

American Cinematographer

International Journal of Motion Picture Photography and Production Techniques

June 1973 / 75 cents



the Florida Filming Scene

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Sennheiser EM 1008 Wireless		
Receiver with Antenna, Case,		
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Rivas Tape Splicer 16 m/m or		
35 m/m straight-cut.....	new	137.50
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straight-cut.....	used	115.00
Guillotine 16 m/m straight and		
Diagonal.....	new	157.50
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Diagonal.....	new	179.50
Guillotine 35 m/m straight only.....	new	157.50
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Maier Hancock 16/35 Hot Splicer.....	new	326.00
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Splicer AS IS.....	used	749.00
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Griswald 8/16 m/m Jr. Splicer.....	new	25.00
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4 Gang Combination 2/35-2/16		
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clamps.....	new	pr. 72.00
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Optical only.....	used	159.50
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Optical and Magnetic.....	used	239.50

Prices subject to change without notice.

Hundreds of additional items available at huge savings — write, wire or phone for quotations / satisfaction guaranteed or money refunded within 10 days of purchase / add sales tax where applicable — shipping charges additional / all equipment subject to prior sale / trades accepted.

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Angenieux zoom, 8 m/m	
Destagon, Crystal Motor &	
Battery, Charger, 3 Magazines;	
monopod, Case, Belt Battery.....	used \$7,500.00
Photosonic H.S. Camera, 200 ft.	
Magazine, and Belt Battery.....	used 1,995.00
Arriflex II CBGS with Constant	
Speed Motor.....	used 2,450.00
Bolex Pro Camera w/12-120	
Angenieux zoom, crystal Motor	
Battery, 400 ft. Magazine,	
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Eclair N.P.R. with 2 magazines,	
constant speed motor, cradle	
& Case.....	used 4,200.00
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Battery, Charger, Pistol Grip,	
Two Magazines, Case.....	new 6,895.00
Auricon Cine Voice Converted to	
Bell & Howell 400 ft., Magazines,	
Amplifier, and Case.....	used 875.00
Auricon Cine Voice Converted to	
Mitchell 400 ft. Magazines wired	
for Magnetic Attachment.....	used 1,200.00
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Bell & Howell Eyemo with one Lens.....	used 97.50
Bell & Howell Compact Eyemo.....	used 325.00
Bell & Howell Spider Eyemo.....	used 275.00
Wall Sound Camera, with 2	
Magazines, Amplifier, Power	
Supply, 40, 50, 75 m/m Baltar	
Lenses and Cases.....	used 995.00
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Standard.....	new 832.50
VTR 19" Monitor.....	new 198.00
All three above VTR items.....	1,215.00
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Charger, Two Magazines, Pistol	
Grip and Case.....	used 5,850.00
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Legs, Hi Hat, and Cases.....	used 459.50
Akeley Gyro Tripod Head.....	used 250.00
Akeley Hi Hat.....	used 20.00
Akeley Standard Legs.....	used 89.50

Akeley Baby Legs.....	used	\$ 79.50
Pro Jr. Standard Tripod with		
Friction Head.....	new	179.50
Pro Jr. Standard Legs.....	new	89.50
Pro Jr. Baby Legs.....	new	89.50
Pro Jr. Hi Hat.....	new	27.50
CSC Triangle Dolly.....	new	149.95
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Base.....	new	774.00
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Pointer Lock Complete.....	109.50	
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Case.....	new	74.50
Minolta Spot Attachment for		
Professional.....	new	21.00
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General Electric Meter.....	used	14.50
Gossen Scout Meter.....	new	15.95
Gossen Luna Pro.....	new	73.00
Minolta Spot Meter and Pouch.....	new	269.50
Weston Master V or VI.....	new	37.50
Weston Ranger 9.....	new	63.75
Sekonic Studio L28 Meter.....	new	49.95

LENSES

9.5.9.5 Angenieux "C" Mt.....	new	1,850.00
9.5.9.5 Angenieux 10" finder		
"C" Mt.....	used	1,650.00
12-120 Angenieux Eclair Mt.....	used	875.00
12-120 Angenieux Arri Mt.....	used	875.00
17-85 Pan Cinor Arri Mt.....	used	279.50
17-85 Pan Cinor with finder		
"C" Mt.....	used	375.00



CAMERA SALES CENTER CORP.
SALES AFFILIATE OF CAMERA SERVICE CENTER, INC.
625 West 54th Street • New York 10019 • 212 PL 7-0906

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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New York, N.Y. 10011

general camera
corporation **gc**
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ON THE COVER: A kaleidoscope of scenes indicating picturesque motion picture filming locations in Florida. Cover design by PERRI & SMITH.

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“All of a sudden our day-to-day work turned out to be something special.

“Of course, our job is to make improvements. But we didn't realize how successful we had been until we stepped back and took a look.

“Take super 8 for example. Eastman Kodak Company made better and better super 8 film to meet the increasingly critical requirements of the market. At first, it was an innovation for the general consumer. Then we realized how important it could be in other applications. So we supplemented it with special cameras and projectors for use in television and even CATV.

“Or take our exciting new film stocks in 16 and 35mm. Generations of development continue to give birth to entirely new emulsion technologies.

“Better films need more flexible, more useful projectors. So our company developed the Eastman 16mm television projector, model CT-500. It fills the need for a fast-forward, fast-reverse machine...the first projector designed for truly efficient film use in television.

“That's where we are right now, and we're anticipating a lot more. We've set our goals very high.

“We've found the best way to make the future happen is to work hard at it today.”

Judith Schwan. Superintendent of Emulsion Research
At Eastman Kodak Company.

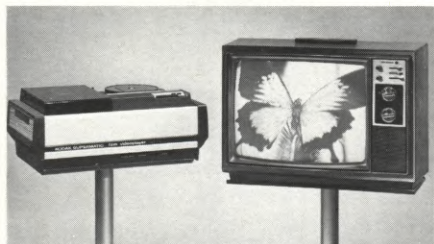


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WHAT'S NEW

IN PRODUCTS, SERVICES AND LITERATURE



KODAK ANNOUNCES SUPER-8 FILM VIDEOPLAYER; PLAYS SUPER-8 FILM OVER STANDARD TELEVISION

Eastman Kodak Company has announced that it will manufacture and market a Super-8 film videoplayer that can be used in schools, business, industry, and government installations to play color and sound Super-8 movies over a standard television receiver or closed-circuit television system.

The announcement, made at a recent press conference, follows a feasibility study made public in October, 1971, at the Society of Motion Picture & Television Engineers convention in Montreal.

At that time, Kodak pointed out the flexibility of Super-8 film as being the one videocassette medium that allows the communicator to use conventional display when *it* is desirable, videocassette display when *it* is desirable, and use the same film in the same cassette to do either or both. Super-8 film puts at the user's disposal a recording and display medium of excellent quality which can be used silent or sound, in black-and-white or color, for video or non-video display, domestically or internationally, with individuals or groups—all at the user's discretion.

Kodak executives termed the videoplayer a substantial breakthrough in videofilm technology, permitting dramatic reductions in the size and cost of equipment required for conversion of film images into electronic signals.

The Kodak Supermatic film videoplayer VP-1 plays black-and-white or color, silent or sound Super-8 motion pictures over a standard color television set by attachment to the antenna terminals of the set. The videoplayer can also feed a signal to a multiplicity of television sets or a television system. It is expected to find application in education and training, medicine, sales and point-of-purchase displays, communications and briefing centers, and as a new wide-ranging source of program input

for existing closed-circuit television systems.

Features of the Kodak Supermatic film videoplayer include push-button controls, automatic threading, instant review, stop motion, cassette loading, automatic rewind of film into the cassette at the end of the film, and extremely quiet operation.

The videoplayer accepts Kodak Supermatic cassettes for projection of standard Super-8 film. The cassettes can be used interchangeably on existing silent and sound Kodak movie projectors such as the Kodak Supermatic 60 and 70 sound projectors allowing unmatched display flexibility for the videocassette user. Kodak Supermatic cassettes are available in 50-, 100-, 220- and 400-foot sizes and can be quickly and easily opened to load or unload Super-8 film.

The videoplayer uses a flying spot scanner and a continuous film transport system, permitting acceptance of thinner-base film for longer programs, minimal wear on film, and less wear on the mechanism. The videoplayer runs at 18 and 24 frames per second and conforms to the Super-8 magnetic standard of 18 frames separation between sound and image.

The compact unit measures 8 inches in height, 26 inches in width, and 15 inches in depth, weighs approximately 35 pounds, and runs on standard 60-cycle, 110-volt current.

The RF modulator on the Kodak Supermatic film videoplayer is preset by Kodak for either 54-60 MHz or 60-66 MHz for operation through channels 2 or 3. A video signal output for systems application is also included. The videoplayer is designed to conform to all current FC rules for Class I TV devices.

The Kodak Supermatic film videoplayer VP-1 sells for \$1,195 and is scheduled to be commercially available in late 1973.

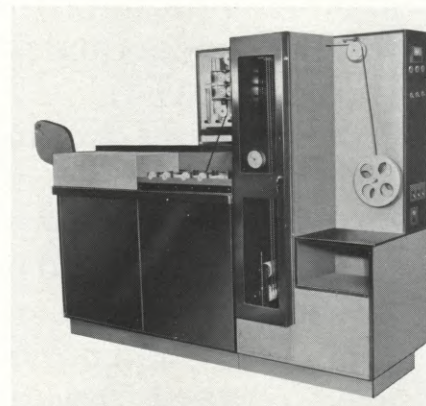
3XL MAGNETIC RECORD/PLAYBACK HEAD NOW AVAILABLE FROM CINEMA PRODUCTS CORPORATION

Cinema Products Corporation announces the availability of the new 3XL magnetic record/playback head for Cinema Products' Crystasound record-

ing system.

The 3XL magnetic record/playback head is encapsulated in a single module to guarantee absolute alignment for the entire life of the head. Cinema Products' new 3XL record/playback head has been designed to last at least three times longer than standard Auricon-type heads. The 3XL head fits the CP-16 and CP-16/A 16mm TV-news/documentary motion picture cameras, as well as all other cameras which accept Auricon-type magnetic heads. It is available at \$660.00.

For further information, please write to Cinema Products Corporation, 2044 Cotner Avenue, Los Angeles, Calif. 90025.



NEW SMALL PROCESSOR FOR EKTACHROME

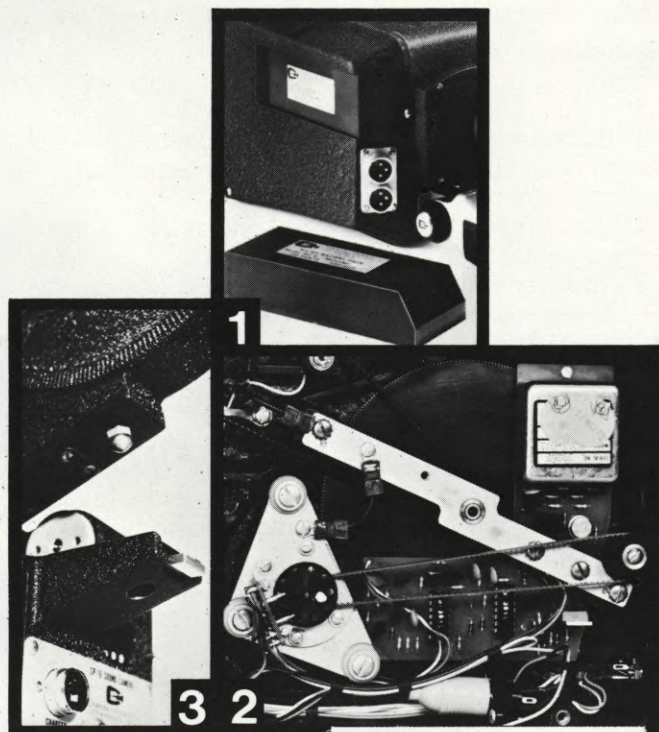
A new compact processor for Super-8mm and 16mm Ektachrome motion picture film has been introduced by Houston Photo Products, Inc. Designated the Houston Cine Pro, the machine is especially suitable for use by television stations, independent laboratories, audio visual, commercial and industrial film producers.

The new machine is fully automatic and entirely self-contained. It is sold fully-equipped, ready to operate. Processing speed is 24 feet per minute. It requires little space and can be operated in a fully lighted room.

All processing speeds are precisely timed and solution temperatures accurately maintained according to the film maker's specifications. Film transport is by a bottom tendency drive system that minimizes film tension and eliminates film breakage. Film is dried by the impingement of high-velocity filtered warm air.

All tanks and racks of the Cine Pro are made of type 316 stainless steel except for the bleach section which is Titanium. Manufactured by Houston Photo Products, Inc., Box 5269, Yuma, Ariz. 85364.

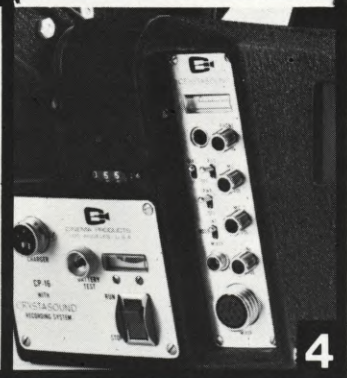
Why is the CP-16(A) camera different from all other documentary cameras?



- 1 THE POWER SOURCE** A small cigarette pack size battery drives the camera at least 3600' per charge. You get two batteries with each camera. Weight is a mere 16 oz.
- 2 THE CRYSTAL DRIVE SYSTEM** Precision framing rates within a few parts per million (over a temperature range from below zero to over 140°) allow double system wireless shooting or exacting single system shooting.
- 3 QUICK ATTACH MAGAZINE** Through the use of a unique mounting stud, standard Mitchell magazines clip to the camera in a fraction of the time formerly required.
- 4 BUILT IN AMPLIFIER** The Crystasound CP-16/A version of the CP-16 features a modern three input amplifier as an integral part of the camera. A rapid recovery (milliseconds) AGC circuit takes care of the sound once threshold levels are established. For those who prefer, an optional six input mixer is available.
- 5 3-XL MAGNETIC MODULE** For single system work, all CP-16 cameras now offer the new 3-XL magnetic head as an option. This unit has a head life roughly 3 times that of comparable modules.

Not illustrated: **OPTIONAL TWO-SPEED OPERATION** The camera can be ordered with a two speed switch which allows an overcrank of 36 fps for semi-slow-motion work.

CINEMA
E Technology In The Service Of Creativity
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 CORPORATION



Try a side by side comparison of the CP-16 and other documentary cameras. We're confident you'll agree ... The CP-16 IS different ... It's better!

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THE CAMERA MART, INC.
 456 W. 55th St. New York 10019 (212)757-6977

The movie camera to end all movie cameras.



Anything you ever needed a movie camera to do, this Braun Nizo Super 8 does. And a lot of things you never thought you could do without a special-effects lab, this one does. It probably won't be the first Super 8 camera you'll buy. But it probably will be the last.

It's what's up front that counts.

No matter what visual effects a camera builds in, it's only as good as its lens.

And that means there's no camera better than this one. Because no camera near the price has a Schneider Variogon out front, bringing in clear, crisp, incredibly true images. It's the lens other Super 8s wish they had, but don't.

Something else other Super 8s wish they had: the Braun Nizo metering system. You can override it whenever you want, but most of the time you'll use it to get clear, beautifully accurate footage.

Braun builds Nizo Super 8s in Munich, Germany. And they build them right.

Wide today, long in a second.

It zooms like whipped cream from 7mm to 80. That makes it one of the longest zooms you can buy in Super 8. As a matter of fact, it's probably more zoom than you'll use, most of the time. But once in a while, you won't want to settle for anything less.

"Dissolve from the flower to Mary."

If you work in Hollywood, you get your lap dissolves from a lab. But if you work with a Nizo, you get perfect lap dissolves from a button marked "R", automatically. (There's even a little window that shows you you're in the middle of a dissolve.)

So you can go smoothly from flower in your garden to flower in your life; from monkey at the zoo to happy little boy's face; from mint 1934 Rolls to dragster. Maybe nothing's more professional than a clean, sure lap dissolve. And for certain no lap dissolve is cleaner and surer than a Nizo lap dissolve.

Go to black.

Another effect pros go to the lab for is a fade, whether it's out or in.

And that's another effect you simply go to your Nizo Super 8 for. One button does it, beautifully.

The button you think you'll never use, until you use it once.

Maybe you don't think you'll ever do any time-lapse photography: showing flowers blooming, or cities getting ready for night.

Maybe you think you'll never try animation.

The switch that activates our Intervalometer is a switch a lot of people don't make, for a while.

But once they try it, they hate to let go.

You can shoot up a lot of film, one frame at a time. And you'll find it's some of the greatest you ever shot.

Slow motion, fast.

Your little boy is scampering next to his big ole dawg. Dawg herds boy; boy flops over dawg.

You don't want the whole thing in slow-mo, just the flop. So with this one, you push a little button, and presto, you're in 54-frames per.

Or you can shoot in 24 frames a second, or 54, just by twisting a little knob.

It's another feature you won't use a lot of. But what you do use will help make great movies for you.

The invisible man, unveiled.

Fifty years from now, will they see your skill, your taste—but not your face?

You can set up your Nizo Super 8 so that any idiot can get perfectly exposed film out of it. Which means you can get in front of the camera, once in a while.

We think every great cameraman deserves a chance to be a star once in a while.

There's more?

A lot more. Like lipsynch sound capability and time exposures. And a tough two-year guarantee.*

And the whole point of all this is simply to make sure you look at one of the Nizo line of Super 8s, if you're looking at any Super 8 beyond your first one.

Ask your dealer. He won't have to sell you.

Just show you.

*If within two years from date of purchase a Nizo S-480, S-560 or S-800 movie camera fails to function because of defects in materials or workmanship and the unit is returned to an authorized service center, Braun North America will, at its option, repair or replace the unit without additional charge. Batteries, misuse or tampering excluded.

BRAUN
Nizo
SUPER 8



Braun North America, A Division of The Gillette Company, Cambridge Parkway, Cambridge, Mass. 02142.
In Canada: Braun Electric Canada, Ltd., Mississauga, Ontario.

"My name is Sy Cane."

I can give you five good reasons to buy all your motion picture equipment from me. And one good reason not to.

First, I have a funny kind of relationship with equipment manufacturers. I bug them. I don't let them live until they deliver what I've ordered. And that means my customers never have to bug me.

Second, you won't find any order takers at Mobius. A guy who doesn't know as much about the business (or almost as much) as I do doesn't last here very long. With the possible exception of the secretaries, everyone here is an expert.

Third, you can't do any better, anywhere, on price. If I get a break when I buy, I pass the break-on to you.

Fourth, I service what I sell. If it's cam-

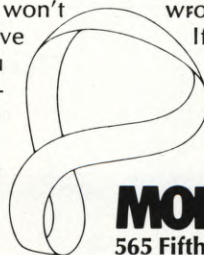
era equipment, you don't have to bring your tale of woe to Arriflex or Eclair or Auricon. Mobius will take care of it. And that goes for our sound equipment, lenses, lights, projectors and editing equipment, as well.

Fifth, I can help you in ways that won't cost you a penny, but that *could* save you a lot of bread. Like helping you with technical problems and showing you how to get the most out of the equipment you already own. Sometimes I can show you that the camera you think you need so desperately isn't really necessary. I may lose a couple of sales, but I

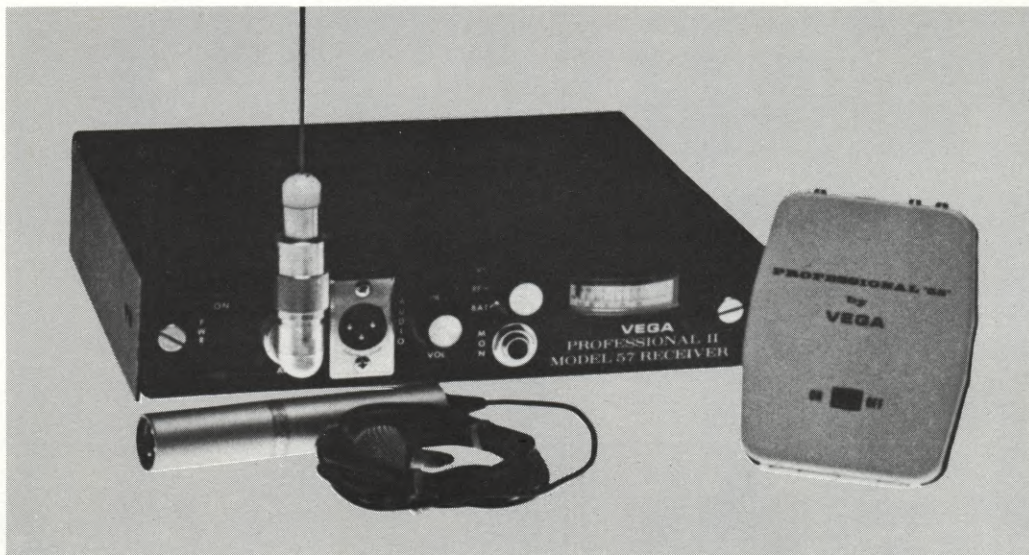
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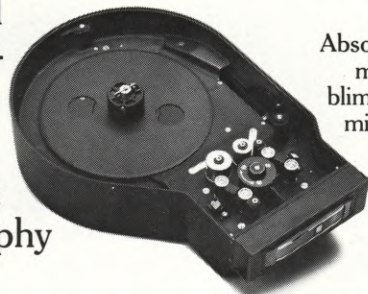
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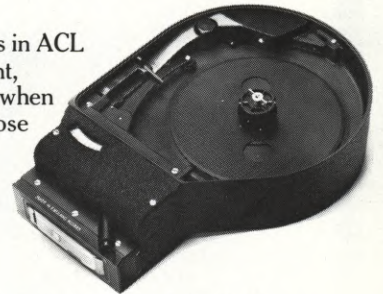
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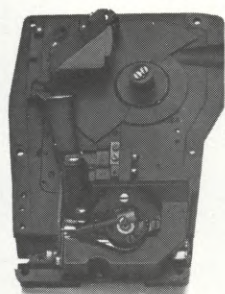


camera, simplicity yields many more benefits. A simpler camera is a more rugged camera. Fewer parts to

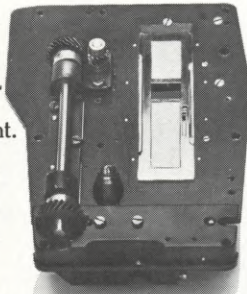
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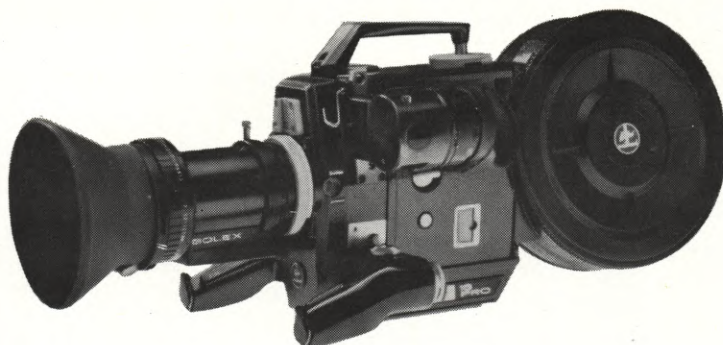
For the name of your nearest Eclair dealer, or a copy of our fact-filled brochure, write or call Eclair Corporation of America, 62 West 45th Street, New York 10036 (212) 869-0490 or 7262 Melrose Avenue, Los Angeles, California 90046 (213) 933-7182.



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A cameraman's camera.

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CINEMA WORKSHOP



By ANTON WILSON

LIGHT METERS—PART III

Light meters can essentially be categorized into two basic types: incident and reflective. Every cinematographer seems to have a personal preference as to which type meter he employs. However, each meter has a specific purpose and it is the situation that should determine the proper meter.

The principle of the incident meter is elementary. The meter is placed at the position of the subject, pointed toward the camera position and measures light falling onto the subject. Most incident meters use a "photo-sphere," a translu-

FIGURE 1—Incident light meter, with "photo-sphere".



cent hemisphere over the photo cell (see FIGURE 1). This is a device pioneered by Don Norwood and intended to simulate a three-dimensional object. The hemisphere will integrate the light hitting from the front, as well as from the sides, above and below.

This type of meter will, thus, give a reading taking into account light falling from all directions relative to the camera position. This reading, however, is based only on light falling onto the subject and does not take into account the subject at all. The subject may be light, dark, yellow or purple, and yet the incident meter will give the same reading for a given lighting set-up. What, then, is the significance of the incident reading? Simply that the incident reading indicates the proper aperture to render an 18% gray subject in the center of the film's latitude. In other words, if the iris is set to the incident reading, those items in the scene that are medium gray (18% reflectance) will be centered in the film's latitude. A white-skinned person (usually 30-35% reflectance) will register as a stop over center, and those darker items (8-10% reflectance) will, likewise, be a stop under. Thus, the incident meter is indicating the proper exposure for a medium gray.

This is a very valid method for determining exposure for several reasons. The average scene has many elements ranging from very dark to extremely bright, and a setting for a medium gray will center these elements within the film's latitude. Moreover, even if a scene is not well balanced and contains mostly bright objects, the incident reading will render these items where they should be, i.e., above center on the film's latitude curve. Probably the most important aspect of the incident meter is *consistency*. By adhering to the incident reading, the cinematographer is assured of consistent rendering of flesh tones and other colors from scene to scene. Because the incident meter measures only illumination falling onto a subject, any given object, regardless of its color or shade, must be rendered at a specific spot on the film's latitude from scene to scene, location to location. When working with actors or other elements where scene-to-scene matching is imperative,

the incident meter is undoubtedly the best choice.

The reflective-type meter works on the exact opposite principle from that of the incident meter. In practice, the meter is positioned at the camera, aimed at the subject, and measures light reflected from the subject. What is the significance of the reflective reading? The answer is a little tricky. First, it should be stated that, compared with the incident meter, the reflective meter is an extremely ignorant device. It takes the intelligence of the cameraman to properly interpret the reflective reading. Actually the reflective meter thinks everything is a medium gray (18% reflectance) whether it is or it isn't. If one were to literally follow a reflective reading, everything would come out the exact same shade of gray. Essentially the reflective meter has no idea what the subject is and is calibrated to assume it is a medium gray (18% reflectance). You might say that the reflective meter

Continued on Page 798

FIGURE 2—Reflective type meter, which also includes incident light capability.



