frame. The effect is especially remarkable in the basement sequence, as the camera moves down a long flight of steps and moves among the junk stored there, as a passing trunk lid and other items flash open and closed, almost subliminally. Here and there, puffs of smoke appear, provided by a Mole-Richardson fog machine between frames. The presence itself finally appears as a bright light in a flash of smoke. The light was an oversized 100-watt bulb on the end of a long pole, brightened by a Colortran kicker. Behind the bulb was a disk with bits of aluminum foil glued on, which was rotated between frames. A hole was cut in the wall of the basement set to allow the "presence" to be drawn toward the wall, where it was replaced by a Cine-queen light mounted behind the hole, pointed first into the camera, then around the room like a tiny searchlight.

In another fantasy, a sword fight takes place in which one of the characters fights himself. He is not seen in two places at once, but only one place or the other, changing places each time the swords strike. Each segment of the fight from each camera position was choreographed by Tobe and Ron Barnhart, the sword-fighter(s), and then shot without stopping the camera as Ron went through the scene twice: first as one character, then as the other.

In editing, many of these scenes were bi-packed on the Steenbeck editing table. Particularly one series of exchanges which takes place inside a zoom shot. An electric zoom was used so that the two separate zooms could be intercut without a change in speed. One of the two fighters is mortally wounded and disappears inside another zoom. The winner is hit by a blast of light from the previously mentioned hole in the wall, and as he stares, the hole expands into a huge eye. The eye goes deep into the wall through a series of irises made of sprayed polyfoam. In the back of the eye, spark-like radiations are produced by aluminum foil-covered wire spokes which were moved between each frame as the hole enlarged through single-frame animation. The Bolex and the Arri S with animation motor were both locked down to provide two different angles as the hole was chipped away one frame at a time.

In a subsequent scene in the same location, the same character is hyp-



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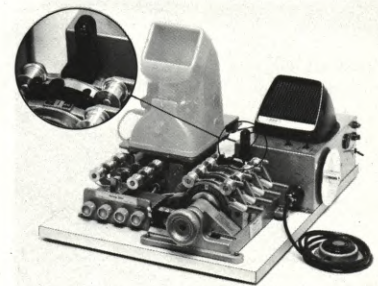
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CORRECTION

In the June issue of American Cinematographer, the wrong price was run for Electro-Voice microphone, model 635-A.

The correct price should have been \$94.50 list, less normal trade discounts. (See advertisement elsewhere in this issue.)

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notized by the eye and then sucked up into a sort of organic hole in the ceiling. Actually, he was lowered down out of the ceiling. This was shot in reverse at 8 frames per second to speed up the action. He was then "projected" (I can't describe it) from the eye the length of the basement to an antique hair dryer.

The hairdryer is also used in a scene in which four people sit under it and pull opaque plastic bags down out of the headpieces to cover themselves. The bags then appear to draw back up into the headpieces. This was shot in reverse at 8 frames per second as the wadded plastic bags expanded at their own natural rate.

One of the shortest scenes took four days to shoot. This was an animated room. With no one present in the room, an uncompleted paint job completes itself in blue. Stars come out, a few at a time. One star becomes the moon, then the sun, and then a landscape complete with sunbeams. Then the whole landscape animates somewhat like a neon sign. We accomplished this by using the Arri S locked down, with an animation motor, and shooting three different strips of film. First we shot two frames of picture and four frames of black, and repeated this for several feet. Then the landscape on the walls was repainted, rotating the colors, and another strip shot similar to the first. The process was repeated after a third paint job, and the three strips were printed together as "A," "B," and "C" rolls. Since the scene included two windows, it was necessary to film at night to avoid light variations.

A '49 Dodge, owned by the fellow playing Toz, figures prominently in the film. A psychedelic paint job by the group living in the house was already underway when filming began. When Toz expressed interest in obtaining a plexiglass bubble for the top of the car, Toze encouraged them to finish the paint job, and the film budget purchased the bubble.