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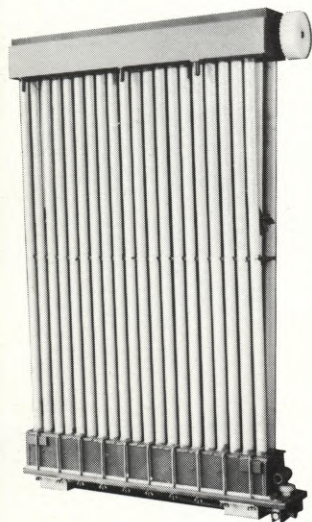
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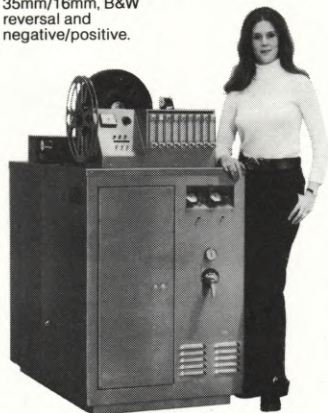
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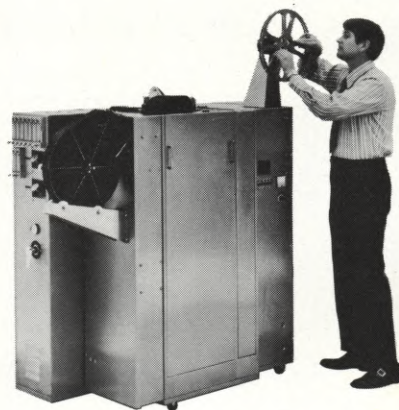
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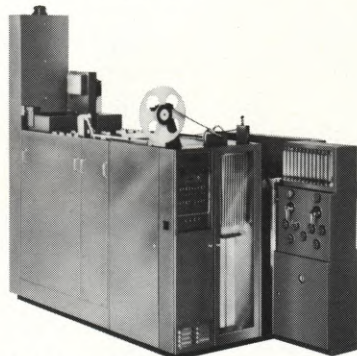
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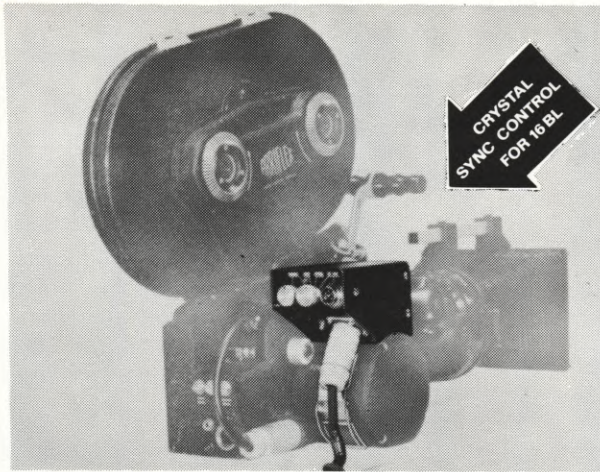


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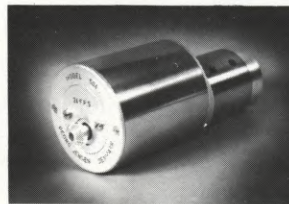
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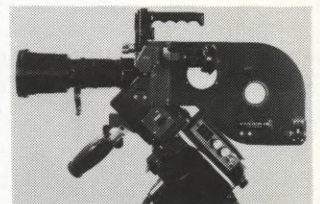
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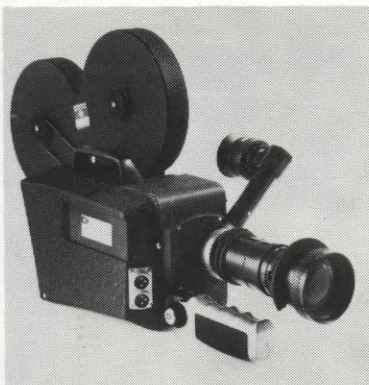


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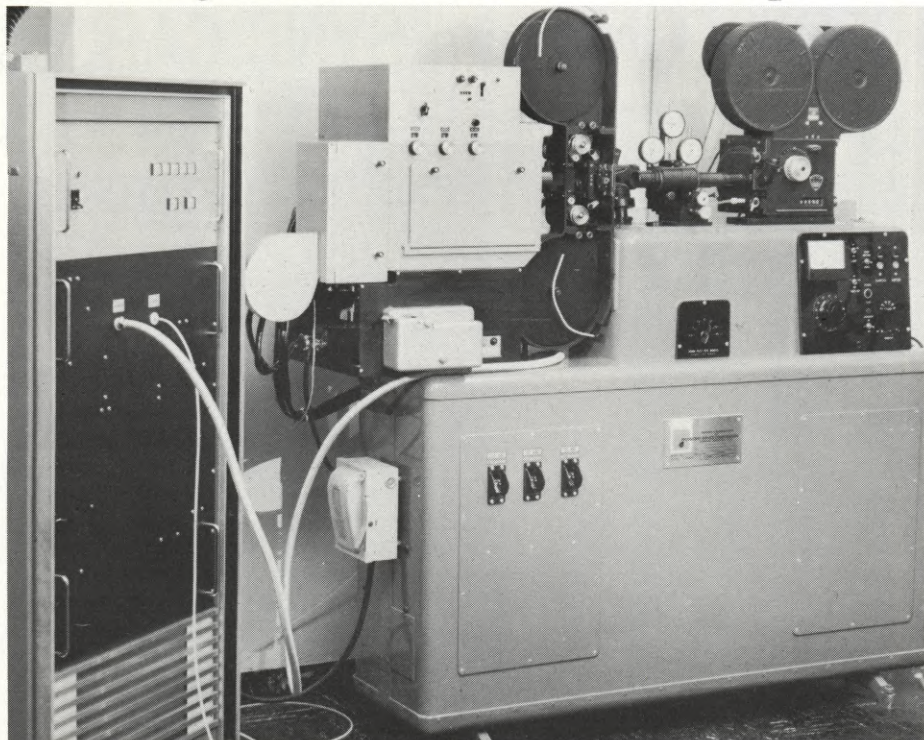
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The tape-reader, computer, Bell and Howell lamphouse and shutter are the components which make this blow-up printer system fully automatic. The printer operator need only thread the original and raw stock, along with the control tape, into the machine and flip a switch. The printer automatically produces 35mm dupe negatives from 16mm reversal originals. This is the first machine with an automatic tape-reader computer capable of doing this type of sophisticated blow-up. Because of the cue system of the blow-up printer, the fader system is fully automatic, eliminating the necessity of operator controlled fades and dissolves.

Wet printing is highly essential to quality optical printing. The liquid gate, through which the film passes, performs an important function. Using this gate,

unblemished negatives can be produced from original material where scratches and abrasions perhaps not reproduced in contact printing would be objectionable in blow-up optical printing.

When passing through the liquid gate, scratches on the original are filled with liquid. The liquid has an index of refraction approximately halfway between that of the base and the emulsion of the film, thus scratches and abrasions do not reproduce on the finished negative.

An important and vital feature of the automatic blow-up printer is that it performs the printing operation on Kodak film, type 5271, rather than the negative type 5254, which has been commonly used. The 5271 film is extremely fine grained but very slow in speed. The original concept of this printer from the outset specified a light source and optical system capable of utilizing this duplicate negative stock together with a system for changing the color and intensity of light for any scene so as to produce a fully balanced negative.

The automated optical blow-up printer was constructed for Consolidated Film Industries by Producers Service Corporation in accordance with outlined specifications.

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THE BOOKSHELF

By GEORGE L. GEORGE

The realism of most theatrical films nowadays tends to blur the differences between fiction and documentary motion pictures. This trend gives topical relevancy to W. Hugh Baddely's *THE TECHNIQUE OF DOCUMENTARY FILM PRODUCTION* (Hastings House \$10.), now in its 2nd revised edition. Dealing with all aspects of production, the book's practical and comprehensive approach clearly defines the inter-relationships among filmmaking areas. Its coverage, from preparation of scripts to distribution procedures, includes a particularly informative chapter on camera equipment and accessories.

* * *

A book by British filmmakers Alan Lovell and Jim Hillier, *STUDIES IN DOCUMENTARY* (Viking \$6.95), examines England's acknowledged contribution to the factual film. Starting with John Grierson's seminal work, the authors discuss the war-time films of Humphrey Jennings, the revitalizing "Free Cinema" of Lindsay Anderson, Karel Reisz and Tony Richardson in the 50's, and conclude with a critical appraisal of British documentary's current prospects.

* * *

The emergence of the film industry from its mixed historic background is the subject of Joseph H. North's scholarly study, *THE EARLY DEVELOPMENT OF THE MOTION PICTURE, 1887-1908* (Arno Press \$15). The book's extensive research covers the scientific work of the Lumiere Brothers and Edison, roadshows, vaudeville houses and nickelodeons, the transition from episodic to story films, and D. W. Griffith's creative techniques and production methods.

* * *

A little-remembered aspect of European filmmaking is evoked by Bebe Bergsten in her engaging study of Denmark's pioneer film company, *THE GREAT DANE AND THE GREAT NORTHERN FILM COMPANY* (Historic Films, Box 46505, Los Angeles, CA 90046, \$8.95). The 16 Nordisk pictures of 1911-12 vintage she discovered in the Library of Congress Paper Print Collection prompted her to further research. Her descriptions of these films, of production techniques and business methods reveal a fascinating picture of the vitality and enterprise of an adventurous era.

* * *

Published movie scripts provide perhaps the fastest-growing type of cinema

books today, assured as they are of a virtually inexhaustible supply. Contrary to much strictly "fan" stuff, screenplays generally offer valuable material for the appreciation and study of film. Here is a list of recently issued scripts, different in presentation, but equal in interest and importance:

From Simon & Schuster, several significant new titles. Jean-Luc Godard's *WEEKEND* and *WIND FROM THE EAST*; Dylan Thomas' *UNDER MILKWOOD* (script and direction by Andrew Sinclair); Josef von Sternberg's *MOROCCO* and *SHANGHAI EXPRESS*; the Marx Bros.' *MONKEY BUSINESS* and *DUCK SOUP* (respectively directed by Norman McLeod and Leo McCarey); W. C. Fields' *NEVER GIVE A SUCKER AN EVEN BREAK* and *TILLIE AND GUS* (Edward Cline and Francis Martin, directors), and *TWO RUSSIAN FILM CLASSICS*: Pudovkin's *Mother* and Dovzhenko's *Earth* (\$2.95 or 3.95 ea.).

From Farrar, Strauss & Giroux, *THE ALL-AMERICAN BOY* (\$6.50/2.75), the moving story of an aspiring prizefighter written and directed by Charles Eastman; from Bantam, *THE LIFE AND TIMES OF JUDGE ROY BEAN*, John Milius' excellent script enhanced by John Huston's direction, and multi-award-winning TV film *BRIAN'S SONG*, William Blinn's tale of football teammates directed by Buzz Kulik (95¢ ea.), and last, but not least, a large-size helping of visual and verbal gems from Abbott & Costello comedies, *WHO'S ON FIRST?* (Norton \$8.50), an hilarious montage edited by Richard J. Anobile.

* * *

Following his earlier survey of top thespians of cinema's golden era, David Shipman's new book, *THE GREAT MOVIE STARS: THE INTERNATIONAL YEARS* (St. Martin's Press, \$15.), evokes the film world since 1940 in witty, perceptive biographies of some 200 performers and 400 meaningful stills. As selective documentation, this is a brilliant and scholarly study of popular mythology.

* * *

In *SEX GODDESSES OF THE SILENT SCREEN* (Regnery \$7.95), slinky Theda Bara, exotic Barbara LaMarr, fiery Pola Negri, soulful Mae Murray and the "It" girl, Clara Bow, vamp their seductive ways through Norman Zierold's fast-paced account of their turbulent on and off screen lives.

* * *

The Pyramid Illustrated History of the Movies series is off to a promising start with well written biographies of *GABLE*, *HEPBURN*, *DAVIS* and *BOGART* (\$1.45 ea.). ■



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THE HONOR ROLL



Glenn R. Kershner, ASC

Glenn R. Kershner joined the American Society of Cinematographers in 1927. Previous to becoming a member of the Society, during and prior to the First World War, he worked as a cameraman for Henry Ford and as the writer, and director of the Ford Weeklies, one and five-reelers. Prior to this time he had worked with Frank Lloyd, Irvin Willat, Fred Niblo, Frank Urson and Tod Browning, at Goldwyn, DeMille, First National, Universal, Lasky and Hal Roach Studios. By the time he became a member of the A.S.C., he was firmly established working with DeMille and Hal Roach.

In 1927 Kershner photographed the Pathe-Bray Colorado River Expedition and, although the expedition was given up for lost by the press, he later reported in the *American Cinematographer* . . . "The scenery is so beautiful, it is beyond my vocabulary to describe it, and the pictures are gorgeous. I used Panchromatic negative which gave me all the gradations of the spectrum. Filters played a very important part, as the Grand Canyon is like the rainbow itself.

"The party, now called 'The Lucky Thirteen' was composed of Leigh Smith, Director; E. C. LaRue, Glenn R. Kershner, Pat Gannon, John Shubert, Sargeant Herrick and Bob Barber, and the boatmen were Nick Samoff, Val Woodbury, Con Rodin, Owen Clark, Dean Daily and Frank Dodge, head boatman. As a party we had a wonderful time, but would hardly care to repeat such a hazardous trip under such awful conditions."

Among Glenn's many accomplishments is his ability to turn a phrase and, in 1946, he composed an article for "THE GRAPHIC OF CALIFORNIA" titled "The Cameraman is 'King' in the Actual Production of the Moving Picture" in which he stated: "Hollywood may have its Louis B. Mayers, Darryl Zanucks, Jack Warners, Directors and Actors . . . but it is the Cinematographer, the least paid, the most valuable and the most kicked-around man in the motion picture business, that I want to talk about. He has been the man behind the camera for the last forty years,

dreaming, experimenting, always trying for something new, something better, a different kind of lighting. He has developed motion picture photography to the high standards of today."

Glenn Kershner, besides being a cinematographer, is a musician, an author, a ham operator, and, after many years, a student.

After years of traveling the world and finally settling in Hawaii, Kershner decided that one is "just no good unless he can speak French." And thus, he became the oldest student on campus.

Kershner attended the University because of its "highly-rated French department" and because he wanted to study short-story writing under Dr. William Huntsberry.

During the formative years of the Opera Guild of Honolulu, Kershner played the Bass in various performances, but is a musician of long standing. In the 1902 Rose Parade, Kershner rode in a three-seat hard-top buggy drawn by four horses. At that time he belonged to the Los Angeles Mandolin and Guitar Club, and he played both Negro Spirituals and Mexican dance tunes. Fifty years later, he played a piccolo in the New Year's Day march with the Al Malaikah Shrine Band, since he is a Shriner.

In 1953, on his 69th birthday, Glenn Kershner received his commission for his ham radio operator license.

"No one is too young or too old to become a ham radio operator," Kershner concluded. "I saw boys 11 and 12 years old taking the exams. As for old people, they can do it too—I did."

Over the years, Glenn Kershner has spent much time traveling. The bug really bit him when he filmed material for "BEN HUR" in Rome in 1925.

His first love, however, is the South Seas. When he lived in both Tahiti and Fiji, it was a simple task to leave his grass hut, walk to the beach and cast a net for fish. There were plenty of breadfruit, bananas and mangoes.

After spending much time in the Polynesian Islands, he remarked one time: "While the Hawaiian Islands are

grand to live on, they do not compare in many ways, with the Polynesian Islands below the equator. I do marvel at the picture companies coming here and trying to find, or having to build, entirely, South Seas' scenery, especially when there are no lagoons or beaches and, most of all, knowing Hawaiians cannot dance like Tahitians. Hawaiians have been learning these slow moving rhythms since baby days and cannot change."

Kershner's travels never were limited to the South Seas alone, his travels through America, Canada, Mexico and Europe make him a voice of authority.

Four times Kershner has been given up as dead. Two times his wife refused to accept his insurance checks.

In 1923 a schooner he was on in the Pacific ran into a typhoon and was in danger of capsizing. The sails were torn to shreds and the water and food were low. Since there was no word from the ship and she was long overdue in port, she was given up for missing. Later she sailed into San Francisco.

In 1920 he was given up for dead in Canada and in 1920 he was captured by Mexican bandits and held as a hostage for two weeks.

He was finally released and the first person he met said "We'd given you up for dead."

Once he stopped a revolution in Mexico for a day so that he could photograph some of the participants. The only thing that made him reluctant to walk through the streets with only a camera was that not all the fighters were impressed with the one-day treaty and thought it was fun pot-shooting at him.

He once photographed the spin of a rickety DeHaviland airplane from 5000 feet. The only thing that made him reluctant to get into any plane again was that the DeHaviland was almost in contact with the ground before it pulled out.

Glenn Kershner is still going strong in Hawaii and is writing a book on his second 85 years. ■

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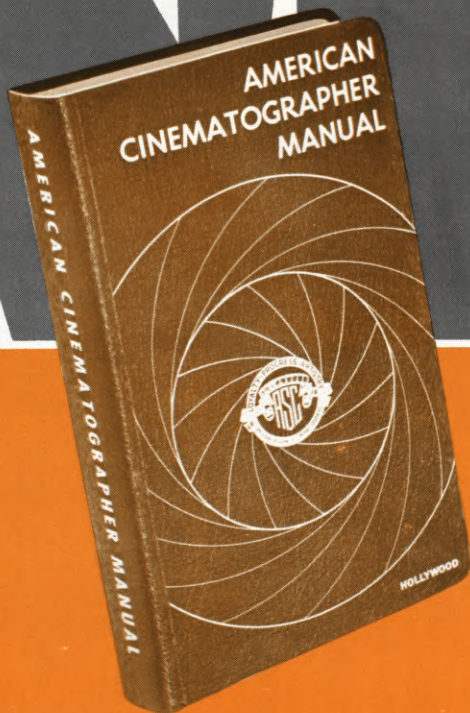
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and WALTER STRENGE, ASC.

(Inquiries are invited relating to cinematographic problems. Address:
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wood, Calif. 90028.)



Q Why is it better to use a long-focus lens with long extension tube when photographing wildlife and nature subjects instead of a lens of short focal length plus a short extension tube, which would produce an image of equal size?

A To get the same image size on the film, the photographer must move closer if he uses a shorter focal-length lens. It is often difficult or impossible to get close enough to wildlife to use short focal-length lenses. Nature photographers generally equip themselves with a variety of very long lenses for this reason.

Q Can you give us some details about using the traveling matte process in the production of a training film which we are shooting for a local manufacturer? Is equipment for this work available on the market?

A Traveling matte work is a highly technical undertaking for which only the major studios and some large film labs are equipped. Unless you have a great deal of this work to do, it would be advisable to farm it out or change your script to eliminate the need for traveling matte shots entirely.

Q What is the procedure for producing artificial cloud effects, such as are used in a heaven scene of a recent Hollywood production? The clouds were maintained at low level, moving around the feet of the actors.

A The production of special cloud, fog, and low-hanging mist effects in motion pictures is a highly specialized technique; such effects are rather ambitious to be undertaken by the uninitiated, as they require a great deal of equipment to produce.

Containers, usually shallow pans, filled with oil are heated to produce smoke which is blown through tubes about six inches in diameter to the set.

At the end of each tube is a box containing dry ice which lowers temperature of the smoke causing it to flow close to the floor. Dampening the floor with water further aids in keeping the smoke at low level.

Some success may be had in small, confined areas by covering a piece of dry ice with a damp grass mat or heavy cloth such as burlap, and gently blowing the mist over the set with a fan. Such effects are best produced on a set or in an enclosure free of drafts so that the consistency and direction of the smoke can be controlled by electric fans.

Q Please give information on the correct material to use for a screen for background projection. I have used a panel of frosted glass for this in making titles, but with poor success.

A Most professionals of my acquaintance use screens made of ethyl cellulose which is cast on a seamless matrix textured on one side. The optical characteristics depend on the particular finish given to the side of the screen which faces the camera.

Q I do all my shooting at 16 fps and project at this time speed. On the screen there is considerable distortion and smear—as when one does a lot of panning on close subjects. Would I get better results shooting at 24 fps?

A The first step is to try projecting your film with another machine than the one you are presently using. You may be experiencing projector shutter drag. If your film projects satisfactorily on another machine, have your own serviced and corrected for the trouble. Should the trouble persist, have your camera checked. If the camera shutter opens before the film stops moving, this too will cause the image to blur. The same trouble will also result when the pulldown claw starts to advance the film before the shutter is completely closed. ■

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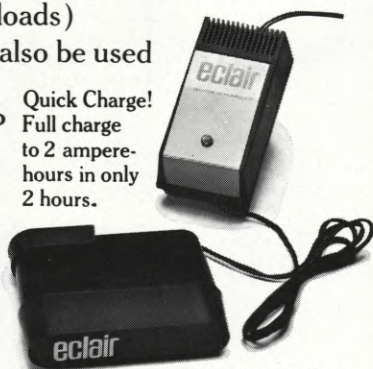
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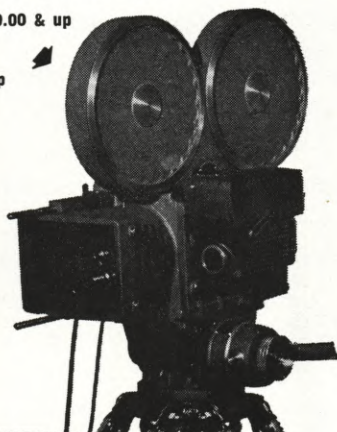
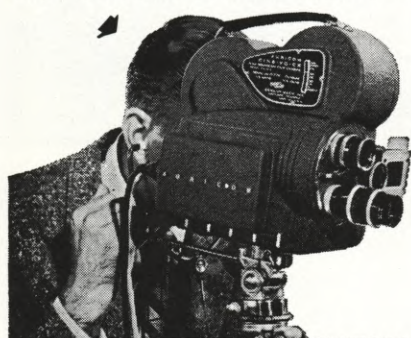


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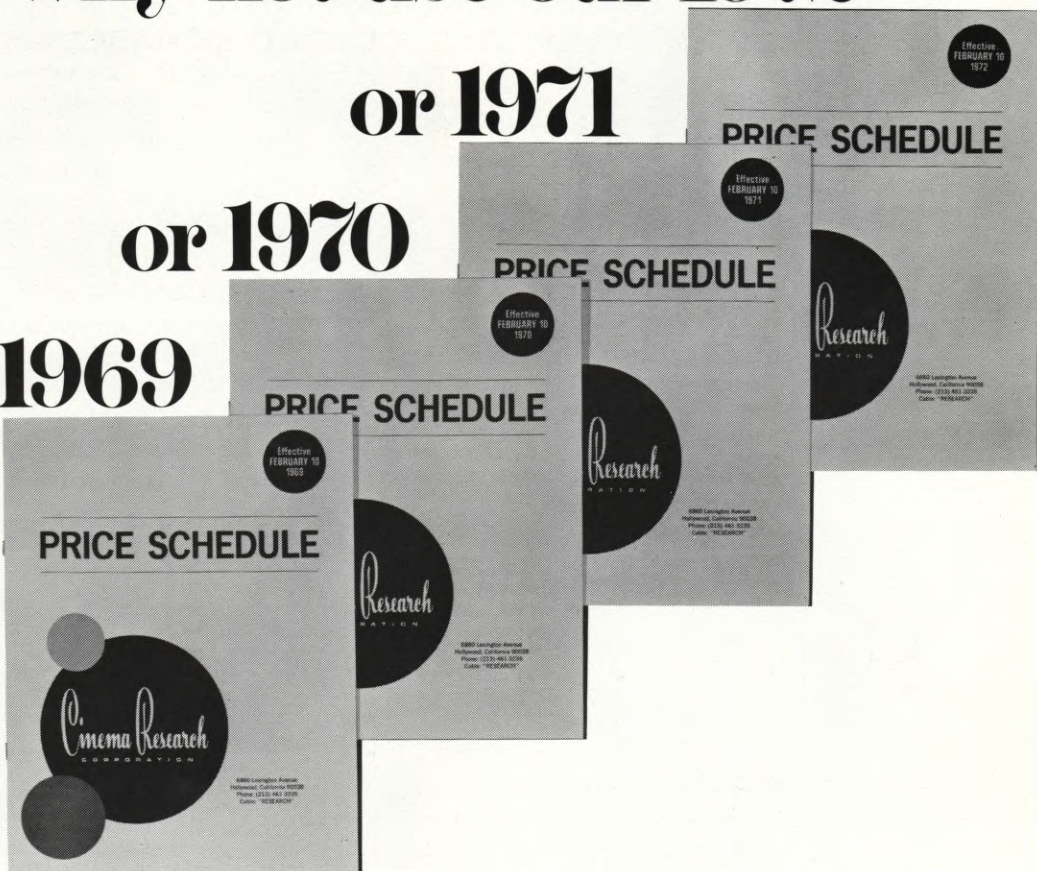
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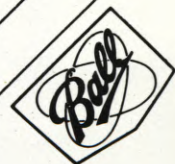
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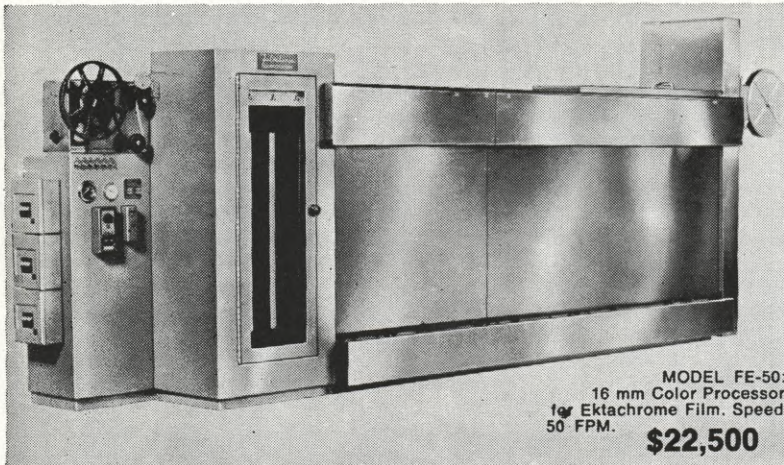
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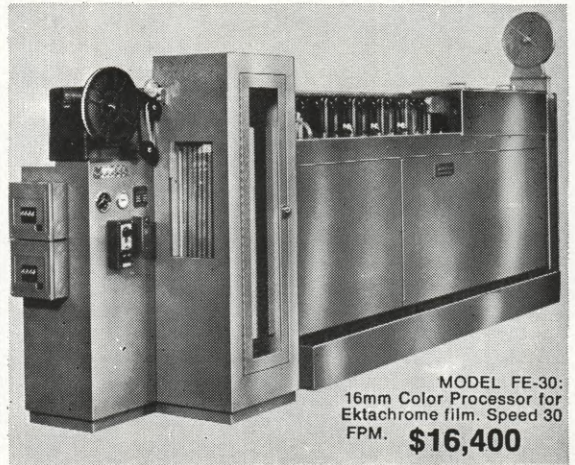
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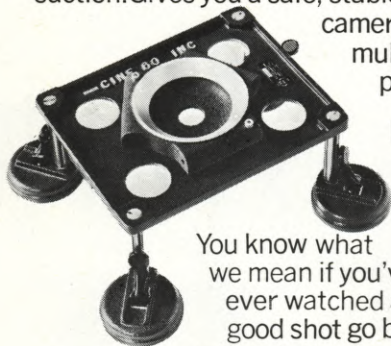
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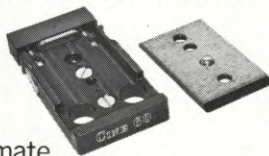


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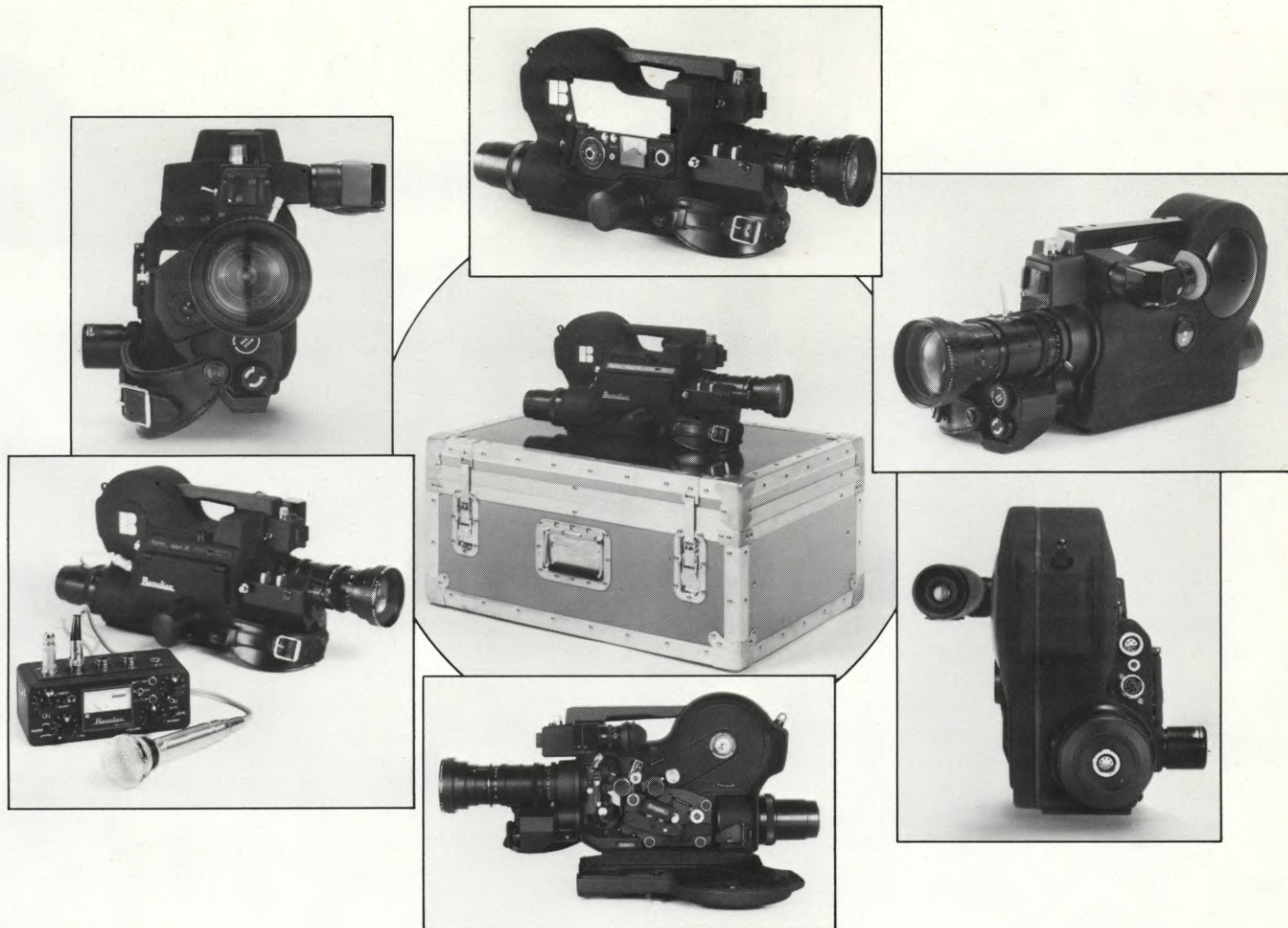
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THE FLORIDA FILMING SCENE

Roving Editor discovers
a whole world of busy and
turned-on film-makers in
America's "tropical paradise"

By HERB A. LIGHTMAN

MIAMI, FLORIDA

What's a California boy doing in a place like this? Miami is very pretty (palm trees and water everywhere) and the skies are clear and full of puffy clouds. Neat! *But there aren't any mountains.* The whole place is as flat as a Women's Lib type's chest—and that bothers me. Not the chest—the fact that there aren't any mountains. I confess to myself that I'm hooked on mountains, and if I had a shrink I'd go and find out why. It's *got* to be something Freudian.

While I'm wrestling with my psyche on this point, up walks David Haylock, who is the boss-man of Miami-based Image Devices Incorporated, one of the foremost motion picture equipment rental houses in the area. We've never met before—yet he's managed to pick me out of the surging throng at the Miami Air Terminal. All those ugly pictures in *American Cinematographer* pay off in this way.

Dave is an interesting animal. He's very friendly-casual and looks as though he put on whatever he happened to grab first as he groped his way out of bed that morning. But I sense that beneath that hang-loose exterior there is a whirling dynamo. He squirts energy from every pore and carries his own little magnetic field of excitement right along with him—the kind of man who has fun at what he's doing and can turn on the people who work with him. A busy working cameraman himself, Dave manages to run a thriving business at the same time—and does it most efficiently. Beneath that slightly wacky exterior is a very squared-away cat.

On the way toward where I'm going to stay we stop off at Image Devices, where a very young crew of guys and gals is busily working away, even though it's late in the day. They are a very with-it group and obviously turned-on to what they're doing, just as I knew they would be.

Dave's faintly Playboyish bachelor pad is adjacent to the work areas. "I have to live where I work," he explains—and it figures.

I am introduced to one of Dave's right-hand people, Harriet Pompeo. She's a very pleasant and efficient gal who might well be described as "a young Earth mother type"—all warmth and comfort. I almost expect her to

(LEFT) "Miss Teenage America" getting makeup for Kraft commercial shot at Cypress Gardens, Florida, by Mattco Associates of McHenry, Illinois. (CENTER) The Mattco crew sets up a shot. Producer Dick Matt in blue shirt. Glenn Kirkpatrick on camera. (RIGHT) On Palomar Pictures' "THE HEARTBREAK KID", Director of Photography Owen Roizman (directly behind camera) checks car rigging in Cine Tech backlot, while Director Elaine May looks through Panavision camera.



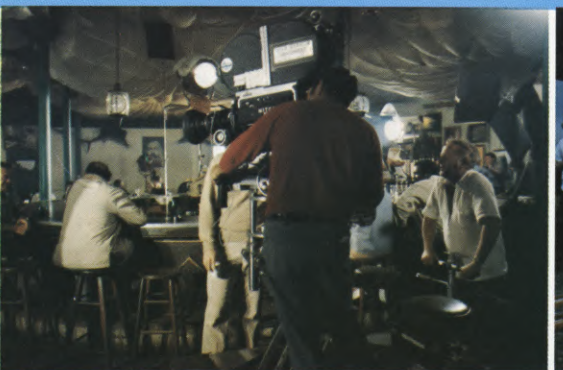


(LEFT) Three camera crews set up to shoot Wrigley's Spearmint Gum commercial in Orange Bowl Stadium, Miami, Florida. (CENTER) Pretty majorettes go through their paces with giant-size Wrigley's Spearmint packages during filming of spot. (RIGHT) Crew, working in three sets of clothes, prepares to shoot TV spot at 25 degrees below zero in environmental chamber at Eglin Air Force Base. Arriflex in heated blimp, with special 25mm-250mm zoom lens, worked perfectly for three days.



(LEFT) Production crew for Wylde Films Corp., of New York, sets up to shoot Lipton Tea commercial on Ft. Lauderdale location. (CENTER) Director Bill Hudson checks camera angle, while Cameraman Glenn Kirkpatrick (in colorful hat) looks on, prior to shooting Lipton Tea spot. (RIGHT) In San Juan, Puerto Rico, Cameraman Bob Gaffney gets behind Tyler Mount to shoot helicopter scene of "falling suitcase" for American Tourister commercial. Action was also covered from the ground by New York crew, with four cameras.

(LEFT) Crew for Raver Films, New York, shoots scenes for automobile commercial in Vizcaya Gardens, Miami. (CENTER) Crew of Warner Bros. feature, "KEY WEST", with Ted Voightlander, ASC, as Director of Photography, shoots on location in famous Ernest Hemingway hangout. (RIGHT) Setting up dolly shot for automobile commercial in Vizcaya Gardens, Miami.



(LEFT) Crew of Wylde Films Corp., New York, shooting "Doublemint" TV spot with famous Doublemint Twins on Biltmore Country Club golf course. (CENTER) Cameraman lines up a shot of the Doublemint Twins. (RIGHT) Four cameras on the ground in San Juan, Puerto Rico, line up to shoot scenes for American Tourister "falling suitcase" commercial.



coming rushing at me with a bowl of matzo ball soup. Harriet has kindly volunteered to be my guide-about-Miami.

I'm curious about this place. I know, of course, that it's considered to be one of the four major motion picture production areas of America (along with Hollywood, New York and Chicago), but that image doesn't quite jibe with my first impressions of the place. Driving past literally mile upon mile of cheek-by-jowl hotels and motels, you get the idea that this is one big tourist haven—more plastic in its own lush way than Las Vegas. But I am to find out that, in regard to the motion picture industry, at least, it is a place where a lot of talented people work very hard and enjoy being part of the magic of the movies. There is a special aura of energy and excitement about the Florida Filming Scene.

After I've had a chance to settle in at the Racquet Club on Harbor Island (a fine location for a movie), I ask Dave Haylock to brief me on an overview of the Florida filming scene. Since he wears two hats (as film producer and film equipment supplier), it strikes me that he would have a kind of three-dimensional aspect of the whole situation.

"I think that a major trend for Florida production right now is in the direction of electronically-oriented equipment, used in conjunction with film equipment," Dave tells me. "There seems to be a lot of direct shooting in video—especially commercials. Features, of course, are another story. But whichever method is used, there is a great emphasis on the use of smaller, more portable equipment of the type that will enable film companies to locate themselves wherever they want to go.

"As for the pluses and minuses of shooting in Florida, I would say that the most positive elements are the good shooting weather, the favorable attitude

and cooperation of the unions, and the fact that the general expenses that are incurred in Florida are lower than they would be in the larger production areas. How long it will stay that way I can't say. Film production is still something of a novelty here and the local people are still excited about it, but it always happens that after you've been making movies in an area for a while, the local people become less enchanted and the prices for everything having to do with filming start to build up. Even the charges for locations start to graduate upwards.

"On the negative side, I would say that the main disadvantage is the intense heat and humidity in the middle of the summer. This adds up to a lot of discomfort when shooting on exterior locations. It has been the pattern in the wintertime for everybody to split from up north and come down here to shoot. But I've noticed that more and more are coming down here in the summertime and shooting, in spite of the heat. The ease of shooting water stuff and the proximity of the Islands probably account somewhat for this.

"The other disadvantage that I could think of would be the lack of mountains. A location with an altitude of 36 feet above sea level would probably be the highest place you could find around here. There are certain locations that we just don't have here—but we do have old Spanish mansions and other things that can be used for locations. There is a certain lack of variety in other aspects, but that doesn't seem to bother the people who just come down here to shoot for a couple of weeks. They just shoot their thing and go.

"From where I sit, I'd say that all types of filming are on the increase in Florida—although which is gaining on the other, I don't know. The gain is mostly in the production of commercials and industrial films. However, there seems, also, to be an upsurge in

feature production. Five or six years ago a few features were being done here, but they were exceptions to the rule. The local investors had no idea what a real movie company looked like, and a lot of guys were taken for a helluva lot of money. But I'm sure that the big money people, the ones who are seriously interested in backing feature production, are a lot more educated now.

"I think that Florida is probably bringing back some of the foreign production—American-produced pictures that were formerly made in Spain and Italy. These producers have realized that there are governmental and other kinds of difficulties involved in splitting off to places like Spain. In the case of a Hollywood production shooting in Spain, they're stretching the umbilical cord to about 6,500 miles. Instead, they can come here and sneak over to the Islands if they need exotic locales, but in a matter of microseconds, by direct phone dialing, they can contact their headquarters and get whatever they need—fast. At the same time, they're buying American-made batteries and American this and American that—which should help the balance of payments situation."

Even though natural locations are a big magnet to draw production to Florida, the fact remains that not everything can be (or should be) shot on location. There are times when the better part of valor is to shoot on a sound stage. And so, I tell Harriet that I'd like to see some of the studio facilities that are available. There are many small stages in the area, but she suggests that we visit a complex which has some of the largest.

Studio City, as it was originally called when it was a private facility, is now known as WPBT Studio City, and is the headquarters for Channel 2, Public Television, Miami. It boasts the largest sound stages on the entire east coast, except for the NBC Center in Brooklyn, New York. There are two air-condi-

(LEFT) With jet-dyed hair, and wearing the clothes of a 30's Mafia don, Mickey Rooney quips with the director and producer between set-ups on "THE GODMOTHERS", filming in Florida. (RIGHT) The "two-man-band" of Cinematronics, Inc., in Fort Lauderdale, Florida. Vice President in Charge of Production Dave Englund (left) and Jaf Fletcher, President, study a scene on the Moviola. Both men are capable of handling a complete shooting assignment alone—and they like it that way.



tioned, soundproof studio stages, 125' x 80' x 40' each, or 10,000 square feet each. In addition, there are 10,000 square feet of offices, production rooms, film laboratories and equipment storage areas—a really outstanding production complex. These facilities, I am told, are available for "limited" rental by outside producers.

The most complete production complex in Miami (and in all of Florida, for that matter) is the Ivan Tors Studios. With four large sound stages, complete scene docks, extensive wardrobe, props, sound and editing facilities, it comes the closest to being a real "studio-studio" in the Hollywood sense of the term. Indeed, it was built in the days (10 or 11 years ago) when the dynamic producer, Ivan Tors, had descended upon the town with bright hopes of turning the Miami area into "another Hollywood"—a vision which never quite materialized. However, during his relatively short, but energetic, reign as czar of the local filming scene, Tors did manage to create considerable excitement and production activity. His "FLIPPER" and "GENTLE BEN" TV series, together with a steady flow of independent features utilizing the facilities, kept the studio humming.

When Tors packed up his animals and departed the local scene a few years ago, the studio complex, as I understand it, was sold to the Norin Corporation. Still called Ivan Tors Studios, it remains a superb production facility—though a bit down at the heels. Ostensibly it is available for rental to anyone who wants to use it, but I gain the impression—and I emphasize that this is strictly my *personal* impression—that no one appears to be really vitally interested in renting it out. The premises are indifferently maintained by a skeleton crew holding the fort and the people charged with renting the facilities seem a bit difficult to get hold of.

Though a lack of time precludes my visiting Florida production centers other than the Miami-Fort Lauderdale area, I am told that modern studio facilities either exist or are under construction in other areas of Florida. For example, in Tampa there is being spawned a new "giant motion picture complex" which will cost its backers 8 to 10 million dollars of investment in land, buildings, modern filming equipment and sound facilities. Its entrepreneurs claim that, when completed, the Cinema City Studios will be able to accommodate over \$100 million in independent low and medium-budget films and TV productions annually. Cinema City Studios last summer opened temporary quarters adjacent to the site of the new complex



Egon Stephan, President of Cine Tech, Incorporated, of Miami, is one of the busiest working cameramen in the area. He is shown here about to be hoisted in an exotic rig to shoot a spectacular scene for an airline TV commercial. He maintains that film production is on the rise in Florida.

and immediately began scheduling commercial, documentary and feature productions for the 120' x 130' sound stage. The volume is said to have grown to a calendared \$5,999,000. for 1973 and includes six full-length features by independent producers, three Cinema City productions, as well as commercials and documentary productions.

The huge complex, upon completion, will be headquartered on a 250-acre mass of land and will include 10 or more air-conditioned sound stages, a color lab building, sound studio, video facilities, administrative and rental office building for independent producers and related businesses, a 250-room hotel and restaurant-lounge, dinner theatre, premiere motion picture theatre, dressing room cottages, recreational and health spa facilities. Unique is the planned "foreign villages" unit of the complex which will house shops selling the exports of various countries as well as providing authentic backdrop for foreign scenes. Each village will comprise about five acres of land. A western town and New England street will also be included in the "village" complex.

Located in the center of Florida, halfway between Tampa and Orlando, is Patterson Studios, which was "started small" by John Patterson in 1964 and now claims to be "one of Florida's largest production houses". It includes shooting stages with 24-foot ceilings and walls covered with insulacoustic material for good sound rendition. There are sound recording stages with 35mm recording equipment and a studio mixing console. There are editing rooms with 16mm and 35mm Moviolas and a car-

penter shop for set design and construction. Everything is complete under one roof.

John Patterson says: "I like being based in Central Florida because I don't have the problems production houses have in big cities. I can produce less expensively here and give the client personal service and a quality product."

He claims that a good percentage of his studio's business comes from agencies handling national accounts. These agencies, based in New York, Chicago and Los Angeles, often request locations that are *not typically Florida*. Patterson says that within a short drive of his studio are locations that will pass for Virginia, California, Pittsburgh, New Orleans, Maine, North Africa, Spain or Greece. When shooting is scheduled for one of these locations, Patterson simply loads crew and equipment into his specially equipped truck and he's off—literally transporting the studio.

Meanwhile, back in Miami, I am interested in exploring facilities other than studios, and the ever-patient Harriet takes me to visit the area's two foremost laboratories. There are many small labs in and around Miami, but the two largest and best equipped are Capital and Reela.

I am very kindly given conducted tours of Capital and Reela and, while they may be modest in comparison to the largest New York or Hollywood labs, they both offer complete facilities and services. Judging from the equipment I see and the personnel I talk to, I would say that both are capable of handling any project from 8mm to

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THE PRODUCTION OF "CATCH THE BLACK SUNSHINE"

A Hollywood actor returns to the remote wilds of his native Florida to make his first feature as writer, producer, director and star

By CHRIS ROBINSON, *President,*
One Way Productions, Inc., Boynton Beach, Florida

I was born in Florida, and it was such a "small" state at the time—nothing but wilderness and beauty. I wanted to get out of there and, when I was fourteen, I got out. When I was seven years old I'd had a taste of California and Hollywood and the movies and, at seven years old, I felt somehow that that was where I

wanted to be, strange as it may seem.

Every kid I knew when I was a teenager wanted to get out of Florida, because there was nothing there but natural beauty, but after you've been away eight or ten years and get a little smog and a little pollution and a little of the hustle-bustle of cities, you go back

to Florida and begin to appreciate what is there, the very things you couldn't tolerate before because you wanted the "Big Life".

I spent a lot of years in Hollywood as an actor and I still love California, but four years ago I moved back to Florida. I had been under contract to Universal



(LEFT) Cast and crew of "CATCH THE BLACK SUNSHINE" wading in to shoot sequence involving the largest hand-hewn Indian dugout canoe in the world. Hollowed out of a single Cypress log, the canoe belongs to Chief Osceola, who also plays a role in the film. (CENTER) Canoes with camera platform lashed between them (for waterborne "dolly" shots) being prepared for towing into the swamps. (RIGHT) Camera is set up on the makeshift "catamaran" for shooting of swamp sequence.



(LEFT) As the two stars of the film pole their raft upriver, crew on floating platform paddles alongside to get dolly shot. (CENTER) The company sets up on Gulf Beach near St. Charles lighthouse. Director Robinson wears large straw hat to prevent color changes in his white albino hair, caused by the strong sunlight. (RIGHT) Director conversing with Director of Photography Tom Spalding and Script Supervisor Sally Roddy in the middle of the swamp.



(LEFT) A rainstorm moves in, threatening to trap the company with floods. (CENTER) Director, cinematographer Spalding and assistant cameraman Jim Signorelli line up camera for a shot. (RIGHT) Cast and crew taking refuge from Hurricane "Agnes", as it hit the Gulf Beach. Camera was set up in the lee of the building, while cast went down to the surf and shot a major dialogue sequence in the hurricane, with no dialogue dubbed. (Photographs by Dave Gatley, Robert Janus and Chris Robinson.)



and had worked on the "TWELVE O'CLOCK HIGH" TV series, but now I felt that I wanted to make pictures in Florida.

I did quite a few features in Florida, several of them for Ivan Tors and produced and directed six productions for the wealthiest playhouse in Southern Florida. Then I began to get interested in the technical end of filmmaking and bought a 16mm Beaulieu camera with a 12-120mm Angenieux lens, a fantastic camera.

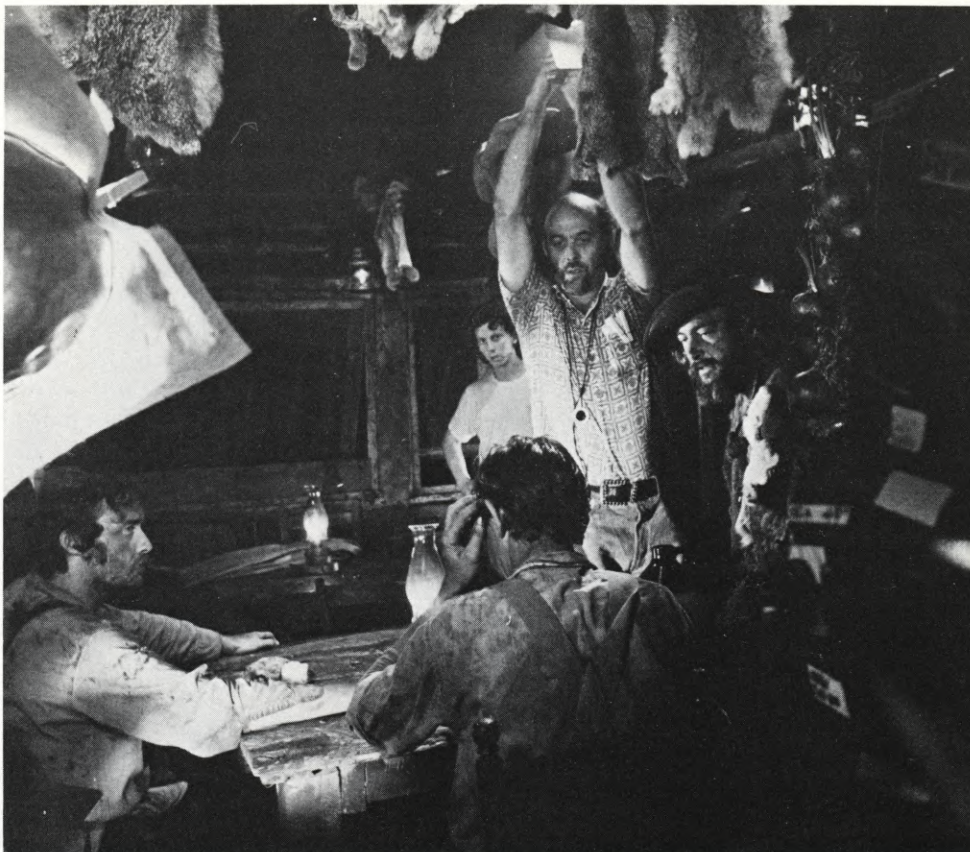
I had previously taken a vacation in the Bahamas and made a little documentary short using a \$250. 16mm Bell & Howell electric-eye camera. I literally kept the instruction manual in my hand all the time I was shooting. I didn't even know how to read an exposure meter. I just depended on the electric eye and my single 25mm lens. Surprisingly, every foot of film came out just fine.

Then, after I'd bought the Beaulieu, my press agent said, "Hey, do you want to shoot some footage for the Jonathon Winters Show? If they like it, they'll use it."

I decided to try it. They liked it and used it and I did another thing for them a month later. I did it all myself. I shot every piece of film and cut the thing myself, with a little bit of help from somebody in California. I mean, I was learning.

Now I had credits, two short documentaries that had actually been used in the Jonathon Winters Show. Deep down I wanted to do a feature, but I had no right to ask people to give me the money for a feature when I'd had so little experience in directing. But I just kept on shooting documentaries and preparing myself to direct a feature.

All the while I kept my eye out for a script that would really fit Florida. Most stories can be adapted to be shot almost anywhere, but I love Florida and I had



Director of Photography Tom Spalding adjusting inkie-dinks to augment kerosene lamplight for 1859 saloon sequence of "CATCH THE BLACK SUNSHINE". The locale, an authentic log structure of the period, is an historical building which, as a result of the filming done there, is now being preserved by the State of Florida.

to get a script that really fit the locale, something that would be exciting and still have artistic quality. I never was able to find such a script, so I decided to write one myself. It took a while to get it all together but, to make a long story short, that script became the basis for the picture we have just completed, the current title of which is "CATCH THE BLACK SUNSHINE".

"CATCH THE BLACK SUNSHINE" is my first feature as a director. I'd been putting the film together over a two-

year period, commencing when I developed the story ideas into a script. Pre-production included months of location scouting by airboat, airplane, auto, train and, finally, on foot, wearing Vietnam boots, through areas that not only had not been photographed before, but where man had never set foot. (I can't, of course, speak for the primitive Calusa Indians, who may have explored the region 500 years prior to this writing.)

My desire to shoot the picture in the

(LEFT) Food supplies floated along with the film company, in many instances, as is the case with buoyant thermos ice chest which held cold drinks for cast and crew. (RIGHT) Crew members push a car out of the mud during one of the several torrential downpours which took place during the shooting. Fortunately, the script called for a hurricane, so that some of this inclement weather was not a total loss.



swamp areas called for in the script presented great difficulties for my cinematographer. I also wanted to film totally with available and natural light—and when you have night sequences inside an ethnic 1859 saloon, lit entirely by candles and coal oil lamps, you can imagine how difficult the situation can get.

The swamps and water conditions made it impossible, by conventional methods, to achieve the elaborate dolly shots I wanted. No tracks could be laid. Yet the end result is a film which includes a tremendous amount of trucking and dolly shots.

Another interesting dilemma was posed by a lightning storm that was supposed to take place in the center of a swamp where no generator could be

hauled to produce sufficient power for the lightning effect.

On top of that, we needed a hurricane to perform on cue for my leading actors to play a scene on the beach.

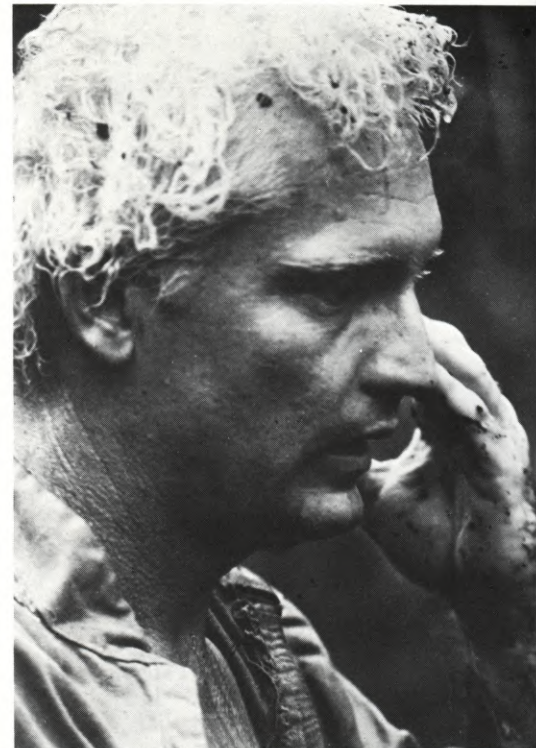
In the course of what follows, I shall attempt to explain how we accomplished each next-to-impossible task:

1. **AVAILABLE LIGHT**—Approximately 95% of the film was shot exclusively with available light. We ran extensive tests with candles and coal oil lamps. We found that by pushing Eastman 5254 negative two stops, we got more grain than I was willing to accept in terms of quality. (I have strong feelings on several subjects, one of which is that I feel it is possible to get artistic and spontaneous shots without having to be saddled with grain.) As a result, for all candlelit scenes that we could not photograph by pushing 5254 one stop, we cheated by adding 100 or 150-watt inky-dinks. What is interesting to me is to view the film and attempt to determine which scenes were lighted totally by, let's say, a campfire or a match lighting a cheroot, and which had to be assisted by the miniature 150-watt lamps. We also located a very small generator, one that weighed about 25 lbs. and which put out enough power to run a portable electric handsaw. It produced a better kerosene-color light on film than a big studio-type generator would have.

There are several night sequences that were lighted totally by means of man-made fires, matches, etc., with no assistance from lights or generators. You can see all that the audience needs to identify—and yet, there is no grain. Sometimes we were on location where there was no dry land whatsoever, and we had to build fires right in the middle of the swamps.