The labor was done by Toz, David, and friends. The four-foot in diameter plastic hemisphere provided a unique camera position. For one sequence, the Bolex was mounted in the bubble, with the 5.7mm Kinoptic showing the red, white, and blue car hood in the foreground. A single frame trip is taken through Austin with a brief side trip through the country. The car hood remains static in the foreground as houses, trees, cars, buildings, and a lot of road flash by. As the camera passes through the State Capitol grounds and the University of Texas campus, the color changes and becomes more ab-

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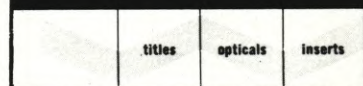
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tract. This section was also printed several times on high-contrast negative stock, and these prints staggered four frames apart and reprinted twice to produce two different masters with different colors. These masters were dissolved back and forth with dissolves ranging from 24 frames to 96 frames. The original color was also dissolved in and out of this mix.

One day in a discussion of materialism Toz expressed a desire to put all of his belongings into the psychedelic car and set it on fire. Tobe encouraged him, and Toz resolved to do it. In the film Toz even pulls off his clothes and shoes and throws them into the burning car. Naked, he runs away in slow motion and out of the frame just as the car explodes in an incredible convulsion of flame and smoke, the shockwave knocking Toz to the ground.

The first preparation for this scene involved digging a final resting place for the car approximately 10' x 20' x 10½' deep. Then a breakaway platform was built in the hole. The platform was at ground level. After the car was rolled onto the platform, the ramp boards were removed and 14 sticks of dynamite and 100' of primer cord placed on the structure. A short distance toward the cameras a hole was dug and 80 sticks of dynamite, 50 gallons of gasoline, and 20 gallons of napalm were placed inside. Nearly 1,000' of primer cord were laid out in a large semi-circle and covered with cement powder. In sequence, the platform in the hole explodes, the car rises slightly off the horizon and then sinks out of view as the second explosion belches flame 200' or so into the air, and the primer cord sends a wall of dust out toward the cameras.

In lighting each scene, Tobe varied the color and style or mood from very realistic to very abstract. He often likes to mix incandescent with daylight, which gives an interesting range of color, especially in skin tones. PSI, in Dallas, was very cooperative in helping him maintain the colors he originally sought in the print which was sent to Atlanta. Tobe was also able to use the video color analyzer at PSI, and found it especially useful for making difficult-to-explain corrections.

With the support of a small and largely inexperienced, but loyal film crew, Tobe wrote, designed, directed, photographed, designed special effects, edited and supervised the film score, and even made part of the music himself. "AN AMERICAN FREAK ILLUMINATION" is almost a one-man feature. It was made through the facilities of FILMHOUSE in Austin. ■

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ATLANTA FILM FESTIVAL
 Continued from Page 813

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Add to this the following facts:

1. From the very beginning Atlanta has maintained a reputation for scrupulous honesty in judging the films entered. This is done by a committee of 100 local experts in media and communications—and their names are kept secret so that they cannot possibly be pressured by vested interests bucking for awards.

2. The Atlanta Festival bestows a huge number of awards, all backed up by handsome trophies and medals. This is perfectly justifiable, not because it has far more entries than any other festival, but because it includes every possible type of film. The categories are sharply sub-divided (a total of 56) because it is considered unfair to judge films of varying types under a single category. In other words, one cannot fairly compare "apples" with "oranges".

3. The Atlanta Festival management refuses to compromise with quality. Everything is done with top-drawer style and flair, but with no phony pretensions whatsoever.

4. The Atlanta Festival refuses to profiteer on the affair. Screening admissions are held to a minimum and there are many free events open to the public. Moreover, not only is there no entry fee for student films, but the Festival actually pays shipping costs and insurance for the submission of these films. In addition, Todd's own company, Interfilm, bestows a \$250. cash award for the best student film.

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But is this the way it should be? Commenting on the City of Atlanta's astounding lack of tangible support for the Festival, a local publication recently reported that "... the city powers ... refused to be connected with the festival in any way. Other than to allow the use of the Arts Center, they've turned down all proposals to help in any way; but they haven't rejected the publicity Atlanta reaps all over the world from Festival Week. Each year they sit back and watch in silent amazement as the festival snowballs and its financial burden is borne by Interfilm. The New York and San Francisco Festivals receive major cash grants of \$100,000 to \$250,000 directly from the cities."

The ultimate indignity was suffered this year when the Atlanta Film Festival was awarded a \$50,000 grant by the National Arts Endowment Fund, provided that an equal amount could be secured locally. When the City of Atlanta refused to match the amount (pleading poverty, or some such), the grant had to be forfeited.

It is especially disgraceful for a booming city like Atlanta—which prides itself on being so progressive and pro-cultural—to deny support to a festival dedicated to honoring America's only original art form—a festival which brings the city more international goodwill than any other single local event during the year.