Since the majority of the film was daylight exterior, we used available light

and, many times, available *shade*, which is another little preference of mine. I staged a love scene with the camera dolly behind the actors until they paused and rested in the shade of an old building. The dialogue actually started in the shade and, for that love scene, the actors were lit by the softest, most pastel light possible. Of course, the real secret to getting scenes under unusual conditions, I found, was in having a Director of Photography and a gaffer who could, in the 5% of the film where it was required, add just the right touch of artificial light to make the scene work, yet still make it look as though it

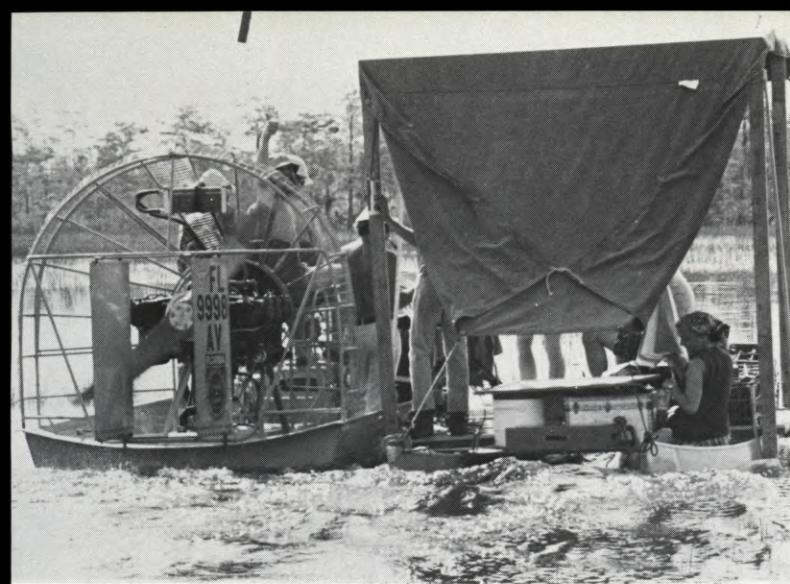


Spattered with mud from a romp through the swamp, Chris Robinson, in the makeup of an albino black, ponders the mixed blessing of being writer, producer, director and actor in the same film. His decision: too much for one person.



(ABOVE LEFT) Crew members try out bosun's chair (to be used as "floating" camera platform), which they have just slung across a creek. During shooting it was stabilized by means of several guy ropes. (BELOW LEFT) As company takes lunch break, the bottoms of the boats represent the only "dry land" anywhere around. (RIGHT) Airboat approaches the stilt house, built by the company with great difficulty in the middle of a remote section of the Everglades, only to be destroyed during filming.





(LEFT) Airboat maneuvers camera platform consisting of two canoes lashed together with rain shield above. This homemade "catamaran" made possible smooth dolly shoots through watery areas where wheeled vehicles could not go and dolly tracks could not be laid. (RIGHT) Crew members ride Bombadier, a swamp vehicle similar to a snow-cat, which was used to haul supplies to locations where even four-wheel-drive vehicles were unable to go after days of torrential downpour.

had been filmed entirely by natural light.

2. HOW TO DOLLY OR TRUCK IN FOUR FEET OF MUD, SLUSH, WATER:

(a) *FLOATING DOLLY*—We built in several different locations a floating platform. It sounds simple at first, but this is not a normal body of water your camera has to float on. In most cases it was airboat country, and no normal boat or raft would work, due to the shallowness of the water, the heavy growth of weeds just below the surface and the two feet of oozing mud on the bottom. We ended up using two canoes fastened together with 4 x 8 sheets of plywood for the platform. The draft of the canoes was shallow enough and there was a minimum amount of weight and resistance, as well. With the two canoes joined together like a catamaran there was a great degree of stability. (Of course, conventional craft couldn't even be *towed* into most of these regions.)

The next problem was that of propulsion and it was solved by pressing

into service the latest type of "slave" power (six "coolies" pulling the rig, as the actors worked alongside—with water moccasins frequently gliding by.) The crew, with fore lines up front and stabilizing lines to the side, walked through the swamp, pulling the camera platform alongside the actors.

(b) *ZOOM DOLLY*—I have another very strong sentiment about zoom shots, and it is best expressed by the following production note which I had printed in the front of the shooting scripts: "The reader will note that the zoom lens is used quite frequently. I realize that my feelings are rather strong and I will offend many, but I feel that the zoom can be used simply. Contrary to the belief of most people, my philosophy regarding the zoom will not permit the audience to be aware of zooms at any time. The zooms will merely follow the action of the story and one will never be aware of the crudeness of zooming in and zooming out."

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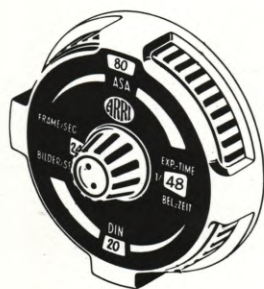


(ABOVE RIGHT) "Mary", a tame hawk, lights on top of Arriflex in the middle of the swamp. (BELOW LEFT) The hawk swoops down and perches on the shoulder of startled assistant cameraman, James Signorelli, as he slogs through the water. (RIGHT) Sawmill being rigged for eventual destruction. In the film, it collapses when protagonist pulls the main prop loose. About 95% of the action of the picture was daylight exterior, with natural light being used exclusively.



Arri 16BL's APEC: Does the pro *need* a built-in meter?

With your eye at the eyepiece, you can frame, focus *and* set the f stop. Accurately — and fast. It could save the shot.



Sceptics were dubious in the beginning. "No substitute for a hand-held incident reading," they said. For lighting a set, we agree. No contest.

But in documentary situations, there's clearly nothing better than a meter set behind the lens. Because it tells you *precisely* how much reflected light is getting to the film.

Does it read the whole frame?

No! APEC reads a central area of the frame — about one-third of the full aperture, regardless of focal length. If you

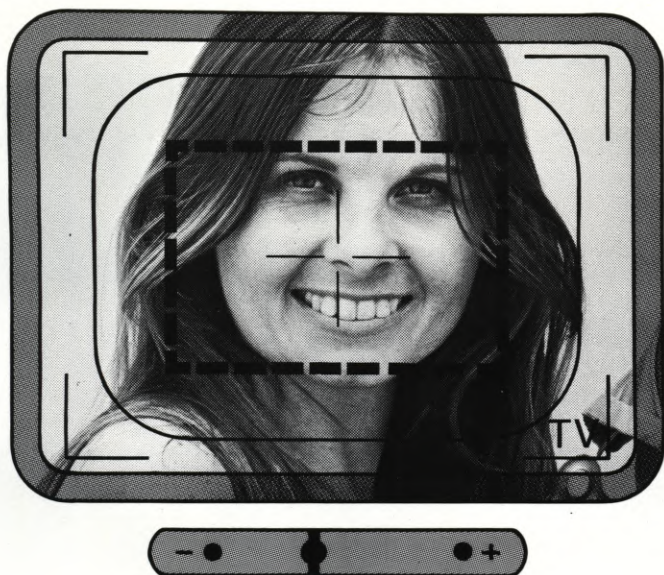
zoom in to 120mm, for example, you get a closeup reading of 3 degrees. (See the photo on the next page: the dotted line shows the measured area.)

How fast is it to operate?

Frame your subject, and focus. Then center the APEC needle, by turning the f stop ring. That's all! And all with your eye at the finder. You take the reading and set the stop *all in one movement*.

Reading inaccessible subjects

Zooming in for an APEC reading is a lot faster than walking onto the set, of course. And sometimes it's not easy to *get* there. Shooting surgery, for example; or wildlife. Or a speaker at the podium.



See the reading during the shot

The needle is visible just below the image area, as you can see above. If the action moves from shade to sunlight, you can ride the f stop. (APEC is manual, of course—not automatic.) And this is a noteworthy fact: Some APEC users have gotten *one-light release prints!*

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APEC AT WORK:

Arena staff changed lighting without any warning — in mid shot!

Shooting a Jesus Movement rally at the Los Angeles Sports Arena, film-maker Roger Boller arranged the light levels ahead of time with the arena's staff. And before the crowd arrived, he took hand-held readings at various points in the stadium.

But when the rally began, its producers repeatedly lowered the lights for prayers, and raised them at dramatic moments, without warning—often in mid-shot! Mr. Boller just had to follow it from camera position with his APEC meter. *Every foot was perfectly exposed.*

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"BEYOND DISASTER"... WE HOPED!

By DICK LOGAN

Key Productions, Inc., Key Biscayne, Florida

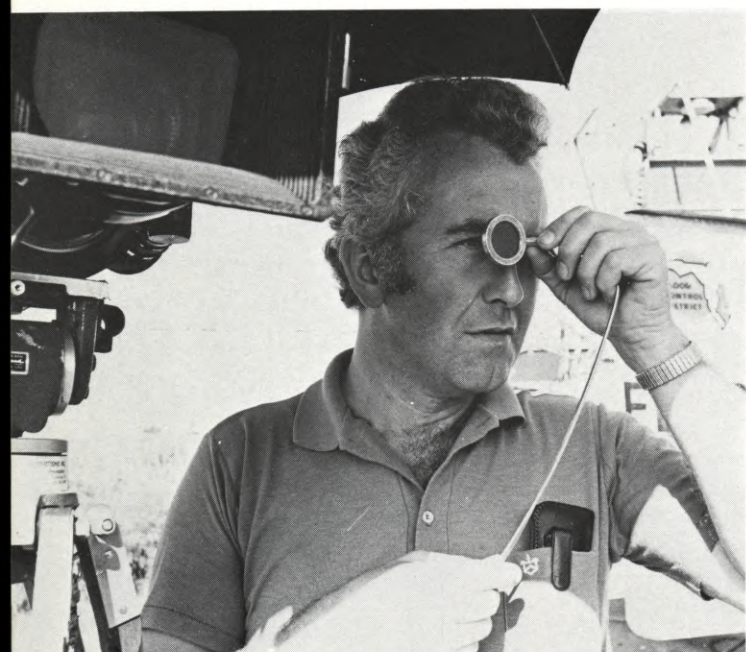
Hurricane-force winds up to 150 mph from the Northwest whipped Lake Okeechobee into giant waves. The Lake, the second largest within the boundaries of the United States, has an average depth of only 6 ft. The effect of the wind was similar to blowing into a saucer. The water all flowed to the South of the lake and demolished the low mud levee and poured over the farm

Control District. The specs called for the production of a 27-minute 16mm film on the chronological history of the second largest flood control and water management project in the world.

The story of the storm was chronicled in a book by Lawrence Will. Will's book is a collection of first-hand accounts of various points of view of the storm. It was our decision that

lenses on our Arriflex camera were the first limitations that we imposed on ourselves. Watching "THE LAST PICTURE SHOW" and reading Robert Surtees' article on the same gave us more ideas. We wanted to get that grainy look and a chalky appearance to the whites characteristic of orthochromatic rendering.

We shot a series of tests under



(LEFT) Cinematographer Dave Englund makes final check on scene through ortho viewing glass. Note ortho filter in matte box, used to lend a chalky appearance to the whites, an effect characteristic of ortho-chromatic rendering. (RIGHT) Water played into the airstream of a wind machine produced a very realistic horizontal rain effect.

lands. Thousands of people were in the path of this destructive force. Two thousand people were to die that night in September, 1928.

The working title of the film was "BEYOND DISASTER". The script, written by Richard P. Buch, called for the first six minutes of the film to depict the last few hours before, and a few hours during the 1928 Okeechobee hurricane. All this on a budget that necessitated a small crew, a lot of cooperation from local interests, and luck. The assignment was given to Key Productions, Key Biscayne, Florida by the Central and Southern Florida Flood

Buch's script should use the same vignette technique, thereby eliminating the necessity of photographically making the lake overflow in one great spectacular scene, like parting the Red Sea. The vignette technique allowed us to limit the scope of the camera so that wind and rain effects could be kept within reason.

The photographic technique was developed by our cinematographer Dave Englund and myself. We looked first at a collection of 1928 storm footage that was available through Sherman Grinberg. The static camera and the use of normal (25mm) and wide angle (12mm)

various conditions of light and with different filter combinations. Our tests showed that we could get the best results by using a dark red (25A) filter on 16mm Plus-X reversal, shot in bright sunlight and underexposed one or two stops, depending on the direction of the light. We used a couple of aluminum reflectors to fill the back-lit shots.

Since about half the scenes were day-for-night or interiors, the technique varied. On interiors we used 250-watt photofloods installed in oil lanterns, sometimes as the only light source. The balance of our lighting equipment consisted of four 1000-watt quartz lights, a

small generator and a rather large, but effective flashlight constructed around a 350-watt Sun-Gun by our prop man, Sam Lorino. The latter worked beautifully in day-for-night scenes shot in bright sunlight. After editing the workprint, the lab (M.P.L.) made a corrected black and white master. This was eventually cut into the A & B rolls. The rest of the film was color. The black and white had a brown tone added during the printing of the color internegative.

Next came the wind and rain. Larry Nunn, the associate producer for the FCD, put together the best and most cooperative special effects crew ever assembled. He requisitioned two 300-HP Lycoming powered airboats, one 500-gallon water tanker and had the FCD sign shop construct many of the props, such as a vintage gas pump and a radio. All this equipment was manned by a crew with no film experience, but a lot of enthusiasm.

In the larger scenes, the airboats were backed into position on their trailers and the velocity of the wind measured by a hand-held Dwyer wind meter. It was important that the wind be at the correct volume to accurately depict the rising intensity of the storm. We were able to get sustained winds up to 80 mph, 25 feet from the source. Water sprayed into the props of the boats and boxes of leaves and debris dumped into the airstream completed the effect. Wind and water for closeups were provided by a silent 20-inch window fan and a pressurized spray can. Aircraft engines make a tremendous racket at that distance, but that did not stump Bruce Beattie, Key Productions president, who was doubling as mixer. For the dialogue scenes we used a transmitter mike under actors' clothing and relied on wild tracks to cover the long shots.

While most of the locations were original homes, gas stations, and barns that had withstood the storm, some were not, and one of them was a bonus. We spotted a corrugated steel garage that was being dismantled by workmen.

Our crew brought this to my attention and suggested that we rebuild it. Within one hour our crew had laid the corrugated metal back on the original frame of the building and, with one giant blast from the two airboats and the water truck, blew it down again and created one of the most spectacular scenes in the film.

Casting the six speaking parts and twelve non-speaking parts, as well as the costuming, were additional challenges. Larry Nunn and I contacted a theater group in Clewiston, the largest town on



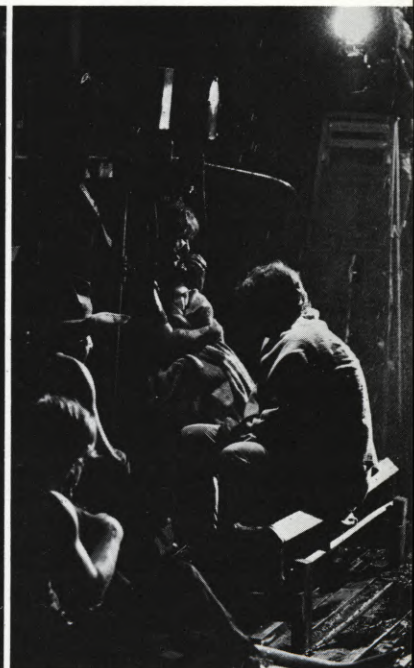
One blast from the airboats at full throttle blew the side off this reconstructed building. Decision was made to use "vignette" technique, rather than photographically making the lake overflow in one great spectacular scene, like the parting of the Red Sea.

the South side of the lake and, in one night, cast the 18 parts and had the promise of a cow. Some of the cast had witnessed the storm as children. Some were descendents of victims of the storm, but more important, all had the regional accent of the Lake people. Costuming was completed with the help of a local farm store and the Salvation

Army.

The weather was in our favor. We had bright sun every day and hordes of mosquitos every night. In five days we were able to create enough wind, rain, mud and excitement to make a credible six-minute version of the third largest disaster in American history, the Okeechobee hurricane of 1928. ■

(LEFT) Director Logan, doing a bit in the film, gets a "no, not again" look from the youngest actor, as he tells the crew to shoot it one more time. (RIGHT) A group of people huddled in a packing shed at the height of the storm, about to get full treatment of wind and water, as the shed blows down.



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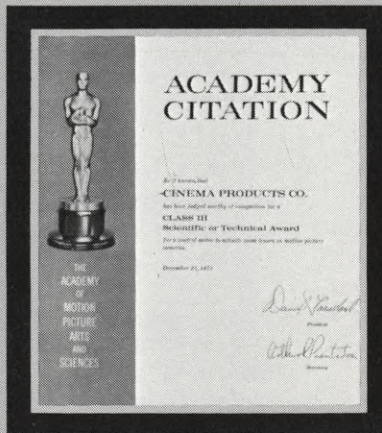
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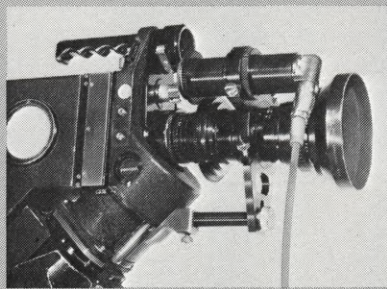
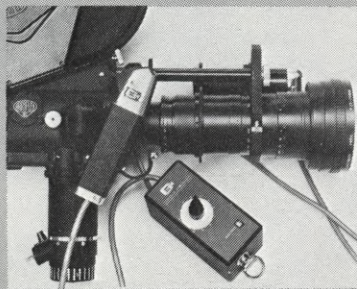
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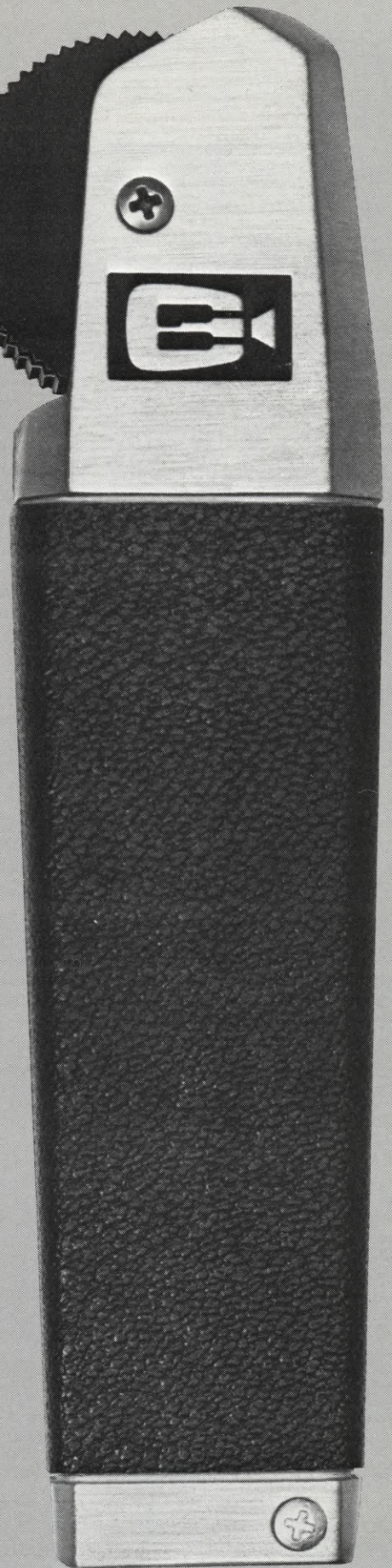


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FORMER HOLLYWOOD PRODUCER TALKS ABOUT THE FLORIDA FILMING SCENE

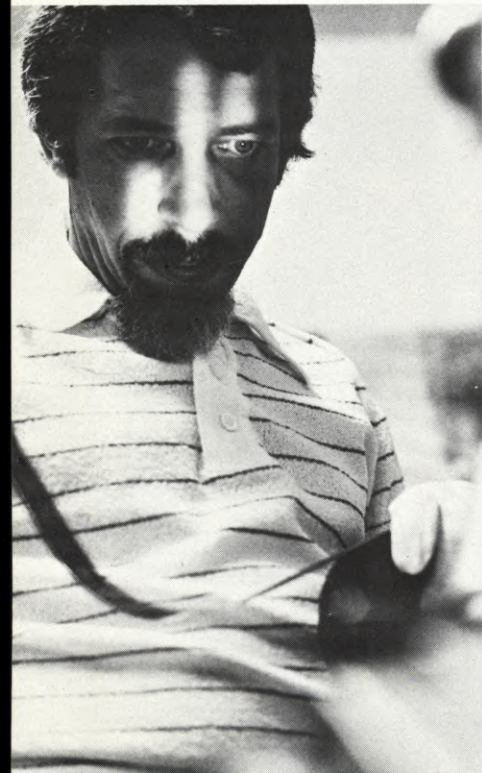
An ex-patriot Californian tells how he happened to come to Florida and why he later decided to stay and form his own film company there

By STANLEY COLBERT, *President Minifilms Productions, Ft. Lauderdale, Florida*

First of all, one of the key things that must be considered when you want to appraise the film situation in Florida is that it's very crucial as to what month you choose to come and visit. If you choose a time when it is cold in New York or snowy or terrible weather, film-making is good down here. We still, to a large extent in this area, are dependent upon inclement weather elsewhere. And I would suspect that a large part of the business down here is done in the winter season. Like chipmunks, everybody kind of stores up all the nuts in winter because, come the warm weather, business tapers off.

My own feeling about it, and I think you would probably get very divergent answers from everybody you would talk to, is that Florida is the best location that I have ever seen. Now, I've used that phrase in trying to describe it to

Minifilm's President, Stanley Colbert, views original material just returned from the lab. He says being away from California allows him to become involved in all phases of film-making.



people who want to come down here to shoot and sometimes they understand what I mean and sometimes they don't. It is not a production center, in my opinion, and I'll add, "in my opinion," because there are people who will tell you that it *is*. But it's not a production center. You can't put five crews together to shoot five feature films simultaneously. You might be hard put to get even three first-class crab dolly operators. You might be hard put to get three crab dollies down here, but, if you are a pro, and if you know what a location in its ideal form can be, there is no finer location for filming anything than here.

We do have first-rate technicians down here. We do have studio facilities down here. We have recording facilities. We have laboratories that, I think, over the years have improved tremendously, which one can without any qualms, make use of. We have post-production facilities. We have extremely complete equipment sources, with technicians who can, despite what we said about the shortage of really good technicians, keep equipment in first-rate condition. You don't have to bring equipment down here of that sort.

But, still, those are all the things that I would look for if I were looking for a location in which to film something. It doesn't have the depth that New York or California does, in any of these categories. It isn't possible, in my opinion, to operate as a film company with literally just an office, as you can in California, where you can go out of your office and rent your studio space, hire your crew, get your equipment, arrange for your raw stock, put everything together. Where you can even go on Santa Monica Boulevard and pick up breakdown sheets, if you run out of them, or strips to make a board. I mean, when I go to California—and I go out to the Coast maybe four times a year—I bring a shopping list with me and that shopping list is a weird one. Strips to make up a board, breakdown sheets, certain pieces of equipment that I can't get any place else, certain replacement parts. Those things that we, in California, took for granted.

The other reason I say it's a great

location is that it requires a producer who is a *working* producer to function here, whereas, in California you can be an *office* producer. When I was in California, with Fox or with Columbia or even with Desilu, I'd go down to the stage when I was shooting, spend a little time with the producer, and say "Hello, how are you?" I'd look at my dailies and, because of my own beginnings in this business and my interest, I'd go into the cutting room, I'd be there for the sessions and I'd know what was going on, far more than most of my contemporaries.

Here, it's the closest thing to having been a producer at Ziv that I can think of. Now, anybody who's worked at Ziv can tell you what I mean. I remember when I reported to Ziv to do "RIPCORD". My agent had made the deal for me and I had no feelings about Ziv one way or another—a great place to be; working was great; that was important. And I remember coming in and receiving a great welcome from everybody and I kind of casually said, "Where is my office?" They sort of looked at each other and they said, "Well, producers don't really have offices here. We like to see you out with the crew on location."

I didn't have an office. And not only was I out on location, but I was obliged to *do* something—makeup, wardrobe, wrap cable. The crew understood that the producer was just another hand out there, and so, that kind of an environment was very real to me. I missed that when I went into the larger studio operations. I really felt that I wasn't producing as such. I wasn't raising money. I really wasn't even casting. I mean I had casting departments to do that. You'd say, "Hey, do you know who I'd like?" and they'd kind of look around and say, "Aw, forget it, he's terrible." That was it; you really couldn't make a big fuss about it.

Coming down here to Florida, the very first thing that attracted me was that I sensed I could be, for better or worse, my own film-maker. The environment that I tried to create for myself here was to have the opportunity to fail. I never had that in California. There you knew whether you succeeded or failed

with your overnight Niensens in TV. And so you had 24 hours of potential success before you found out that Jack Benny beat the hell out of you or "PETTICOAT JUNCTION" laid you away, and that was it.

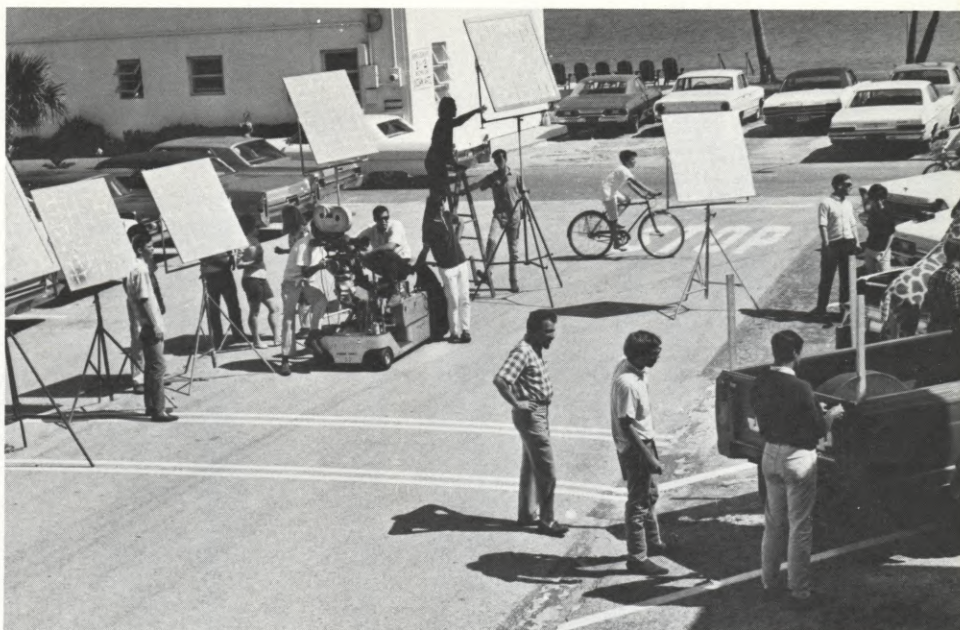
Well, I wanted to be able to try some things and fail, and this was something I couldn't do there. This is something I can do here.

I think the thing that stands between Florida being what it is—a first-rate location—and anything more, is that we've never attracted "above-the-line" people here. We have no pool of screenwriters of consequence or of inordinate talent or of desirability; we don't have that. We don't really know, in my opinion, what *direction* is, except when we see it come in with a New York company or a California company. If we see a Mark Robson come in we know that's a director. But for the most part, those of us here who find ourselves directing, whether it is a commercial or an industrial or a short or even a feature, we really don't know what directing is. We don't know what a director is capable of adding, in terms of the final product, as well as in terms of the bankability—and that leads me to the other thing that we don't have.

Because we don't have above-the-line talent in any kind of depth, we've never been able to make financing sophisticated enough to accept what is obviously a speculative venture, the making of a motion picture, but in such a way as to be able to offer the same hedging of one's bet that one does in California and New York with the above-the-line talent that you add to a project. It's not to say that we don't have capable people here who might be able to turn out a "BONNIE AND CLYDE" or an "EASY RIDER", on the one hand or a "LAWRENCE OF ARABIA" on another. We might well have them here, but we could never get the financing. The largest of banks down here are totally unsophisticated about what one goes through. I've often thought that the best investment we could make would be to bring one of the California film-financing bank specialists here to spend two weeks holding seminars with the bankers and to at least let them understand how he approaches the risk of financing.

So, what we really have is a physical environment that is, for the most part, dependent upon sources outside of our own geographical turf for our dollars, and for our above-the-line talent. As long as we have that situation, we are going to be a *location*; we are not going to be anything else.

I think that we have a much larger



Key to survival in Florida film industry is ability to shoot outdoors, making use of natural sunlight. Young Minifilms crew shown here represents extension of the concept of taking film majors straight from college and training them while they work on professional projects.

number of first-rate cinematographers here than most people realize and one of the problems is being able to convince those who come in that these people do have the capability to be more than just standbys.