That the Atlanta Film Festival's prestige and importance has not gone unnoticed elsewhere was indicated by weekly *Variety* feature writer Robert J. Landry, who observed: "New York's fest is running a little scared come October. San Francisco has had its woes... Dallas is an unknown commodity that drew small notice on its one time out. New Orleans' ambitions to get a fest started seem to have aborted. Rochester ran up a \$80,000 deficit in 1970 and is skipping 1971."

In his summation of the Atlanta Festival, after having been an on-the-spot observer, Landry added: "This may be said after a first tentative visit to the Atlanta event: it has many of the qualities which appeal to showmen. With all festivals having troubles (often remarkably similar) imagination and organization are crucial. Atlanta displays both, along with whatever might be improvable. Will this one perhaps have the legs to break through and throw hoof-dust at the U.S. pack?"

In this observer's considered opinion, it already has!

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FILMING "IMAGES"

Continued from Page 785

home-made animation set-up. A Beaulieu R16B camera equipped with an Angenieux 12-120mm zoom lens proved to be as well suited to animation shooting as it was to location work. The camera's registration was excellent, providing us with a very stable and sharp image. The features which proved essential to the task were the camera's accurate footage and frame-counter, its facility for reversing the film many times without damage, and the closed shutter at the end of every take.

The camera's field of view was locked into a given area of a one-foot-square piece of ground glass. The glass was then divided into panels with 1/8-inch black plastic tape. The tape, applied directly to the camera side of the glass, served to neatly mask each section from its neighbor and at the same time keep their relative separation constant.

The slides were projected by a Kodak Carousel projector from behind. The desired composition of each panel was achieved by moving the slide projector closer to or farther from the ground glass. A master plan was then computed which mapped out the sequence and time (in feet and frames) of slide presentation for each panel on the screen. Following this plan, we would film one complete run of a given segment, shooting only one panel of the screen.

We didn't want the sequences to be static. To overcome this, slides in each panel changed at different times. We also panned and tilted slides by moving the projector while they were being filmed. Each sequence had to be a one take operation which couldn't, because of its intricacy, be later edited. The 4½ minutes of split-screen in "IMAGES" represents 80 man-hours of work. As a low budget necessity and a challenge it is unequalled in my experience.

A 1½-to-1 shooting ratio also helped to keep our cost low. This low ratio was a result of careful pre-planning and more significantly the cooperation of Helene Berger and her family. Helene, an experienced actress, took direction beautifully—as did her entire family. The success and recognition that the film has received is only a small part of the reward that working with such a creative and giving woman has brought to us. The greater part is her friendship.

Any film-maker can guess that a 17-minute color/sound film would certainly exceed a \$500.00 budget, and it did. "IMAGES" was completed from scratch to release print for a surprising \$1,200.00.

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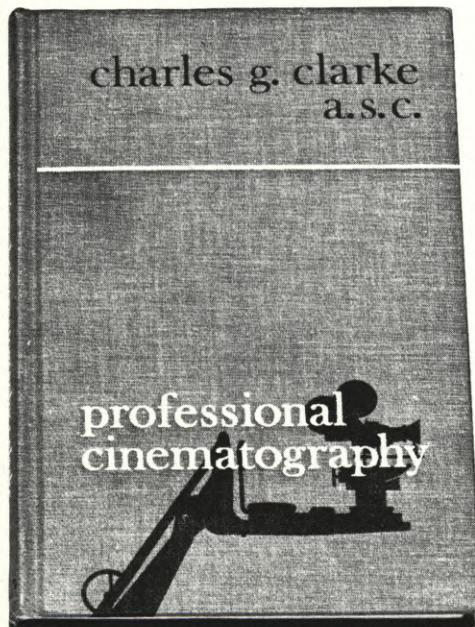
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ABOUT THE AUTHOR: Charles G. Clarke, ASC, a top Director of Photography at 20th Century-Fox for many years, and an ASC member, taught Advanced Cinematography at the University of California at Los Angeles, where he recognized a need for practical professional guidance for students striving to be the industry's future Directors of Photography. It is this need which has given rise to his publication of a book on the subject and subsequently the latest revised edition of Professional Cinematography. The first edition of this valuable book has become required reading at many universities and schools offering courses in cinematography.

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
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