I've often felt that it would be worth the while of the cinematographers to put together their own reel, a composite reel, and intersperse that composite reel with some clips from some of the best from California and New York and defy a producer or a director to discern who did what anywhere along the line. I don't think they could. That's not to say that everybody down here who is a cinematographer is great, because we have a lot of people here who like the word "cinematographer" and because they own a Bolex or an Arriflex they are now called that. This, again, is one of our problems down here. We have a lot of people who own a camera and who want to use it and work with it and what they turn out sometimes is crap. But, by the same token, we've got some really first-rate people.

I thing that when one watches TV, for example, there is a goodly percentage of national commercials that have been shot by cameramen down here with a quality that is not discernible from that which is shot in California or New York, in terms of what they are able to get. And in many ways, I find it sort of difficult to get across one point that I believe, whether it is scientifically based or not, and that is that our light here in Florida is different from California and New York light. And our

cameramen here, are far more skilled in dealing with the existing light that we have.

This is something that no one takes into consideration. They come down for the experience. It's rare that anybody says they want to come down and shoot 15 weeks of a TV series completely on your stage. If they did that we'd be in great shape. No one has ever done that and it would be fantastic. But they want to come down "for the experience." They want to make use of the sun that we have and they don't take advantage of the "interpreters" of that sun that we have down here, our local cinematographers. And this, I think, is a costly mistake. It just costs them more.

As for me, I'm in a very wondrous world since I've been here. I came here seven or eight years ago to run the Ivan Tors Studios. I made a feature for Columbia, using the studio. Ivan had been an old friend, and he said, "why don't you come back and run the studio?" Seven or eight years ago it seemed like a good idea for me to get out of California. At least, as a producer. I couldn't discern what direction the content of film was going in and so I really couldn't make any worthwhile judgements as to what I wanted to do. Also I had been a maverick. Referring to my first picture, "PRIVATE PROPERTY", I would say that anybody presumptuous enough to make a feature in five days, on location, for \$59,000, without ever having made a film before, *has* to be a maverick, and I never

Continued on Page 728



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A STREAMLINED APPROACH TO THE FLORIDA FILMING SCENE

By **JEFF NEWBY**, *President*

Allmand-Newby Productions, Inc., Miami, Florida

I am a Californian who moved to New York and then, five years ago, came down to Florida because I wanted to get back to something like the California Lifestyle. My primary intent was to work in commercials because I had done so much of that in California and New York. I also believed that what Florida needed was somebody to come down and really hype the area with talent. By that I don't mean that I thought there weren't any talented people here. I just thought, at the time, that these people weren't aggressively seeking an awful lot of business nor pioneering as many techniques as they could have been. So I came down and started another company, MJ Productions, which is still in operation and a very successful company.

The purpose of our company was to compete in the area of "sponsored"

Jeff Newby, who, besides being President of Allmand-Newby Productions in Miami, Florida, is also the company's award-winning Director/Cameraman.



films—meaning commercials or anything which is contractual, with winter being the big season. And it worked. What was good about it was that we came down with the New York experience and a lot of fairly good budget experience and we were able, I think, to help a lot of the other producers in areas, perhaps, where they had been falling down, and we found a lot of people emulating our style very fast.

What has happened in the last five years is that I've seen a group of very good producers develop—some that have come in since we did and some that had been here before, but hadn't been working up to their full capabilities.

What happened next was a kind of crash in the sponsored film business. There were a couple of years that were pretty lean everywhere in the industry. We were fortunate in Florida, though, because we actually never felt the pinch as badly as they did in New York and Hollywood.

I started this present company, Allmand-Newby Productions, because I wanted it to be a "streamlined" company. A streamlined company is one in which all of the bookkeeping is computerized. Very few people can do a lot of work because we're very well organized. We have all of the tools and equipment which we need to work with. I don't mean equipment like cameras and such. I mean equipment like special telephone systems which allow us to go on working in our cars and at home. We are very efficient in that respect. In addition, I brought in a fellow named Dan Chandler, who came out of the videotape business, and we merged our backgrounds so that now we have a full production capability company. Right now we shoot 50% videotape, 25% 35mm and 25% 16mm. To my knowledge, we are the only ones in Florida shooting that much tape. Florida is now, at least as far as we are concerned, equal with the rest of the country in this respect—which didn't used to be true. Florida used to be about five years late with everything.

We are shooting with portable electronic cameras and are very strongly into the use of film lenses on tape cameras. I wanted the artist to control

the cameras; I didn't want engineers to control them—which is why film cameramen have always stayed away from videotape. We discovered that there is a "C" mount adaptor you can put on the electronic camera that will allow you to use 16mm film lenses. Consequently, we've been shooting film-style on tape, and it's fascinating.

There are a lot of rules carried over from film which you've got to forget when working with tape. We've broken the rules of acceptable contrast that you must have. We've completely changed the type of crew that works on a videotape job. When we go out on a tape job, we take along a film equipment truck, and the one we take most of the time is the locally available Moviemobile. We take along one engineer, and he's the only tape man on the job. Otherwise we have a film crew: a cameraman, assistant cameraman, a normal complement of grips, and so forth.

We have a tremendous gaffer locally who is as good as anyone in the country and we've worked together a lot in the last couple of years. I took him on his first tape job, one where we were shooting in the shade on a beach, shots of a girl doing a simple one-line thing. I pretty much knew what we were going to need in the way of light, so I told him to bring out eight or nine FAY lights and seven or eight reflectors, and he said, "You're crazy, man."

I said, "Bring them out." He brought them and we had all of that on the girl. The beach was still too hot in the background, so we put a double net behind her to balance the light. He came up to me and said, "She'll catch on fire in there." But on tape it was beautiful.

We normally work with a soundman, although we're going directly onto videotape. He gives us sync beats up front and, primarily because he uses sophisticated wireless microphones, anything we need we can get quickly. He also uses tape recorders, just to give us protection. The kind of flexibility we've brought to videotape is what we've been doing on film and it's something I feel the rest of my competitors will get into as soon as the tape guys are able to sell them on it. They're so afraid of it here, and this is the same in New York and

Hollywood. There's only about a half-dozen guys who are pioneers.

We've got more depth of actors in Florida than we had five years ago, because a lot of them have moved here from other parts of the country, particularly during the couple of lean years. Also, a lot of good local actors have developed in the meantime. It's not true that you can't cast in Florida—even though a lot of people, particularly New York people, say you've got to cast in New York and bring your people to Florida.

The great advantage I see of working with a reputable Florida company, as opposed to bringing in an outside company (and I'm still talking basically about *contractual* productions), is that we have everything right here. We get it faster and I think that just the time saved alone means a tremendous savings on the dollar. Also, we have extremely good working relations with the unions. I have a union contract and it's as good as any in the country.

The availability of crews has become much better during the years that I've been here. That used to be a major problem. A feature would come into Miami and we wouldn't be able to get crews for commercials because the top guys were working on the feature. That's no longer true. I would say that now you can probably put 15 crews together simultaneously out of the Dade County area, and that will handle an awful lot of shooting at one time.

As far as feature production is concerned, it would appear that local money is becoming much more available. For years and years it wasn't. The history of Florida feature film-makers is fascinating. Presumably, back in the

twenties a group of people came in who tried to make this a "new Hollywood" and an awful lot of people were taken very badly. It's only because of people like producer/director Bill Grefé showing that you can make a profit shooting features that local money has become more available. In fact, I would say that local money is very readily available for a legitimate producer. It's a matter of being able to put together a business deal, instead of just having a great idea, and there are very knowledgeable attorneys here now who can manage to put such deals together.

We are getting some very good writers locally now. There is a sort of artists' colony in the Coconut Grove area, which is about a mile south of Miami, and there are some nationally well-known writers living there.

There's an awful lot of young guys breaking into the industry here. I know that not many producers give the unions credit for much of anything, but I must say that they've been terrific at working to accommodate young technicians. We've got some assistant cameramen in their mid-twenties who are excellent. We've got prop men, also in their twenties, who are first-rate. We've got a good mixture of older, highly experienced technicians and younger ones. I feel that, for the first time in this area, the idea of total cooperation is starting to jell. The unions, producers and suppliers are starting to work together.

When one discusses tape in relation to film, the main factor is that the coordination is much different. To me, shooting with a tape lens is like rubbing your belly and tapping your head with both hands at the same time. I don't feel that you can adequately control

your focusing when it's done with cranks. Using film lenses allows you to have a separate assistant pulling focus. Therefore, you can mark all of your moves and your cues. Secondly, it's been my experience that film lenses (and again I'm speaking mostly of zoom lenses, because they're the most commonly used lenses for commercials) are a little bit sharper than video lenses. Also, there's a wider range of film lenses available, which makes for greater flexibility. You can shoot with a 5.7mm or a 1000mm lens, whereas these are hard to find for electronic cameras.

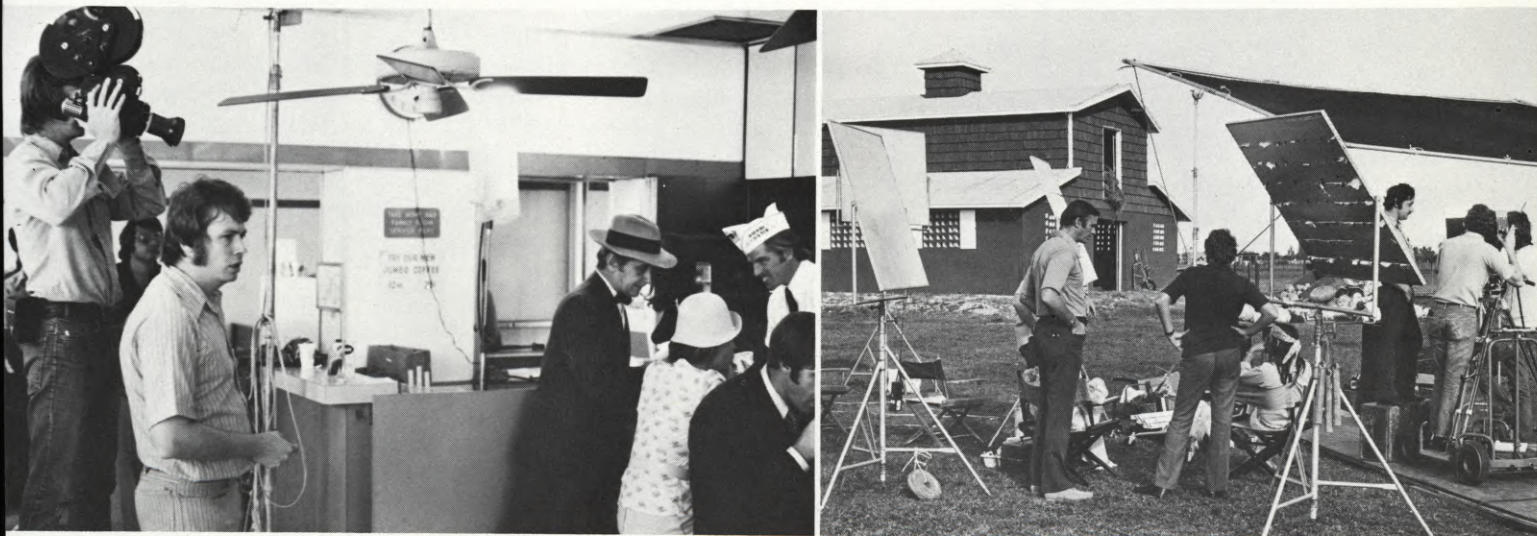
One great advantage is that we can instantly replay a scene after it is shot. If we don't like it, we simply erase it and save the slate—so that, at the end of the day, our dailies may be only 15 minutes long, but they are all good, selected takes.

There are no tape-to-film transfer facilities locally and we've had a lot of trouble getting good enough transfers that we can use as samples. We've tried almost everybody in the country, but I've yet to see one that could be considered of broadcast quality.

Perhaps the most important thing that is lacking in the local area is an optical house, and that's a serious problem. There are several groups interested in starting one up and I think that whoever strikes first is going to do very well. I know that our optical work alone would be enough to keep them occupied one day a week, and I'm sure there are enough other producers to keep an optical house busy here.

I must say that most of the film production in Florida is seasonal, a vast majority of it taking place in the winter. *Continued on Page 752*

(LEFT) Allmand-Newby Productions utilizes the identical crew and equipment complement when shooting film as when shooting tape. Here crew shoots in re-created 1938 atmosphere for a filmed commercial for Royal Castle restaurants. Cameraman Rick Anderson lines up Arriflex, while Newby directs. (RIGHT) Allmand-Newby crew on location with portable video camera, but using film lenses, film techniques and full filming crew. All lighting and grip equipment is common for film production. Also, assistant cameraman is in position to control zoom and focus changes, just as with film.



INDUSTRY ACTIVITIES

PROFESSIONAL PHOTOGRAPHERS CONVENE IN DENVER

"How does professional photography in Great Britain compare with that in the United States?" This question will be answered by three English photographers at the opening session of the PP of A 1973 Convention. The 82nd International Exposition of Professional Photography and 21st National Industrial Photographic Conference will be held August 5-9 at the Denver Convention Complex. Several photographers from various parts of the world will be in attendance and on the programs at the annual Exposition sponsored by the Professional Photographers of America, Inc. To answer the question about British vs. United States professional photography will be Ken Boyes, President of the Institute of Incorporated Photographers, PP of A's affiliate organization in Great Britain. Manager of the Birmingham Post and Mail Studios in Birmingham for 20 years, Boyes was a leader in the color revolution among the "GPs" (general practitioners) in Great Britain.

Richard A. Hammonds, a "GP" from the small community of Hereford, is one of the up and coming young photographers. Trained at the Gloucester School of Photography, Hammonds took over the family business of weddings, portraits and has the interesting specialty of official photographer for the Hereford Herd Book Society.

Norman Cooper brings a different viewpoint to the discussion. A former President of the Institute of Incorporated Photographers, this internationally known expert on sophisticated processing systems heads a consulting service for photographic businesses.

Another foreign program guest will be George Rolett of Paris, presenting "Photography with a French Flair." Sherman Hines of Nova Scotia will give a program on "Seeing Light." Werner Stoy, head of Camera Hawaii, will present "Your Files Have Money."

Tuesday afternoon, August 7, will feature a special youth program sponsored by the American Society of Photographers. Allan B. Starr of Phoenix will moderate a panel on "Perspective on Portraiture—Where It Is Now, Where It is Going." Panelists Joyce Wilson (Indianapolis), Charlie Chase (New Albany, Indiana) and Paul Linwood Gittings (Houston) will cover "The Female

Factor," "Youth Speaks Out" and "As I See It" respectively. A no-holds-barred discussion period will follow. For several years the PP of A has sponsored a youth program, inviting young photographers to participate.

The American Society of Photographers Masters Clinic will be held on Monday and Tuesday afternoons. Two panels of top pros will field any and all questions tossed at them, from business operations to sales to esthetics. Monday's group includes Virginia and LaVerne Friesen (Buhler, Kansas), Edward DeCroce (Denver), Joseph Matthews (Joliet, Illinois), Ann and Frank Fusco (Eastchester, New York). Headlining on Tuesday: Martha and Joe Zeltsman (Morris Plains, New Jersey), Jay Stock (Martins Ferry, Ohio), Al Gilbert (Toronto, Ontario), Mary and Dino Semprini (Elmhurst, New York).

A wide variety of commercial programs is scheduled. Jerry Cornelius (Tulsa) will lead a panel discussion on "Studio Modernization." Cornelius will reveal results of his current survey on this subject. George Heilpern (Hartford, Connecticut) talks on "Aerial Photography for Aerial Qualified Studios." Harper Leiper (Houston) will share his expertise and commercial photography experience. Young architectural photographer Wayne Thom (Santa Barbara, California) will cover "Architectural Communication, Unlimited." Hugo Brooks (Bethesda, Maryland) will moderate a panel, "You Are the Judge," a critique session on photographic work.

Portrait programs include: Leo Knight (Detroit) "Wedding Movies"; Arthur E. Cournoyer (Salem, Virginia) "All Brides Are Beautiful"; Jack Holowitz (Springfield, Massachusetts) "Extra Dollars for You." Paul Ness (La Habra, California) will present "A Different Approach to Sales; Ruben Schaller (Hartford, Connecticut) covers "Breaking the Ice"; and Robert Stevenson (Marcellus, New York), "Over My Shoulder"—a lighting demonstration.

The 21st National Industrial Photographic Conference is scheduled especially for corporate and in-plant photographers, although all registrants are invited to attend sessions. America's foremost industrial photographer, Arthur D'Arazen heads the list of Conference speakers and presentations. Subjects include High-Speed Photography, Color Balancing, Studio Lighting, Audio-Visual Techniques, Sky Lighting,

Color Print Retouching, and Creativity for the Corporate Photographer. Speakers, in addition to D'Arazen, include Fitz Lee, Kraft Foods, Chicago; William Skumurski, General Electric Company, Utica, New York; Harland Nasvik, General Mills, Minneapolis; Vivian Geiger, Syracuse, New York; Werner Marx, Schenectady, New York; Robert Astra, North Randolph, Massachusetts; plus Tim Mateson, Roger Merritt, R. K. Peterson and Bill Yake.

Ghost Town Safari, an on-location seminar, is scheduled for Saturday, August 4, the day before the official opening. Buses will leave the convention hotels (Brown Palace and Denver Hilton) at about 5:15 a.m., so participants can catch the early morning light. Two locations near Denver will be used for the dawn-to-dusk photographic experience: rugged Silver Plume, an abandoned mining camp; and nearby Georgetown, a partially restored boom town. Models will be furnished. Some of the world's top pros make up the list of instructors for the portrait and commercial/illustrative sessions, under the direction of Kurt F. G. Jafay of Denver, and Raymond Conkling of Portland. Instructors will rotate periodically. Exposed film will be processed and back in time for instructors to put together an in-depth Ghost Town critique session on Wednesday (portrait in the morning, commercial/illustrative in the afternoon).

Special Convention sessions are planned by Evidence Photographers International Council, American Photographic Artists' Guild, and the Retouchers Committee of the PP of A Portrait Division. Invitational photography exhibits include 20 years of Playboy photography, the Kodak Youth Exhibit, 40 years of editorial photography by Lucien L. Aigner, Applied Photography exhibit, the Pan American Health Organization's best 25 years of photography, as well as the PP of A and Masters prints.

Activities for families during the 1973 Denver Convention include tours and field trips, a full youth fun program, and a barbecue and rodeo. The annual gala reception and Awards Banquet on Wednesday is professional photography's big social event.

The Technical Products Exhibit and
Continued on Page 732

It took an animation cameraman to design the best one.

The H & S Animation Camera Stand Model 1000. Price: \$11,750. To design our stand we went to the Hanna Barbera Studio to ask the animation cameramen to tell us what they disliked about existing camera stands.

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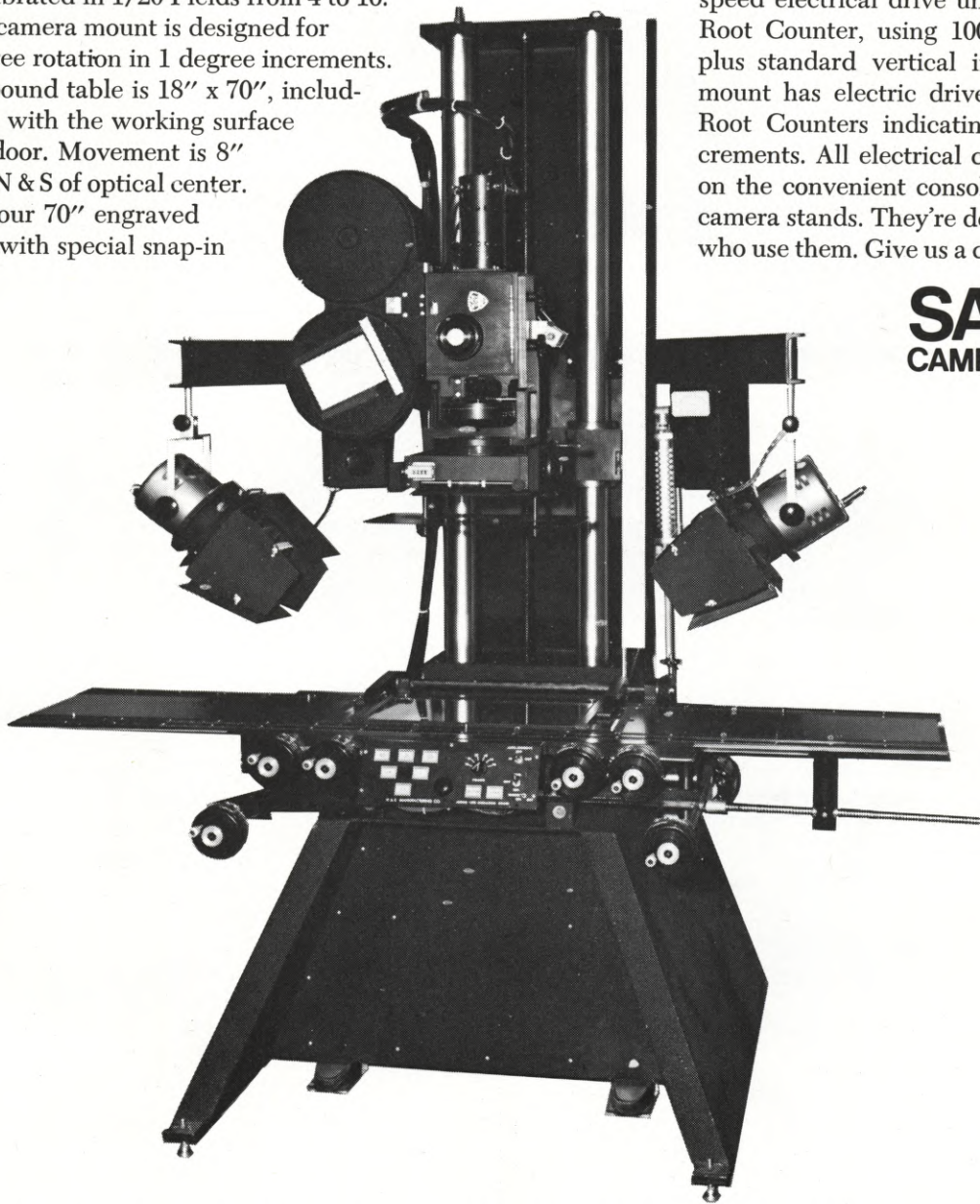
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FLORIDA FILM-MAKERS UTILIZE FILM TECHNIQUES IN SHOOTING VIDEOTAPE

Round-table discussion of a new and entirely original approach to shooting that incorporates the best of both possible worlds

The following article is based on a suggestion by Jeff Newby, Director/Cameraman for Allmand-Newby Productions in Miami. Newby and his company have for the past year been applying many of their film techniques in the production of videotape commercials and sponsored programs. In executing this transition Allmand-Newby Productions has been instrumental in introducing film techniques to videotape. At this point, when Newby shoots videotape, he is doing so with a full film crew: that is, cameraman, assistant cameraman, gaffers, grips, propmen, make-up, script clerks, sound recordists, and so on. The only non-filmmaker on the crew is the engineer whose job it is to keep the equipment running and assist the crew in working within the technical boundaries of videotape.

Jeff Newby suggested that since this merging of film and tape techniques is proving so successful in Florida, we bring together several people from both areas for a discussion. We recorded this discussion in Miami with the participants being:

JEFF NEWBY, President of Allmand-Newby Productions in Miami. Newby has been directing commercials and sponsored films for 10 years. His background includes five years as an advertising agency writer/producer in New York. His commercials have won virtually every creative award in the field

including the Clio, Addy and Art Directors' Club award. One of his commercials was recently named among Advertising Age Magazine's Top 100 Commercials of the Past 25 Years. This year a series of videotape commercials he directed was selected as the outstanding television campaign in the Southeastern Region of the United States.

HOWARD WINNER has spent 45 years in the film industry. His credits include Director of Photography for dozens of major theatrical productions. Included in his credits are Director of Photography for "GENTLE BEN" television series, "FLIPPER" television series, "ROUTE 66" television series and many years shooting for Universal Newsreel and Pathe News.

JIM PERGOLA has worked on many produced-in-Florida feature films, including "DILLINGER", "LIMBO", "KEY WEST", "THE MASTERS", "DARKER THAN AMBER", "WALK IN THE SPRING RAIN", "DARING GAME", "GENTLE GIANT", "LOST ISLAND", "FLIPPER", "THUNDERBALL", "DEADLY CHASE" and "BINDS DOLT". In addition, he has served as Director of Photography for several television series and virtually hundreds of television commercials.

RICK ANDERSON is one of the youngest cameramen in the country to hold a first-camera card and already he has

feature film Director of Photography credits. In addition to shooting over 100 television commercials he was recently the Director of Photography for "DURAND" produced by Patterson Productions. Last year he was Director of Photography for Jeff Newby's film "IT'S WORKING" which won medals at The Atlanta, San Francisco, New York and Chicago Film Festivals.

BILL BARBER has worked both as assistant editor and assistant cameraman in Florida. He has worked on several television series and specials including the recent Bill Cosby Special. In addition he has worked as assistant cameraman for many commercials, including productions for Ford, Volkswagen, and Florida Power and Light.

PRICE PETHEL is one of the pioneer videotape engineers in the country. He has established himself as an expert with the various portable cameras and tape recorders. Price works for Miami Tele-Productions in Miami. He has taken his portable videotape cameras literally around the world with productions in London, Mexico, the Mojave Desert and Underwater. Price has been instrumental in convincing many film producers, directors, and cameramen that they need fear nothing by working in videotape.

The following is a transcript of the discussion among the abovementioned people.

PERGOLA: I haven't had any experience with tape or shooting tape film style. What is different now? Is this a new technique using film equipment with tape?

NEWBY: From our point of view what it involves is this: We use the Norelco PCP-90 tape camera. It's the camera that you see on the sidelines in the football games most of the time and it normally comes with a lens that is controlled by a single cameraman through the use of cranks. The exposure is controlled back in the control truck by the shader. In other words, the cameraman doesn't have to worry about exposure control. Now, what we've been working with is this same basic camera, but without the automatically controlled lens. We use a "C" mount adapter which takes any 16-millimeter

Discussing videotape and film production are (clockwise, starting with the coffee pot): Bill Barber (in short sleeves), Jimmy Pergola (with moustache), Rick Anderson, Howard Winner (striped shirt), Price Pethel and Jeff Newby (sport coat).



"C" mount lens. Most of the time we're working with a 12-to-120-millimeter zoom, but we also have frequent use of the 5.7mm lens and various macro lenses. What we've done by converting to film lenses and taking the automatic function away from the camera system, is to give the cameraman his camera back. In other words, he can be an artist rather than a technician.

PERGOLA: Suppose you get an exposure change during a scene and you don't want to cut, does anybody else have control over the camera or do you have to change the lens?

NEWBY: You have the identical controls that you would have if you were shooting film.

PERGOLA: In other words, you've eliminated the man in the truck?

NEWBY: We've only eliminated his control of your exposure. Price may have some additional controls in the truck though, do you?

PETHEL: Not really. Actually with video we're dealing with two factors as far as exposure is concerned. There's gain, which is like the speed or ASA in film. The other factor is the iris, which is an optical control, just as in film. I can't change the gain or the equivalent ASA of the system while it's in operation with the film lenses.

PERGOLA: Then it's not an automatic system?

PETHEL: It's a manual system which requires technical considerations, as well as aesthetic and artistic consideration. By using the film lenses we are giving the cameraman his camera back. There are advantages to having a man in the control truck, since he can see a good monitor in a properly lighted environment. He is able to concentrate on the picture content and is not distracted by all the activity on the set or location. He has the opportunity to concentrate on the technical aspects of the picture while being available to offer creative suggestions. I realize that not many cameramen will feel comfortable taking suggestions from an unknown engineer, but once these two people are used to working with one another there is usually a creative give and take.

PERGOLA: But we do that in truth in the film medium. We turn our film over to the technical people in the laboratory. And sometimes they make creative decisions for us.

PETHEL: You do, but in videotape you're talking another language.

PERGOLA: You mean the difference between chemical and electronic?

PETHEL: Yes and no. You're dealing with not only different technical terms but with differing kinds of people. Unfortunately, to date there are not that many aesthetically oriented technical people.

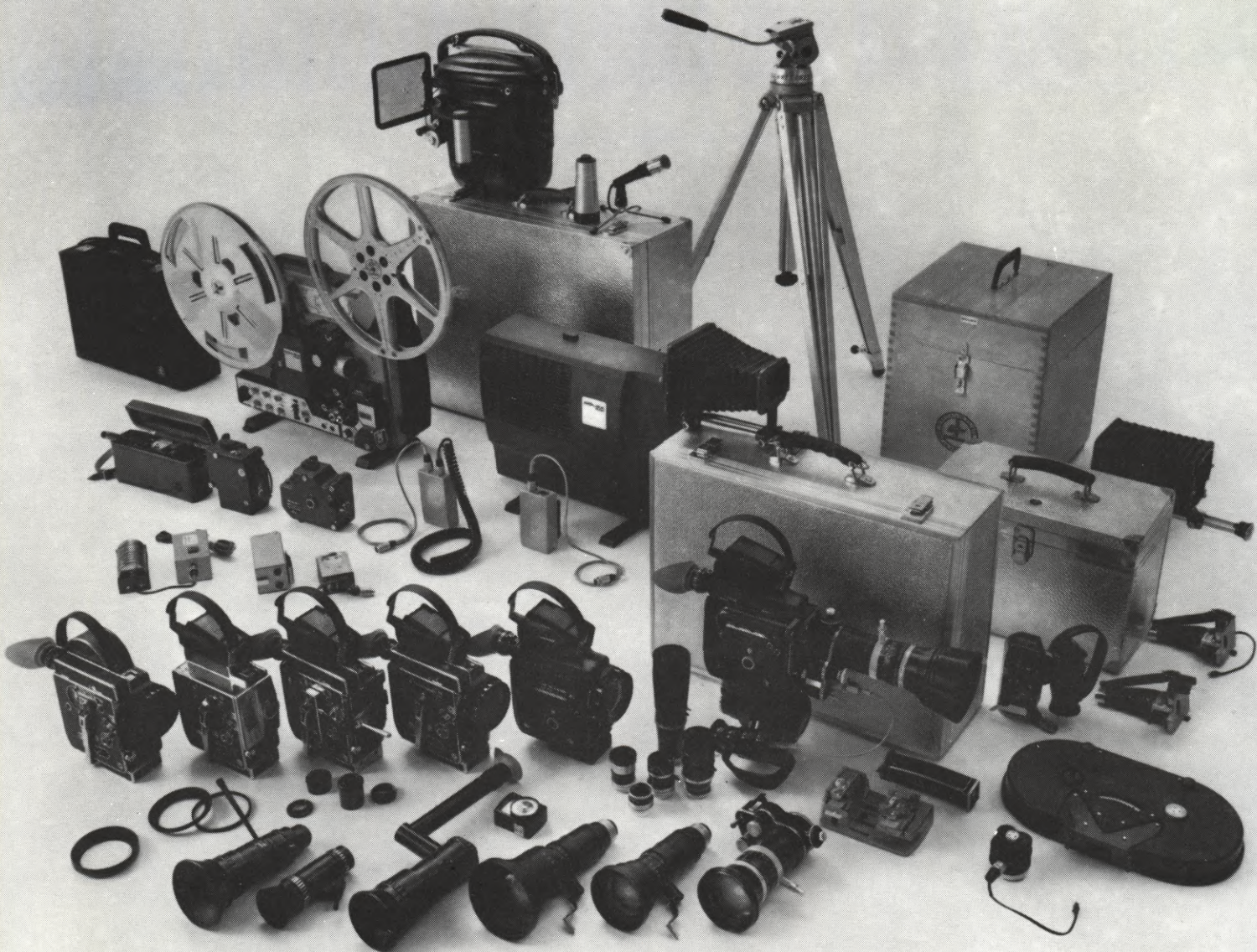
NEWBY: In equating the film laboratory with videotape, remember that in the lab you don't normally know what needs correction until after you've seen a one-light workprint, while in tape you can make the corrections right on the spot and approve them instantaneously. I'll give you an idea how we physically set up when shooting videotape. Normally we shoot on location; therefore, the camera is at least a moderate distance from the small control truck. When we have determined our camera position we put a color monitor as near to the camera as possible. This monitor gives us the same picture which the tape recorder is receiving. It can also give us a playback picture. Now, on the camera you have a viewfinder which is electronic and it's black and white and not very accurate, since there's a lot of glass with the zoom lens and the "C" mount adaptor on the camera. It's good enough

to focus and compose on, but it is not clear enough to read critical exposure and contrast. The cameraman has the ability to light and check his picture on the monitor near the camera. He also may ask the engineer in the truck to evaluate the picture. In the truck your engineer has various monitors including black and white. Since the engineer, the cameraman and, in effect, the entire crew has immediate access to a monitor there becomes a common point of reference and, therefore, a very open form of communication. In reality, it takes a little more time each time we do a new setup in videotape, but our actual shooting time is considerably less than in film, because we know what we've got when we shoot it. When we shoot a commercial on film we might have an hour of rushes but with tape it is usually more like 30 minutes since we don't waste time shooting protection takes. When we know we've got what we need, we stop shooting.

PETHEL: Jeff mentioned how the engineer oversees the final product and how he tells the cameraman which rules he can and cannot violate. It'd be my dream to say there aren't any rules. Forget the rules. If you have a rule in film the same rule applies to videotape. There obviously are certain limitations based on the state-of-the-art situation. Continued on Page 787

Actor Bill Joyce prepares for a take, as the portable videotape camera focuses in on him. Notice the bit of stocking used over the 10-to-1 zoom lens. This decreased contrast during the critical food product shooting. Cameraman Rick Anderson frequently photographs through various stockings when shooting videotape.





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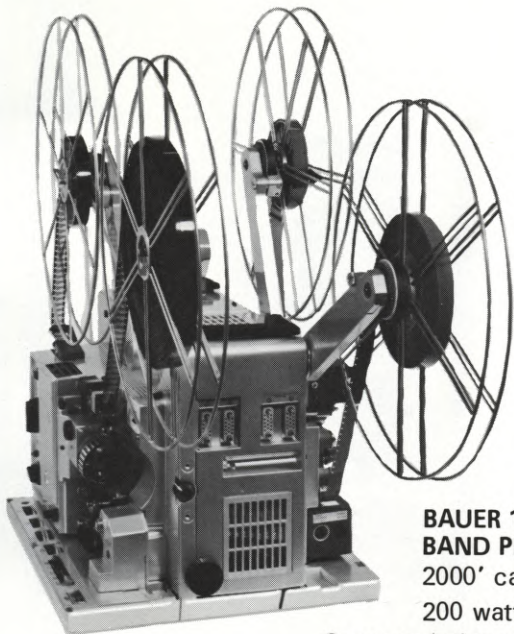
For instance: if you choose a spring-wound camera, you can automate easily with any one of three auxiliary motor drives, for time-lapse or animation, for variable speed shooting or for filming with sync pulse generator or crystal. The system offers you tripod; monopod; camera grips; blimps; an automatic fading device; cable releases; matte boxes (complete with masks); an underwater housing; attachable exposure meter; 400' magazine; closeup lenses; extension tubes; optical magnetic sound projector.

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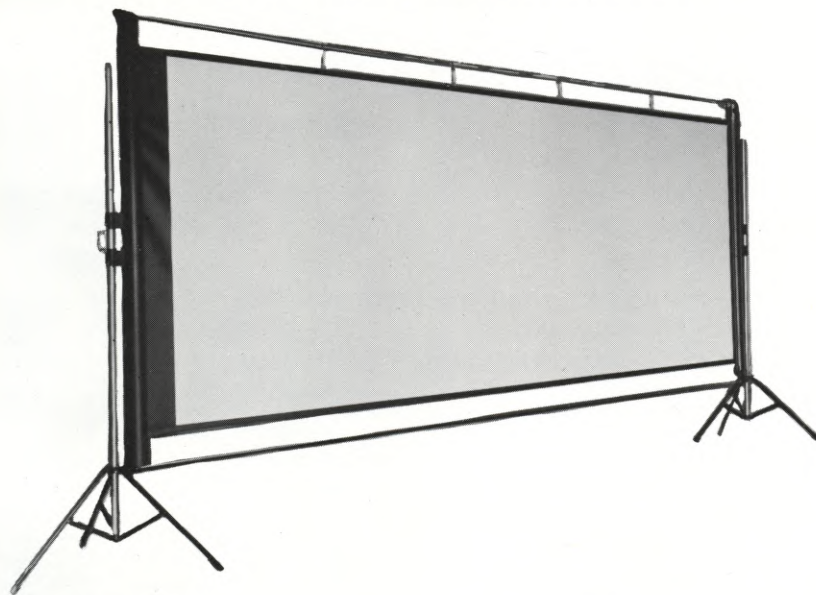
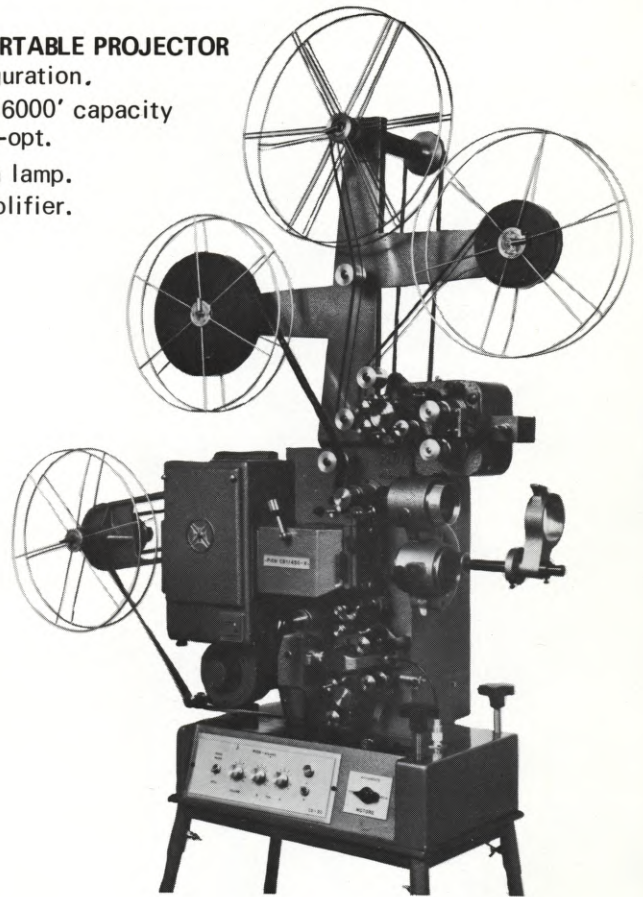
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By JACK COSGROVE, *President,*
SEARCH Productions, Inc., Tampa, Florida

There are not too many events good enough to qualify as the subject for three different films, but we found one: The search for, and salvage of, a Spanish treasure galleon.

Our first documentary on the subject was started in 1968. Sponsored by the Joseph Schlitz Brewing Co. and Johnson Outboards, we produced "TREASURE SALVORS OF THE FLORIDA KEYS", a 30-minute film for their public relation libraries. The galleon was the *San Jose*, one of a fleet of nineteen ships sunk in a hurricane on the night of July 15, 1733. The salvors were Capt. Tom Gurr of Marine Tech Salvage and Mel Fisher, President of Treasure Salvors, Inc. A story on the adventure made the September 1969 issue of *American Cinematographer*. Shortly after, we were contracted by Johnsons Outboards to produce a 5 minute film on the subject. The result was "CAPT. TOM GURR/MODERN TREASURE DIVER".

The two films have received a total of seven honors: Best of show and best Documentary at the 12th International Underwater Film Festival, Santa Monica, California; First Place, National Capital Underwater Film Festival, Washington, D.C.; best Water Sports Film of 1968, National Outdoor and Travel Film Festival in Michigan; Fourth Place Argus Poseidon Underwater Film Festival in Trebic, Czechoslovakia and, last but not least, a CINE Golden Eagle award from the Council for International Non-theatrical Events, Washington, D.C. CINE later entered the film in the 8th International review of Maritime Films in Milan, Italy, where it received a Certificate of showing.

These awards and the tremendous interest shown by viewers of the films, prompted us to turn the subject into a full-length feature film. Knowing that many films produced each year fail to get distributed, I felt the need to find a reliable film distribution company interested in the idea. A chance meeting at a local film laboratory provided me the opportunity. I approached Mr. Gidney Tally, President of the Magus Film Group, a successful distributor of theatrical films. Tally was not too interested

at first, but after talking him into viewing the two earlier productions, he provided us with a firm distribution contract.

Armed with positive knowledge that this production would get distributed, we had the confidence to proceed. Now we needed a contract with the Salvors. My partner, Rand-Scott-Coggan, and I met with John Bamberg, President of Tom Gurr's new company, Undersea Mining Corporation and Tom, Vice President and salvage master. In a very short time we had the needed contract. The next step was a complete film treatment and shooting script.

Treasure hunting, the history of the galleons and the salvage crew were all familiar to me from the previous films, and a continuing association with Capt. Gurr over the past years had made me very familiar with the subject. Coggan decided I was probably the most qualified person to rough out the story. He and I spent four weeks on the treatment and another six on the shooting script.

Now, armed with a distribution contract, a contract with the salvors, a treatment and a shooting script we started to look for the financing. This was harder than it looked, but, after several weeks of search, Coggan contacted a group of investors in Sarasota, Florida, Melee Film Productions, Inc. who agreed with us that the subject was a good one. They gave us the go ahead and the financing to start production.

We had hoped to start in the middle of August when the Keys weather is at its best but the necessary delays had brought us into November. Capt. Gurr had originally planned to abandon the site of the *San Jose* on December 15th, so we left immediately for the Keys.

The crew consisted of my partner Coggan as Director; myself as Director of Photography; Harry Leith a Film Major at the University of South Florida in Tampa who did just about everything; Greg Burkett, our Soundman and my son, Carl Cosgrove, a young but very capable still photographer and Assistant Cameraman. We all left Tampa on Thanksgiving day, after dinner, of course. The crew travelled to the Keys, loaded down with props, SCUBA gear

and all the production equipment in our International Harvester Travelall and Scout. The two vehicles were provided by International Harvester in Tampa as props in the film.

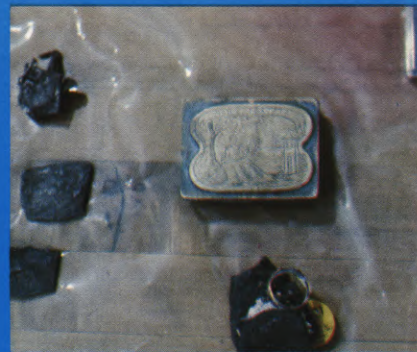
We arrived in the Keys in the wee hours, but early that morning Coggan and I met with Tom Gurr and his crew of treasure divers to plan and coordinate our activities. Having filmed with Gurr in the past we knew his people and the subject well, but his salvage operation and some of our filming techniques had changed. We had to learn about his new boat and new equipment. Tom was now using SCUBA gear exclusively, as opposed to the old Desco rigs which required the divers all to be supplied by air from a compressor on the deck of the boat. This necessitated long air hoses, line tenders on deck and heavily weighted divers. We were aware of this fact and had contacted Bill Holcomb of the Dacor Corporation, who agreed to supply us with complete SCUBA outfits for the salvage and underwater film crew. Dacor, too, felt the subject was a good one which would give their product excellent exposure in the film.

The next day the two crews met. We know film-makers are a unique lot, but so are treasure hunters. The two crews combined, each trying to accomplish their individual tasks and working together to produce a 90-minute theatrical/documentary, was something to experience. Gurr's crew consisted of himself as Captain and Salvage Master; John Noland, First Mate, an old hand who had been with Tom when we produced our first film; Paul Carleton, an Ex-Navy Commander; Herman "Indian" Clausen; George Hansas and Tom's two sons, Keith and Chris.

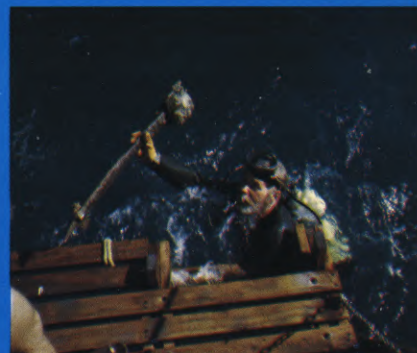
Our first priority was to get all the underwater scenes finished before the Winter weather hit. The plan was to film underwater unless the water was not clear, in which case we would film boat activity on deck. In the event it was windy or otherwise negative, we had our back-up scenes scheduled on shore.

Starting a water-oriented film in the Keys in November is not the best idea. This year it was near disaster, with

Continued on Page 782



(LEFT) The salvage vessel, "El Capitan", on the way to the treasure site. (CENTER) The crew filming and recording a find of gold coins. (RIGHT) A few of the coins, medallions and artifacts found on the sea bottom. In the center, an engraved snuff box, still containing snuff after 240 years underwater.



(LEFT) Diver Paul Carleton, shown with an ancient coral-encrusted pistol. (CENTER) Soundman Greg Burkett, preparing to record a splash with Nagra III recorder and Sennheiser MKH 804 microphone in windscreen. (RIGHT) Diver Carleton, with Spanish sword found in the wreck.



(LEFT) Divers approach the galleon, which hoards of fish make their home. (CENTER) Jack Cosgrove moves in to film underwater activity. (RIGHT) Cosgrove on the site with Arriflex-S camera in Mako housing.



(LEFT) Cosgrove films Noland and Patterson in Johnson "Stinger". (CENTER) Lights are set up for filming of a party sequence at the Tiki Bar. (RIGHT) Lining up camera to film beginning of a chase sequence in the "Stamas".

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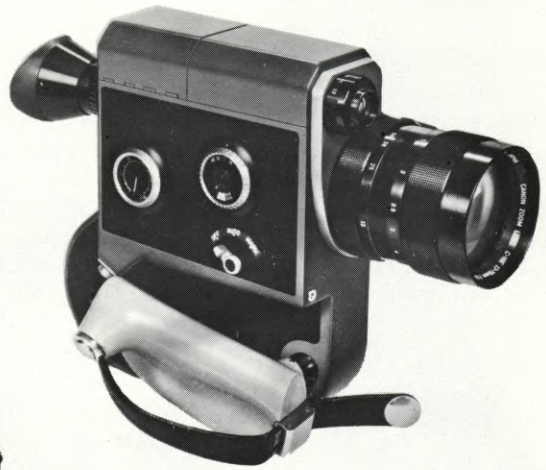
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UNDERWATER SPECIALIST

More at home beneath the sea than on dry land, this imaginative technician creates and moves in his own wondrous underwater world

By SAM SMITH

Mako Products, North Miami Beach, Florida

When you walk into Jordan Klein's office and ask him if there is anything interesting happening, be ready; there usually is.

He might be deep in thought considering three or four different ways to film a shot other cameramen have said is impossible. Or he might be designing a spectacular underwater prop to jazz up

a not-so-spectacular script.

Recently, I came to work determined not to be distracted by one of Jordan's projects. When I stuck my head in for a quick hello, I could tell by the faraway look in his eyes that he was engrossed in something new. I decided my invoices could wait and sat down in anticipation. When the faraway look began to twinkle, I knew he had solved his problem and liked the solution.

"Alan McCabe was just here and wants to know how to photograph from a dolphin's point of view" he began. Alan McCabe is from Icarus Productions, which is currently filming "THE DAY OF THE DOLPHIN" directed by Mike Nichols and starring George C. Scott.

After a pause, I said, "Alright, tell me. How do you photograph from a dolphin's point of view?"

"I have to admit the answer to that did not come to me instantly," he says, "but I figured it out while we were discussing other underwater photographic problems. The solution, in this instance, will be to attach a camera to the front of a propulsion device that the cameraman will lie prone on and 'fly' through the water with the same motion that a porpoise makes at speed."

Ultimately, Jordan assembled this

item and recorded the sequences for the film.

In addition to this, Jordan provided an underwater chamber open to the atmosphere capable of holding the cameraman and assistant along with a Panavision camera with zoom lens. This unit allowed the camera crew to remain submerged for extended periods, remaining dry and warm while viewing through any of the three ports. The porting system was designed so that the camera could be placed in any of the three ports. This unit is constructed of steel, is four feet square and sixteen feet tall. It features its own ballast tank so that split-image photography can be accomplished at the surface. The ballast system allows the entire unit to raise or lower one foot at the command of the operator. The unit was also constructed so that it could be towed to any location in a water-tight configuration while lying on its side. In this way, it could be towed across extremely shallow water, since the total draft is only a few inches. Once the unit was on location, it was flooded at the bottom and went from a horizontal into a vertical position. The unit is extremely stable and provides a very firm underwater platform for a large camera package.



Jordan Klein, shown with the underwater housing he manufactures for Arriflex 16mm and 35mm cameras.



The wonderful world of Jordan Klein—an undersea "toyland" of "James Bond" gadgetry, exotic vehicles, bikinied beauties and weird sea creatures—a blue universe, where movie-making takes on its own special "out-of-this-world" character.





(LEFT) Looking like a king-size toy, this diminutive two-man dry-type submarine is a very efficient undersea vehicle. (RIGHT) Every kid's dream: Jordan Klein with his fleet of two-man, dry-type submarines. (BELOW RIGHT) The James Bond backpack from "THUNDERBALL", designed and built by Jordan Klein.

Often Jordan is consulted about ideas which are in the thinking stage and never make it to the script. If a writer or director decides for the story to go in another direction and fails to use an idea or two, Jordan simply stores it away in the back of his mind for some future use.

For instance, Alan McCabe also wanted to know if it would be possible to photograph a dolphin swimming at speed. After thinking this out, Jordan said he could construct a dumbbell camera system to be carried in the dolphin's mouth and be activated by the dolphin. In one of the plexiglass spheres, an Eymo would be located with a very compact electric drive and, in the other sphere, he would mount a nickel-cadmium battery pack. A pressure switch in the center, on the point that would be in the dolphin's mouth would activate the camera. Thus, the camera could be placed on the bottom or given to the dolphin. Upon his grasping the center portion of the dumbbell in his

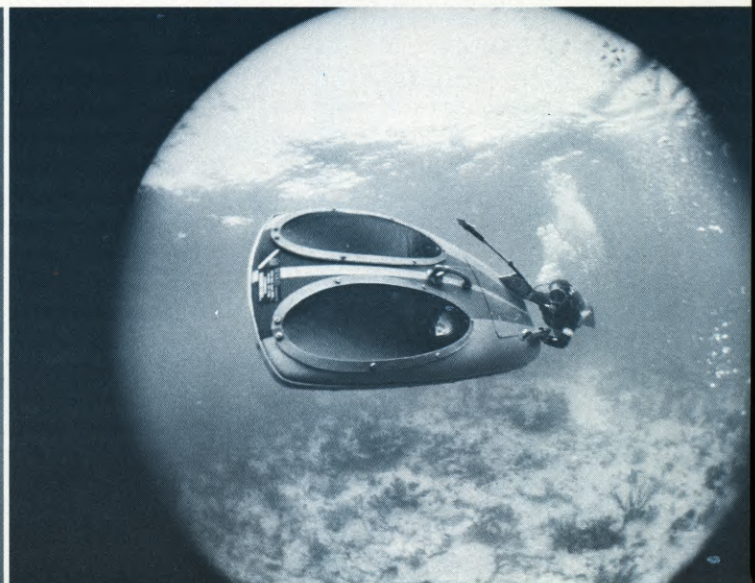
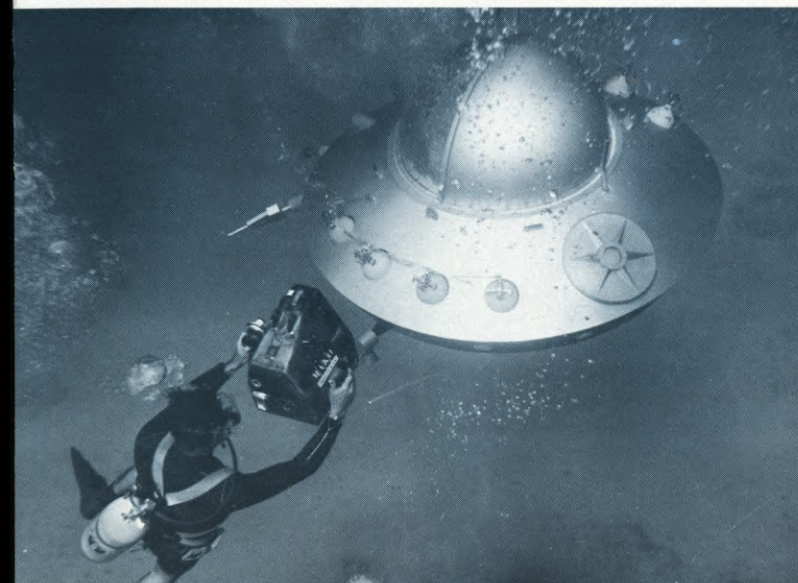
mouth, he would activate the camera and swim with the entire unit, photographing himself while swimming. By rotating the mouthpiece portion, it would be possible to photograph in any direction.

After listening to Jordan's monologue about "THE DAY OF THE DOLPHIN", I went to my office to get some work done. Among other things, I checked over a rental agreement while Jordan checked out the camera gear for a customer. We carry 16mm and 35mm Arriflex Cameras with custom-made underwater housings (housings made by Jordan Klein, of course) and accessories.

Then a call came in from an agency which wanted to shoot a beer commercial in the Bahamas. Aside from Jordan's services as cameraman and the camera equipment, they also wanted to charter our twin-engine plane to check out a couple of locations Jordan had recommended to them earlier. I couldn't find Jordan anywhere in our warehouse.
Continued on Page 757



(LEFT) Jordan Klein moves in with camera, as "Underwater Director of Photography" on "AQUARIANS" feature film. (RIGHT) Electric drive tow-scooter, another of the exotic "THUNDERBALL" props. Klein's fertile imagination spawns futuristic undersea vehicles to order.



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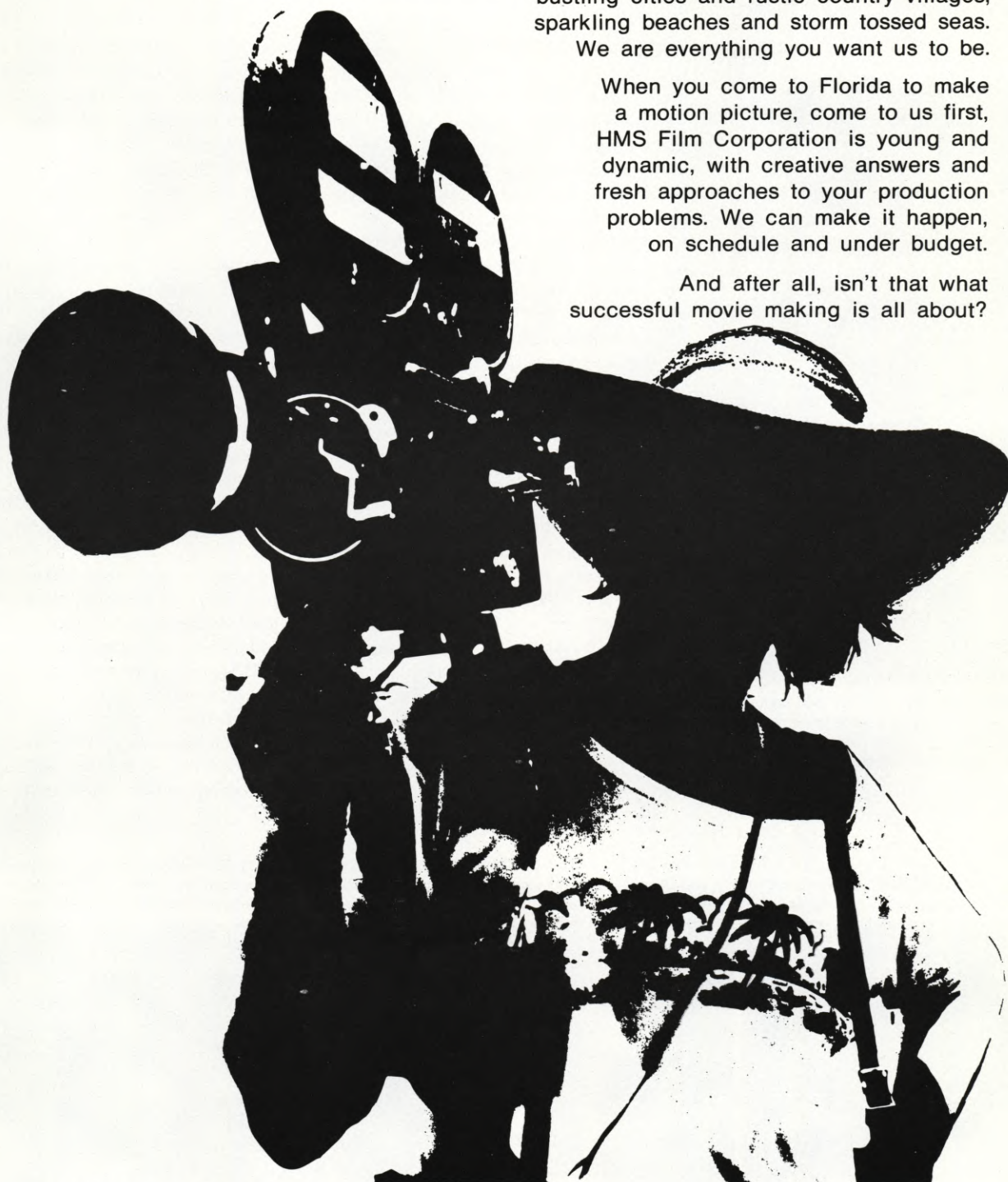
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FILMING THE WAYS THAT SKYLAB ASTRONAUTS TRAIN UNDERWATER

In an atmosphere that most closely simulates the weightless conditions of outer space, underwater cameraman films Skylab astronauts in training

By FLIP SCHULKE

Flip Schulke Underwater Films, Miami, Florida



Flip Schulke with Beaulieu R16B camera, which he calls "my own personal camera" and favors because of its light weight, 200-foot daylight loading and self-contained battery power supply.

Often, when astronauts are seen in film and TV, weightless—floating inside their space-ship, or outside, during an "extra-vehicular activity—EVA" in space jargon—"space walk" to most of us, one wonders how the astronaut can fulfill his work tasks in such a strange and alien lack of atmosphere and gravity. How do they "learn" to work while weightless? What conditions on earth can simulate the weightless conditions of outer space for the astronaut?

Underwater—that's how!!

That's also how a Miami-based underwater photography specialist gets called on to shoot a color film for NASA on astronauts practicing space walks—underwater.

It all began a couple of years earlier, in 1970, when I led a mission of five men, studying the underwater effects on film and optics, as part of 11 varied scientific missions, living on the ocean floor, called Project Tektite. NASA helped to fund the Department of the Interior's Virgin Island underwater laboratory or "habitat" studies, so that NASA could monitor the behavior of people under real work and stress conditions in a confined and isolated situation. Their psychologists wanted to learn how men and women react in this

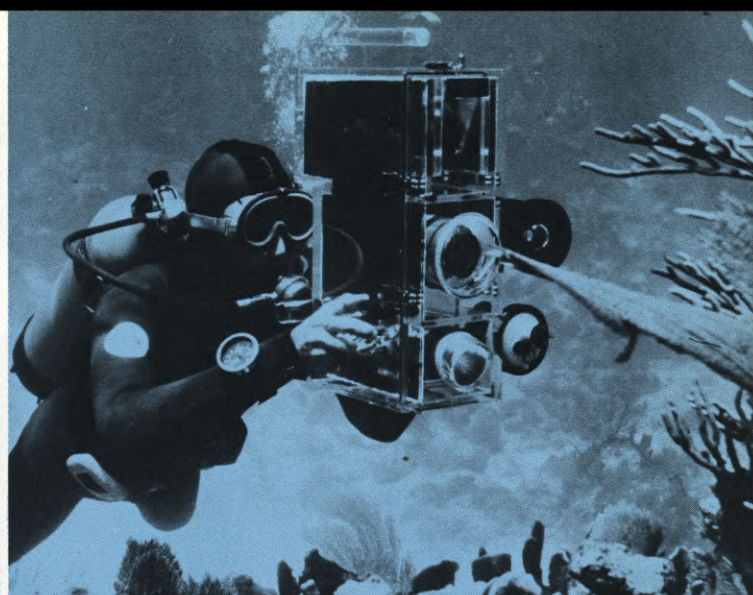
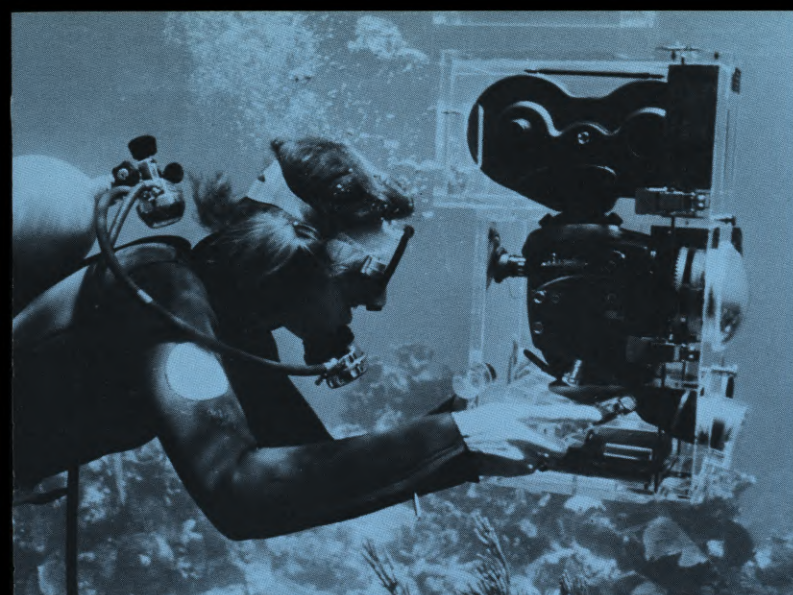
kind of environment—confined in a limited space for days and weeks at a time. The answers told NASA much about how to select crews for longer missions and extended voyages into space, including SKYLAB, the earth-orbiting 3-man laboratory, launched in May of this year.

The film division of NASA's public information office saw the one-hour TV color documentary that we made on Project Tektite—man living under the sea. They liked the color quality that we obtained in that film, and commissioned my company to come to Huntsville, Alabama, to make a color documentary film on their underwater test tank, or Neutral Buoyancy Simulator, located at the Marshall Space Flight Center.

NASA wanted the film for television use before the launching of the SKYLAB orbital laboratory, and visual aids in explaining activities of the astronauts while they are in orbit, since much of their "space-walking" cannot be televised from all areas outside of the SKYLAB. They wanted voice-sync film footage covering the Control-Center and the astronauts practicing underwater, shot simultaneously. They also wanted good underwater lighting, so that all the subjects would not have that common

(LEFT) Charles "Pete" Conrad, one of the selected Skylab astronauts, shown during a Neutral Buoyancy Simulation Test at the Marshall Space Flight Center. (CENTER) Conrad practices working with tools in simulated "weightless" condition provided by water, which is very close to situation he will encounter in outer space. (RIGHT) He moves about in the compartment of the submerged Skylab replica used for training purposes.





(LEFT) Flip Schulke's wife, Pauline, whom he calls "an English import", holds Beaulieu camera encased in underwater plexiglass housing which he designed and built for it. Pauline dives with Flip, swims patiently with the underwater housing when he isn't using it and helps with the underwater lighting. (RIGHT) Flip moves through the water seeking subjects for his camera. His underwater slating system involves large house numbers bought at the local hardware store.

"overall blue" effect of so many underwater sequences.

Time available for our underwater and surface photography would be at a minimum, since at no time could the actual training exercises be interrupted in any way. We would have three days of shooting—one to practice on engineers going through the underwater practice, and two days of shooting the astronauts themselves, in training. They would be underwater for about three hours each day. Pre-planning for continuity in filming could be, at best, minimal, since the NASA-planned exercises of the astronauts undergoing weightless training is often changed right in mid-exercise—if either the astronauts or Test Conductor so desire. We would have to observe, react, and get on film, *what* happened, *when* it happened—without getting ourselves in the way of the astronauts, safety divers, and closed-circuit TV utilized by the Control-Center. It would be true underwater documentary photography, with no margin for technical error. Nothing could be re-shot.

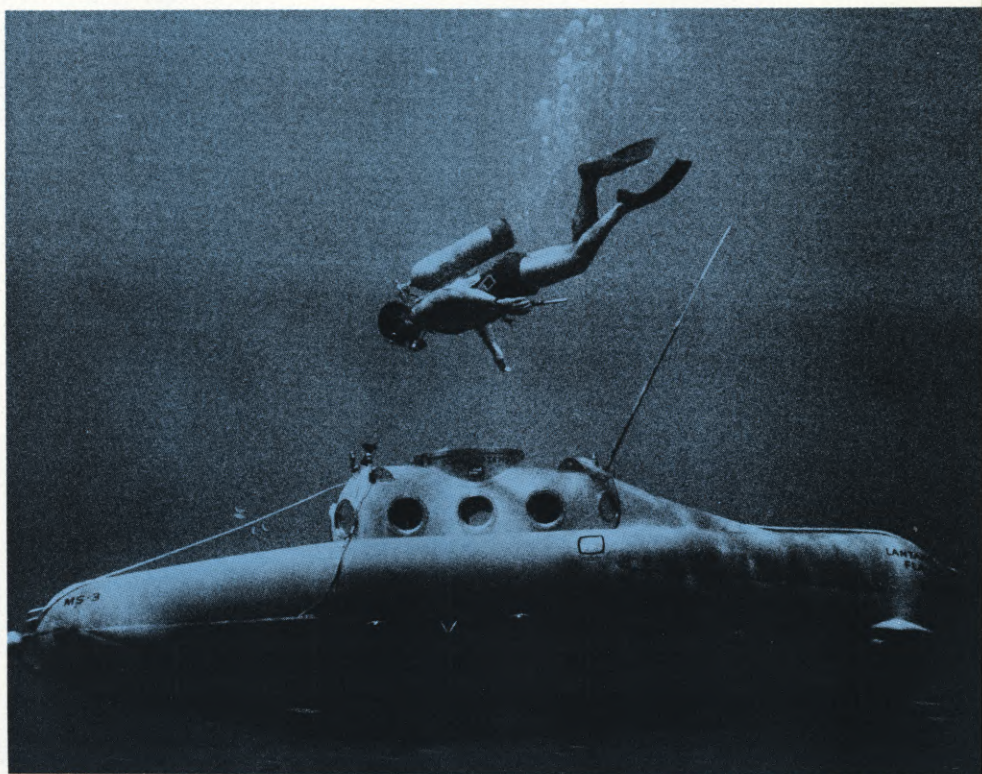
At this point, I should like to stress a few points about underwater photography in general. For the most part, in shooting underwater, all filming is "hand-held". Because of the resistance of the water, and the relative size of the underwater camera housings, camera shake is almost non-existent. Since the diver-cinematographer can move in all directions, including up and down, he is a 3-dimensional dolly, all by himself. He can swim in or out, thereby negating the need for a zoom lens. What is *primarily* necessary for the diver-cinematographer is that he feel completely relaxed and at home while underwater. If you are only slightly claustrophobic—forget under-

water photography. The diver-cinematographer's diving abilities should be of such quality that almost his full consciousness can be directed toward *photography*. No matter how talented a cameraman may be above water, it will all be useless unless he is an accomplished and relaxed diver. On the other hand, being a really great diver matters little, unless he has the training and experience as a photographer-cameraman, so that he can apply *all* of his photographic and lighting knowledge to

his underwater work. The day of "danger" being filmed, to the exclusion of all else, is rapidly passing away. Death, sharks and forced-drama heralded the infancy of underwater photography, the "frosting" on top of the cake. I feel that we are now in the "growing up" stage, with a whole range of interesting underwater subjects to film. As with all of the photographic arts, this creates a need for the *professional*, in the fullest meaning of the word. The professional has

Continued on Page 758

Photograph by Flip Schulke of his assistant, Paul Dammann, diving on a miniature submarine. One of Dammann's main duties during a shoot is to arrange the underwater lighting, which is always set up at a 45-degree angle, since Schulke dislikes flat light resulting from mounting lights on the camera housing.



THE "ONE-MAN-BAND" AND HOW HE DOES IT

By doing it all himself, he becomes completely involved and comes very close to achieving the film-maker's dream of total artistic expression

Story and photos by STEVE LEE

He's known as the "One-Man-Band". It's a title that earns him on-screen credits as director-cameraman and off-screen credits as gaffer, grip, casting director, lighting man, soundman, film editor and child psychologist. He's Ron Floethe, 24-year-old President of Gordon-Kerckhoff Productions, Inc. of New York, a production house for children's films, with a branch office in Sarasota, Florida.

Floethe set up his film company in 1970 shortly after graduating from college. Six of his films are already in distribution through ACI Films, Inc. of New York. Three are language arts films, the others are part of a series on pollution. All are aimed at the grade school student.

As a one-man-band, Floethe comes close to achieving the cinematographer's dream of total artistic expression. As he put it: "The film director is responsible for every phase of the final product. That's why I prefer being totally involved all the way down the line. Then, if something goes wrong, I only have myself to blame."

Floethe's shouldering of responsibility has a deeper motive. "If you're a perfectionist," he explains, "you can push yourself to the limit. It's always harder to push other people, to get them to work as though the production is theirs."

Floethe films with conventional

equipment. His tools consist of an Auricon conversion, an Auricon Pro-600, a Bolex H-16 EBM Electric, a Nagra 4.2 tape recorder, Miller and NCE tripods, Colortran lights, Lowell Vari-flectors and assorted other gear. His film for almost all occasions is ECO 7252.

When you're a one-man-band you think about portability and ease of operation. On location, Floethe says, he has found the new Nagra 4.2 indispensable. He feels the unit, with its automatic gain control, can anticipate sudden audio peaks better than a \$10-an-hour sound technician. He uses the recorder heavily in his work and finds it more economical to run it off his Frezzolini power packs. He claims it beats throwing out a set of Nagra batteries every two or three days.

For in-field use, Floethe favors the lightness of his Auricon conversion and Miller Tripod. "I had been using the NCE Tripods because I liked the fluid heads," he says, "but, the Miller heads work just as well." Both the heavier NCE Tripods and the more cumbersome Pro-600 he had been using in the field have now been set aside for studio use.

Floethe's lighting gear consists of all Colortran equipment ranging from 650 multibeam to 1000 multibeam units. He has augmented the Colortrans with Lowell stands because he feels they are stronger and not apt to topple over, a special worry around children.

Outdoors, Floethe always carries a light pack and light head although he has a full complement of Lowell Vari-flectors. "The reflectors," he says, "don't work well with children. They start to squint and become irritated by the great intensity of light. It destroys the feeling and they are not themselves." In order to get the fill light he needs he slaps a dichromatic filter on the head of the light.

Ron Floethe defines his style as "an attempt to capture natural action on film." But when working with children this is far from easy. "I don't tell them exactly what I want," he says, "but only approximately. Then I let them carry the ball. I've found that if you let kids do it their own way it's natural. If you start telling them too much they get tense."

Floethe feels that it's important to make children a part of the overall filming situation. "I like to have them help me with the technical work," he says, "I've found there are certain kids who love to set up or move equipment. I let them do the safe tasks like taking down a light stand after the light has been removed or carrying out a tripod or stringing cable."

One of the biggest problems that Floethe has to contend with in working with children is fatigue. It's a factor that demands that you get the scene right the first time you shoot it. "Because

(LEFT) A posed shot of 24-year old Florida film-maker Ron Floethe surrounded by all of his equipment, to illustrate "one-man-band" idea. (RIGHT) Floethe uses Sarasota City Commission Chambers to shoot scenes for "Lets Help Recycle", a nine-minute film that is part of a series on pollution. Friends, family members and city hall personnel were recruited to portray city officials in a mock meeting.





(LEFT) Floethe's editing room has two editing banks and boasts Stanco Cine electric hot splicers, Moviscop viewer-sound readers, Hollywood rewinds and other familiar gear. (RIGHT) With his back to the cake mix, Floethe shoots scene for "Lets Help Recycle". Lighting was a particular problem. Cable, stands and lights had to be rigged out of the way of shoppers.

children tire so easily," explains Floethe, "I find it helps to change camera angles often, to shoot different scenes and change the action to keep that important feeling of spontaneity." He favors half-day sessions, shooting in the morning so that each day the children come with energy and enthusiasm. "Keeping enthusiasm alive in a child is a delicate job," says Floethe. "Once it's lost the child is useless to the film."

It takes Floethe three to four months to get a film from script to answer print. When an idea for a film has been decided upon, he draws up a list of scenes. Generally, he tries to stay away from pre-designing his film to the last detail. "I don't know exactly how I'm going to shoot a scene until I get the camera set up," he admits. "First I get the angle, then I start worrying about the action in front of the camera." He shoots a scene until he gets what he wants. Normally his ratio is no less than 4-to-1 although it occasionally goes as high as 10-to-1.

With the filming out of the way, Floethe spends about a month editing
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Scripted material is recorded back at Floethe's studio and later dubbed over the required scenes. He avoids using "canned" sound effects, preferring to carry his Nagra on location to record natural sounds. He also favors original music recorded by local instrumentalists over library music.

(LEFT) On deck with his Auricon conversion and high-hat, Floethe films a scene for "Who Wants America Ugly?", a ten-minute film on visual pollution. (RIGHT) Crouched in a shop doorway, Floethe checks sound track. The children he uses in his films usually ad lib their lines. He must contend with fatigue in filming children, because they tire so easily.



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FLORIDA FILMING SCENE

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35mm. In addition to the usual processing services, both offer such ancillary services as editing, conforming (A & B rolls), sound transfer and mixing, artwork, titles and animation.

A post-production complex owned by Steve Cuiffo and known collectively as Film Editing Center houses a myriad of services necessary for the completion of motion pictures. There are fully-equipped cutting rooms for rental, sound recording and mixing studios, artwork and animation set-ups—the full range of post-production facilities. In addition, Cuiffo keeps a roster of editors and other post-production technicians who are available to work on a free-lance basis.

Most of the rental houses in the Miami area carry some lighting equipment in inventory, but it is mostly the smaller stuff, Colortran and Lowel-Light quartz kits and such. However, the Harrison Camera and Lighting Corp. specializes in lighting and carries the bigger units. I pay a visit to their headquarters and am disappointed not to be able to meet Henry Harrison, the president of the company. Since he is a working cameraman and gaffer, he is, at that moment, busy on a job, but his gracious wife shows us through the place. I don't see any Brutes (and I'm not sure there are any in this area), but there is everything else, from 10K's down to quartz lights, plus thick cabling and heavy-duty boxes. There is also an array of dollies and grip equipment.

Harriet tells me that we have been invited to visit the location where they are filming a Mickey Rooney feature called "THE GODMOTHERS". The company is shooting in what appears to be an abandoned beach cottage in Coral Gables and when we arrive, there is much high-camp comedy transpiring under the direction of William Grefé, a local producer/director with a track record of many successful low-budget features.

I have to do a double-take in order to

recognize Mickey Rooney. Wearing a 30's tux and with what's left of his hair dyed jet black and plastered to his skull, he is playing the role of a Mafia don. However, even when togged out in this "Godfather" drag, The Mick looks about as Sicilian as a bowl of Mulligan Stew. Voluble as ever (though a bit tamed down from the ebullient Mickey we have all known and loved), he tells me about the picture, and our conversation runs something like this:

QUESTION: How do you happen to be making pictures in Florida?

ROONEY: The fact is that this is my home. I knew that there were a lot of local people who were very film-minded, so, with that thought in mind, we pursued the idea of trying to establish a company to make motion pictures down here—a company that would become a leader in the field and operate with a different kind of motivating factor. In order to create this kind of company, we didn't feel it necessary to have all of the things that usually go with motion picture production. We don't want a studio. We don't feel as though we want to burden ourselves with offices. You can't show those things on the screen and I think that they just become cumbersome. That's why the big studios have found themselves in trouble. Production has slowed down to such an extent that their stages have become costly. They're really just tax write-offs—and the people aren't entertained by a tax write-off.

QUESTION: Is there any special kind of features that you intend to make?

ROONEY: The fact is that we are going to make clean motion pictures. We have an abundance of screenplays in script form and we are going to do them for intelligent budgets.

QUESTION: As far as facilities and technicians are concerned, do you find that you have everything you need here?

ROONEY: To be laconic, I'll answer with an affirmative "yes". We do have everything we need. We have all the technical ability that we could want. Many of the companies from other places who come here to shoot hire the local technicians. They are all very, very strict pros.

QUESTION: Do you think this area shows signs of becoming a feature production center?

ROONEY: Of course it will. The play is the thing. You can make as many good pictures as you have good screenplays. You have to do meaningful pictures, and you can do those anywhere. You can make them in your backyard, as long as they fit your backyard and are entertaining pictures.

QUESTION: Aside from the fact that you prefer to work here because you live here now, what are the characteristics of the locality that you feel are especially favorable to feature production here?

ROONEY: Well, it comes right back to Old Sol—the sunshine—and the fact that there isn't any smog here. The air is clear. Naturally, everything is flat in Florida, but we aren't going to do Westerns here. There is an abundance of stories we can do in this area. The people have a refreshed, revitalized concept of making pictures here, and I think that their enthusiastic approach is what is going to build the local industry.

QUESTION: Is there anything you feel this area lacks in order to become a viable feature production center?

ROONEY: It needs a solid financing base. It needs people who have more than just good intentions. It's taken me two years just to get this picture off the ground down here. But now we have our slate set up to do at least four pictures a year here, and they won't necessarily be Mickey Rooney pictures. Then, later, our company might go public.

QUESTION: Since the economics of the industry are so vitally important just now, would you care to comment on the range of budgets that you intend to work within?

ROONEY: I don't believe that an average intelligent budget should ever exceed \$350,000. A "big" budget should never exceed \$500,000. But the mere fact that you are making a picture here

David Haylock, President of Image Devices Incorporated, Miami, and also a busy working cameraman in his own right, sets up to shoot a sports sequence for foreign television. Although his company rents and sells film equipment, he is also gearing up to service units shooting videotape.





(LEFT) On the beach in front of one of Miami's posh hotels, Director Elaine May rehearses a scene from her recent feature production, "THE HEARTBREAK KID". (RIGHT) Film production is a family affair for Tony, Mike, Marie and Hack Swain, of Hack Swain Productions, Inc., Sarasota, Florida. The three male members of the family handle all production chores, while Marie keeps the accounts and functions as continuity supervisor and occasional actress.

on an intelligent budget doesn't mean that you have to make what they used to call a "quickie". Look at the Cassevetes pictures that were done improvisationally—pictures such as "FACES". He made that for about \$60,000. and it grossed millions. It's the subject matter that counts and what you intend to do with it. We have great plans in that respect.

QUESTION: Having worked in the major studios for many years and seen how wasteful production could become, what do you feel will be necessary in order to hold costs down?

ROONEY: I think that the overall concept of the film has to be looked at intelligently and you have to abandon the principle that says that the world is full of salaries. If people will take intelligent salaries, it will leave something to use in putting the picture on the screen. Obviously, if you have only \$350,000 as a total budget, you can't give Mr. Heston \$750,000 for playing the lead. And I don't mean that you have to settle for lesser people than that. A lot of intelligent people will take points in the picture. I don't mean deferments. I mean point structures—point positions. I doubt whether anybody gives Mr. Heston 10 or 15 points in a picture, and that's a lot to have. I also believe that—just as they used to do when I was at MGM—you have to establish a contractual situation where you have 10 young ladies and 10 young gentlemen under contract and you build them into stars. I believe that you can intelligently go about building their careers.

QUESTION: That's something that just doesn't exist anymore, unfortunately.

ROONEY: We're going to have it exist here. I think that yesterday has gone by and we have to think about today. I think that in order to progress in life and be inventive and have enthusiasm, you have to talk about now and the future. We all learn from our mistakes—and I've made plenty of them—but I think that I now have an abundance of knowledge as a result.

The concept of the "one-man-band" in film-making, which presupposes that one person can do every operation involved in motion picture production (and do it well), is followed by a few rugged individualists who seem to be able to carry it off—and more power to them!

However, a visit to Cinematronics Inc., in Fort Lauderdale, introduces me to a "two-man-band" operation that would appear to be making it most successfully. Jaf Fletcher (President) and Dave Englund (Vice President) are the two "boys in the band", and, while they occasionally assign minor chores to others, they handle all of the major technical jobs between the two of them—and they like it that way.

"Grip, gopher, lighting, photography, direction—everything that you can think of that's necessary to do on a film—we do," explains Fletcher. "Each of us is capable of going out on location and handling the whole job alone. I've filmed in Los Angeles as a complete crew. About five years ago I flew into L.A. with all of my equipment—including lights, tripods, light stands, Nagra recorder and camera—and got off the airplane, loaded all of the equipment into a rented car, drove out to Harry Von Zell's home, filmed his introduction and his exit and recorded his entire

narration in two hours and flew back to Fort Lauderdale.

"I liken it to the early days of Hollywood—and it's a lot of fun. I shoot all my air-to-ground stuff myself. I simply pick up a light aircraft, shoot at 48 frames (thus eliminating the need for a vibrationless mount), get back on the ground and take a faster plane back to Fort Lauderdale in about five or six hours—and that's a day's shooting. We're now getting into more sophisticated gear—like the Vega wireless mikes we bought recently, and we've got everything else right here for making movies.

"I've made my whole livelihood here in Florida, starting from scratch. I enjoy doing everything. It's great sport. But I've gotten enough ahead now to be able to afford to hire qualified people like Dave Englund to work with me. We're grass-roots film-makers, and I go along with the *cinema verité* theory that you don't need 50 people in order to make a good film, that the content of the movie is the important thing, not necessarily how many people are in back of the camera or lifting equipment or directing or the rest. It's the talent of the individual for putting together the film that counts and I think that here in Florida that's emphasized, since we don't have a lot of people."

Back in Miami I am introduced to Egon Stephan, President of Cine Tech, Incorporated, one of the area's largest suppliers of rental motion picture equipment. Egon is a very warm, soft-spoken individual who, like his opposite number, David Haylock of Image Devices, is also a busy working cameraman.

"I believe that film production here in Florida falls into three separate categories," he tells me. "There are actually

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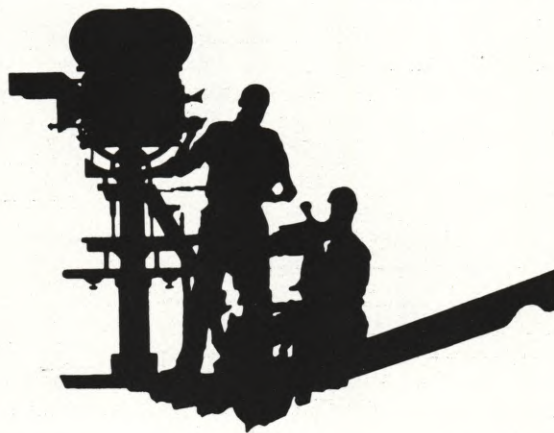
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changed. So, I was a maverick in an industry that really preferred not to have mavericks. Whether it has changed or not, I don't know, but it just made good sense for me to come to Florida.

I ran the studio. We did "FLIPPER"; we did "GENTLE BEN"; we did a half-dozen features there. Gordon Stulberg, who's a good friend, had just gone over to CBS theatrical films and had asked me to join him there and I could have gone back at that point, I guess, at least with somebody who understood a maverick, but I decided no, I'm going to stay. This was the moment of truth for me. I had no illusions about this being a production center or even that it would grow to be one. I recognized it for what it was, a fantastic location.

The other thing that I have found during the years I have been here, is that I have a far better perspective about directions that our industry could go into, in terms of its product, than I was getting in California. I stopped getting the trade papers after the first year and I didn't miss them and so my thinking really wasn't based on what somebody else was doing to see how imitative I could be. I found myself more inclined and more willing to strike out into directions that in California might have seemed like left field, but based on the exposure I had to people here, not really as way-out as they appeared to be. It's one of the reasons why, and I

don't pretend to be a seer, that "ALL IN THE FAMILY" and the success of it doesn't come as a surprise to me. I think the surprises are coming to people who are so insular in their outlook that they've lost touch with what sits out there and what that audience is really looking for.

Something in one of our papers, either today or yesterday, said that the youth picture boom is over; they've all been flops. Well, when has it ever been other than that? If one gets out and talks to the youth, that's not really what they are going towards at this point. Motorcycles are for people *my* age today. *I'm* the fellow with long hair, *I'm* the guy listening to the hi-fi turned up loud. It's not for the kids; it's for *us*. Living in California we really lose touch with that. And so, I felt there was a chance to do things here.

The other thing that interested me was that when I first came here, I began to teach film courses at the University of Miami. I had done it in California on a feature I made for United Artists called "EXPLOSIVE GENERATION". I had taken four graduate students from UCLA along on the making of a film and it had been for me a very rewarding experience, because they were in on every facet of it and for them, I think, it was rewarding, too.

So I came down here and I began to teach film and to do it in a way that unnerved the university. Certainly, it has unnerved a lot of people since I began, because I felt that the one thing that was lacking was courses that dealt

with the practical nature of film. I couldn't care less if people who work for me are conversant about the techniques of Eisenstein. I felt it was far more important to learn how to use up short ends in order to make a film, and so the one thing that I said at the beginning of the course was, "I'm going to teach you how to lie, steal and cheat, because you have to know that to be a film-maker today. It costs money. You can't do it any other way. And, so we are going to make a half-hour film with no money and you are going to have to con people out of things—con actors into working, con Sears Roebuck out of props; you're going to have to con the department store out of wardrobe; you're going to con an equipment house out of a camera; you're going to have to con the lab into processing the film." And we did that and they learned.

When I decided that I was going to stay in Florida and that I was going to leave the Animal World of Ivan Tors, which he loved and I really had a bellyful of after a while, I decided to set up my own company. I'm going to do things that I want to do, but I want to take what I know about entertainment, for example, and try to put it together with education because I feel all of us who are, in a sense, the pros of this business have been terribly lax in that regard. We've abdicated the making of this crucial form of communication, the educational film, to people who basically have very little experience in it when they start. Their goal is to get the hell out of making educational films and

(LEFT) Arriflex BL was mainstay for recent location production at Cherry Point, N.C. of Marine Aviation films by Minifilms Productions. Hidden behind camera is George Springmeyer. Checking meter is Hunter Wyatt-Brown. (RIGHT) Small crews form core of Minifilms Productions' concept. What appears to be headphones on assistant is really designed to get interference from jet noise to a minimum. (Photographs courtesy of United States Marine Corps.)



into making theatrical films.

Mine is to be just the opposite. I've *made* theatrical films; I've done the network series; now I want to move into education. I took on as my staff graduates out of my film classes with absolutely no experience—mainly because, having encouraged them to study film, I felt obliged to give them their first job in order to get the experience, because this is the one problem that they would always face.

This company was built five years ago. We are in our sixth year, with myself and three graduates from the University of Miami film department. Of the three, two are still with me. One is off on the road because, at age 28, he suddenly decided, if I have the expression right, that he wanted to find out "where his head is." And, at age 28, I felt that, "My God, if you don't know who the hell you are, go quickly and find out and then come back because I've known who you are for five years. If *you* don't know, you have a problem."

But, other than that, we've always added to the staff that way. I think one of the things that has made survival possible was everything that I had a chance to do in California. I really feel sorry for people who have not had a chance to be a part of the industry there. Because, you know, I come back to what is written on the Archives Building in Washington, D.C. It says, "What is past is prologue." In our business this is the one thing that I've tried to get across to my staff. The experience that we continue to gather is really what we are going to be using each day in film. There isn't a film problem that comes up where, if you have enough experience, you can't reach back into your precedent to solve it.

Each year there are a number of young guys who put on roller skates and discover that you can film on roller skates. And every time they tell it, we go back to James Wong Howe and even before that. You learn from that experience and what I learned in California was just invaluable to me, but I've never had the chance to do what I do here. I work a camera. When in the hell could a producer in California get behind a camera and hit the switch? Ridiculous. I work sound; I do mixing; I do dubbing. I do whatever I want to do and everyone on my staff does the same thing, because I'm convinced that the greatest luxury that we've created for ourselves in this business was the specialist.

I'm convinced that the best cinematographer that I have is also a fellow who can sit down and work sound, who can edit, who can light. Understanding



Minifilms' "under-one-roof" facility, a four-story building, not only includes sound stages, but has complete recording facilities, cutting rooms, vaults, parts services and carpentry shop. Here in recording studio, Colbert and Ed McMahon get last-minute instructions from client for narration on a land sales film, a Minifilms specialty.

and knowing all of this, when he then gets behind that camera, he's bringing into play so many other senses and so much awareness that I'm going to get something far more valuable than this. So this is the direction that I've tried to go into with my staff.

Of the companies that are down here, each has gone its own way and I think that the mainstay down here, primarily for these companies, is the commercial. For the individual craftsman it's the combination of things. It's certainly commercials and I think the increasing number of feature films that are coming down to this area.

But I think we have fallen down tremendously in Florida in terms of making what we have better known to the buyers. Whether it's the production managers, directors, producers in California or New York or elsewhere. We've far more than exteriors here; we have crews that are capable of doing thirteen weeks of a TV series on a stage and having it end up costing less. Not because our craftsmen cut corners or work for less or make under-the-table deals; they don't. But things simply cost less here than they do elsewhere and this is what I think we've really got down here. We are able to do all of the interior things here. We are able to do something that involves more than just being at the beach or having an alligator or a dolphin in it. We can even build a

mountain for Indians to come out from and we do it regularly, because the mainstay of Florida has always been the swamplands that we laughingly sell to people and, in order to get that swampland clear, you dredge it out and you make these beautiful canals. The only reason there are canals is that they had to get land to fill up the swamp and they pile it up and, before it gets leveled off, it makes a great mountain, and so there are all these potential mountains around here to use if one wants to.

Again, we are still in the business of *make-believe*; we are still in the business of *pretend* and this, again, is, I think, one of the biggest problems that I have with the young people on my staff. I think it's symptomatic of young people that they are very realistic. They are nowhere near the dreamers that we think they are and, consequently, dealing with a plastic fantasy medium, which is film, they all want to become great documentarians. They see it as it is; they can't conceive of the fantasy of the selective art.

My studio in Florida is a microcosm of a West Coast studio. It's got everything under one roof, with the exception of a laboratory and I'm not sure I'd want a laboratory. It comes as close to being a little gem studio of the type that used to exist in California and doesn't anymore, because the real estate is now too valuable out there. ■

ON LOCATION WITH "COUNTRY BLUE"

A trek to Tallahassee to cover the filming of a feature based on a true incident and shot by two young film-makers with a small crew and budget

By JAY E. SALOVARA

Two young film-makers, a small crew, an even smaller budget (under \$150,000), a three-week shooting schedule and an action-cum-blood-cum-violence feature to be shot entirely on location were the factors that led me to Tallahassee, Florida, for the making of "COUNTRY BLUE".

The film is roughly based on a true incident. A young, small-time bank robber holds up a bank and gets away with \$1,500, only to discover later that he has left \$25,000 behind. With the newspapers headlining his mistake, he decides to stick up the bank again, to "show 'em." "COUNTRY BLUE" was being shot in approximately the same locale in which the original incident took place.

Jack Conrad, the film's Co-Writer, Director, Editor and lead actor (under the name James Townsend), and Emmett Alston, Producer, Director of Photography and Cameraman, were already well into the day's shooting when I arrived on the set in mid-morning.

Conrad and Alston met while they were students in the cinema department at U.S.C. Jack went on to write and direct several documentaries and short subjects, was Editor of the motion picture "MOONCHILD" (*American Cinematographer*, Sept., 1972) and even managed a rock and roll band for a brief time. Emmett, whom I had known in the Air Force's combat photography squadron in Vietnam, was Director of Photography on "MOONCHILD".

The rest of the young, but professional, crew came from diverse fields. Emmett said that they were chosen for one reason. "They like film and want to make films. We have a tight schedule and long hours. If film is your main occupation, however, hobby as well as work, it's fine."

The crew was in the process of setting up for a car chase scene when I arrived so I settled back to watch and to sweat, in the heat and humidity of the Florida panhandle in mid-August.

Jack Conrad is originally from Tallahassee and it was obvious that he knew the area well. He had chosen strikingly beautiful locations for this film. As he told me, "It's an interesting part of the country. It's a part of the country that's

not seen very often either in motion pictures or television. It's very beautiful and it has a lot of interesting characters."

One of the most interesting characters wasn't a person at all, but rather an old, cranky Dodge Dart automobile that apparently wouldn't stand for being deliberately wrecked. By the end of the day everyone had nicknamed it, "The car that wouldn't die."

The legend began that morning when veteran stunt man Bill Bowen could not seem to get the Dart to properly spin out and smash into a bridge railing. In five takes, all it did was dent up its left front fender a bit.

After lunch the crew prepared to shoot the Dart's "big crash scene." This was shot on the Conrad family plantation north of Tallahassee. Alston mounted the Mitchell BNCR on the Hydra 1500 Crane and used a 35mm Arriflex and 16mm Cine Special (as a backup) to record the crash. Actor-Director Conrad, who was also doing his own stunt driving, drove the first car, a Camaro, around the sharp bend in the dirt road. The pursuing Dodge Dart was supposed to miss the curve and demolish itself against a large and specially selected tree.

Jack described his reaction to what did happen: "I heard him accelerate and then slow down, then this thud. It was a total bummer. I wanted that damn Dart totaled but it didn't work. The driver for the crash, a local guy, just didn't get the car going fast enough.

"But the sequence ended up a total creative effort on everybody's part," he added. There was an old clay pit a few hundred yards away and since the Dart, with only its right front fender and grill pushed in, could still run, the chase was continued. Jack drove the Camaro past the tree, yelled an obscenity, Bill Bowen slammed the Dart into reverse and hauled out after him. They chased each other over the grassy plantation hills toward the pit.

By now the sun was falling fast, thus making it a race against time to complete the sequence before dark. The idea was to have the Dart (minus a driver) go over the 15-foot cliff and land in the water, but on the first take the Dart

overshot the main part of the pit, continued through the water, up the shallow embankment at the far end, and over the grass for another two hundred yards until it found another tree to hit, finishing off the rest of the front end beautifully.

But now it wouldn't run! So, the crew frantically towed it back and, with the camera carefully "cheating" around the demolished front end, they pushed it off the cliff and into the pit again. And this time it landed squarely in the water! As the sun set, Bill Bowen was hurriedly smeared with movie blood and filmed stumbling out of the car and falling face down into the muddy water.

End of chase, end of car, end of sequence, end of day.

Jack was somewhat philosophical after it was over. He said, "That's what motion pictures are all about. You try this and you try that and if you blow it, you just try it again, or if it doesn't seem feasible you try it some other way. In this case, it led to a much more interesting sequence."

The following morning we traveled to Valdosta, Georgia, some two hours away, to shoot the racetrack sequence at the North Valdosta Speedway, a 5/8 mile dirt oval.

Emmett explained some of the problems: "This was our first major dialogue scene and we could get into the speedway and get the cars for only one day. It was a scene that should have taken three or four days to shoot and we did it in *one* afternoon. We had 50 or 60 extras and quite a number of cars."

Jack added, "We wanted to capture the look and feel of the pit area, which is a noisy, crowded place. We had to restrict our angles and make at least one section of that pit look like the real thing. It was damn near impossible to keep those extras organized and keep them in the right place at the right time.

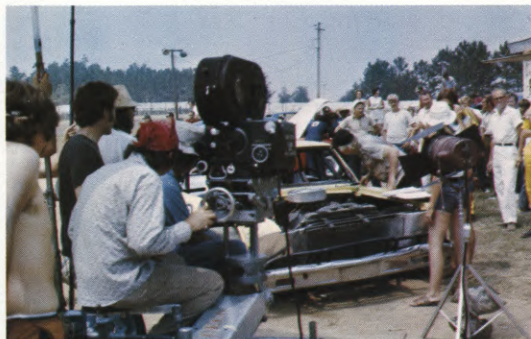
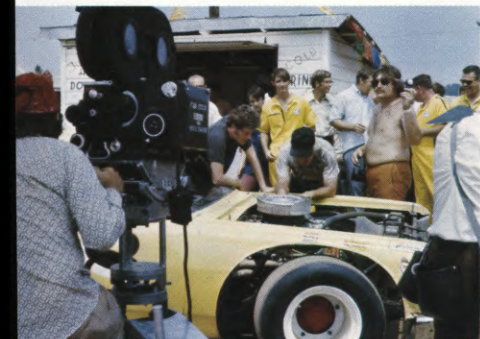
"What was incredible was the heat. It was 98 degrees in Valdosta and probably 105 degrees on the track and 130 under the lights. We were tired and losing our concentration. I don't know how we got everything we did. It must have been guts."

It had to be sheer guts that kept that

Continued on Page 778



(LEFT) Film Director Jack Conrad (center) and Director of Photography Emmett Alston (right) discuss set-up for "big car crash" scene. Assistant Director and Crane Operator Charlie Smith listens in. (CENTER) Director of Photography Emmett Alston, operating Mitchell BNCR, films a portion of one of the several chase scenes. (RIGHT) Two cameras, one concealed behind bushes on right, film the bridge "spin-out" of Dodge Dart ("The car that wouldn't die").



(LEFT) Gaffer Steve Ullman (right) reads exposure for Director of Photography Alston as Jack Conrad and Dub Taylor rehearse scene, at the North Valdosta Speedway. (CENTER) Director Jack Conrad (dark shirt, left) who, as leading actor, spent most of his time in front of the camera, here gets rare opportunity to observe filming from behind it. (RIGHT) Director of Photography Alston shoots a scene outside a rural nite club near Tallahassee.

(LEFT) Crew filming at "Jumpy's shack" location near Tallahassee, using wedged 2x4 boards as dolly track. (CENTER) Veteran actor Dub Taylor here doubles as make-up man and squirts "spritzer" on Actor-Director Conrad. Later in the day, fake perspiration became less and less necessary in the high heat and humidity of Tallahassee, Fla. (RIGHT) Director of Photography Emmett Alston and Assistant Camera "woman" Suzanne Wiscover film race with BNCR mounted on Hydra 1500 crane at N. Valdosta Speedway.



(LEFT) Jack Conrad and young extra rehearse scene inside nite club. (CENTER) Director Conrad and actress Mildred Brown rehearse scene inside nite club. (RIGHT) Jack Conrad (left) discusses blocking in country store with extra. Camera is concealed behind goods counter, at right.



Continued from Page 702

the annual Exhibition of Professional Photography (the print exhibit) will be in the center of activity at the Denver Convention Complex. The Technical Products Exhibit offers a wide variety of products and services for the professional photographer. Over 140 exhibit spaces by 57 exhibitors are under contract.

The National print judging will be on Thursday and Friday, August 1 and 2, just prior to the opening of the Convention. It will be open to the public at Denver's Currihan Hall. Deadline for entries is July 16. Copies of the entry forms are available from the PP of A, 1090 Executive Way, Des Plaines, IL 60018.

The Professional Photographers of America, Inc. is the oldest and largest organization of professional photographers, with international headquarters in Des Plaines, Illinois.

CINEMA STUDY SCHOLARSHIP OFFERED IN 1973 KODAK TEENAGE MOVIE AWARDS

A six-week college level cinema study scholarship including work in a Hollywood studio will again be top prize in this year's Kodak Teenage Movie Awards.

The grand prize is for all-expense-paid summer study at the University of Southern California Department of Cinema. If the winner is unable to accept, an alternate prize of \$1,000 scholarship to any college affiliated with the University Film Association will be offered.

Young filmmakers through 19 years of age are eligible to enter one or more of the Awards' four categories, which are:

Pre-Teen, ages through 11 years, for Super-8 and 8mm films.

Junior, ages 12 through 15, for Super-8 and 8mm films.

Senior, ages 16 through 19, for Super-8 and 8mm films.

Sixteen, for all 16mm filmmakers through 19 years of age.

Films may be silent or have sound on film or on a separate tape, and up to 30 minutes in length. Entries may be on any subject and shot in black-and-white or in color.

Bronze medallions, certificates, and cash prizes will be awarded in all categories. Winners in all four categories will receive a first prize of \$150; second \$100; third, \$50; and special awards, \$25.

The Awards are sponsored by Eastman Kodak Company in cooperation

with the University Film Foundation (UFF) on behalf of the University Film Association (UFA) and the Council on International Nontheatrical Events (CINE).

Entries must be postmarked not later than September 15 to be eligible for the 1973 Awards. There are no entry fees. Rules folders and entry blanks may be obtained by writing Teenage Movie Awards, Dept. 841, Eastman Kodak Company, Rochester, New York, 14650.

FILM CLASSICS AVAILABLE

The University of Miami Film Society has purchased five classic films and eight short subjects with a gift of \$800 from the Adult Film Society of Miami. The films, listed below, are available for rental at relatively low rates, said James M. O'Brien, faculty advisor for the society.

Classic films purchased are: Fritz Lang's "M", a 1931 German sound film starring Peter Lorre; Buster Keaton's "The General," a 1926 American silent comedy; E.A. DuPont's "Variety," a 1925 German silent film starring Emil Jannings; Serge Bourguignon's "Sundays and Cybele," a 1962 French film starring Hardy Kruger and Nicole Courcel, and Charlie Chaplin's "The Gold Rush," a 1925 American silent comedy.

Short subjects include: Eisenstein's "The Odessa Steps," 1925; four short comedies by George Melies—1903; Buster Keaton in "The Garage," for Mack Sennett, 1916; Luis Bunuel and Salvador Dali's "Un Chien Andalou," 1925, and "The Life and Death of a Hollywood Extra," 1928.

Other films will be acquired later with monies from the gift and will be announced as they become available.

Inquiries about renting the films may be made through Mr. O'Brien in the mass communications department, P.O. Box 8127, Coral Gables, Fla., 33124, or by calling him at 284-2265.

AFI ANNOUNCES INDEPENDENT FILMMAKER AWARDS

Fourteen filmmakers have received awards totalling more than \$100,000 to make new films in the latest cycle of Independent Filmmaker Awards announced by AFI Director George Stevens, Jr. A Review Committee composed of Constance Beeson, Jordan Belson, Jan Kadar and Donn Pennebaker made final selections from among the 396 applicants, with additional help from Irvin Kershner. The Review Committee met at AFI's Center for Ad-

vanced Film Studies from March 26 through March 30.

The new awards range from \$2,000 to \$10,000. Recipients are:

Stephen Beck, 23, of Berkeley, to make an experimental film, CYCLES;

Roberta Cantow, 25, of New York, to direct HOLY BOY WITH LIFE, a dramatic film;

Paul Cerny, 27, of Los Angeles, to direct THE HOMECOMING (COME BACK SOLDIER), a dramatic film;

Henry Cheharbakhshi, 29, from Chicago, for a documentary, JANICE;

Vincent Collins, 28, of San Francisco, to make an animated film, STALKING THE ESSENCE OF ANIMATION;

Tony Conrad, 33, of New York, for ARTICULATION OF BOOLEAN ALGEBRA FOR FILM OPTICALS, an experimental film;

Deborah Dickson, 27, of New York, to make COMING OF AGE: PORTRAIT OF A HIGH SCHOOL GIRL, a documentary;

Elliot Erwit, 44, of New York, for a documentary, OLD TIME FIDDLER'S CONVENTION;

Linda Feferman, 23, of New York, to make a documentary, A FILM ABOUT MENSTRUATION;

James Johnson, 23, from Arcata, California, to make TRANSMAN, an experimental film;

Standish Lawder, 37, of New Haven, Connecticut, to make EXPERIMENTAL STEREOSCOPIC CINEMATOGRAPHY, an experimental film;

Frank P. Mouris, 28, of New York, to do S. S. ANDROGYNE, an animated documentary;

Mark Obenhaus, 27, also of New York, to direct MUMBLES END, a dramatic film; and

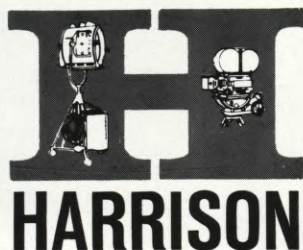
Claudia Weill, 27, of New York, to make AN AMERICAN JEW OR THAT NICE GIRL FROM SCARSDALE, a dramatic film.

One hundred filmmakers have now received AFI Independent Filmmaker Awards totalling more than \$670,000; of these 52 films have been completed to date.

The Independent Filmmaker Award Program is funded by the National Endowment for the Arts. In addition to NEA support, AFI received a \$2,000 grant from the Peg Santvoord Foundation, which the Institute designated as part of Mark Obenhaus' award.

The next cycle of awards will be made in October; the deadline for applications is July 15. All inquiries should be addressed to the Independent Filmmaker Program, The American Film Institute, 501 Doheny Road, Beverly Hills, CA 90210. ■

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BITTEN BY THE FILM BUG

By LUKE MOBERLY

The Moviemakers, Ft. Lauderdale, Florida

There is a new disease going around that seems to be very easily contracted and almost impossible to cure, called FILMMAKING. I caught it from a casual acquaintance back in 1964 and am destined to have it the rest of my life. If you are wondering if you have it, here are some common symptoms: You would rather work than sleep or play; you spend every penny you earn on equipment; you lose track of the story in a movie because you are excited by a real tough camera movement or a set that was hard to build; you read scripts at the breakfast table instead of the paper; everything you see or hear becomes a potentially good film set or title.

I have gotten so bad now that I even lie on the floor watching TV and find myself tapping it with my foot like a Moviola, trying to back up the scene because it didn't look like it cut well. Besides all the bad, there is some good. Your whole life changes from having to work for a living to wanting to go to the

Studio every day and play. At least, that's the way I feel.

I was very happy and fairly successful designing big displays, building buildings and manufacturing doctors' equipment for about a hundred offices a year when some producer asked me to build sets for a film being shot in Miami. I built a whole jungle set on a piece of woods property I happened to own in Ft. Lauderdale and it seemed easy and profitable and really turned me on when I saw it all lit up and the cameras rolling. It wasn't long before I decided to build a sound stage right on that spot. I had never been inside a studio but designed one anyway and started construction. I hired someone to do the electrical and plumbing work and my son-in-law and I did all the rest.

I built all the furniture for the offices and opened the doors for business. Low budget filmmakers began to come to rent it and bigger ones had promised to come, so I built another bigger studio across the canal. I built all the sets for

seventeen more features shot at my studios. You can put about twelve rooms on the floor at a time in the two stages. As years went by, I began to buy equipment and, of course, everything you buy, you want to learn to operate—so I did. Also, you want to change jobs now and then, so when the opportunity arose, I ran camera, the Nagra, directed, made budgets for others, wrote screenplays, edited, transferred, mixed, etc.

Once I gained enough knowledge of filmmaking, I built an office building and tried to help all the local producers get together and make films. Twenty-eight features came and went from my place and hundreds of commercials before I realized I had nothing more to show for it than a lot of deferments owed me, and buildings full of equipment. All the little ones I helped went out of business and the ones who made it left and forgot me.

I was deciding whether to sell out at offers around a half-million and forget the business or make films myself and

(LEFT) "Studio B" at Luke Moberly's Disneyesque spread in Ft. Lauderdale consists of a sound stage and restaurant. (CENTER) "Studio A", with false fronts that make up part of 1911 town in rear. All buildings were designed and built by Luke, with only the help of his son. They also built all of the furniture and sets. Rick Moberly is now official set-builder for the studio. (RIGHT) Director Moberly, preparing to shoot "THE FLYING GOSPEL", talks to "ward girl" Penny Lou, as Elaina Miller (Sister Sara) listens.



(LEFT) This 1929 Travelaire plane is one of the major props in "THE FLYING GOSPEL", which stars Luke Moberly as Clay Teeter and Patti Panarella as Pearlene. (CENTER) Director Moberly poses in front of the plane with some of his beautiful cast members. (LEFT) In a scene from "THE FLYING GOSPEL", Rev. Clay Teeter turns a group of hippies on at the beach.

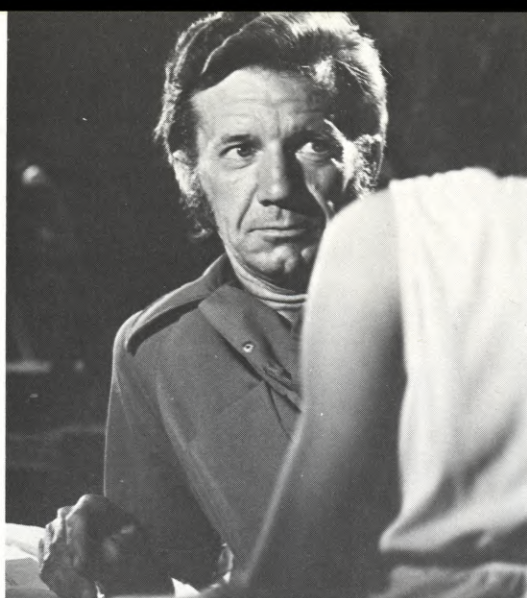


try for broke. I read a story of the history of Florida by Philip Weidling and was sorta fascinated with the famous bank robber, John Ashley, so I asked Phil to write the true story of him for me. I wrote a screenplay from it and scouted locations that were factual and even built eleven sets for it before I had any money to make it. Then, I met a former theatre owner named Louis Wiethe who was interested in investing himself and raising the balance to shoot it. We went on to produce it together and I directed it.

The only thing I needed then was the cast so Lou and I went to California for the leads. We had some beautiful offers from name actors, but the only one I regret not using was Burt Reynolds. He would have made a beautiful John Ashley, plus the fact that I would have had the two hottest young stars in the country in my very first feature. Anyway, we had foresight in the female lead. I had seen a small picture of a young actress who had never played a lead role, but I thought she looked like what I needed. I read a few pages of the script with her and said, "That's all I need to hear, you've got the part of Laura Upthegrove." Her name was Karen Black.

Most of the people working with me wondered where I got that kookie little hippie girl, but by the end of the first day's shooting, I was convinced she would be my film and outshine everyone else. Most everyone was mad at me for changing the script every day and the feeling got to be that I was in total confusion and didn't know what I was doing. I guess that happens to most all new film directors. Before the film was over, they all began to realize Karen was stealing the scenes. Today, she has proven I was right. For that, I am grateful to Karen Black, although she has forgotten me the same as the others who made it. We held our film back till Karen became one of the hottest properties around and it is now opening under the Crown International banner.

After working in the early 1900 era with all of the antique cars and clothes, I tried to write another period picture about the rum runners, but just couldn't come up with something I thought the young people would buy. Then, one day, I decided to move into today's time slot, but keep the old antique 1929 bi-plane I had rounded up. I wrote an original screenplay around a crop duster in Mississippi named Clay Teeter, who was married to the preacher's daughter. Even though I own studios in Florida, I wanted to go to Mississippi to shoot all the scenes of exteriors, in order to establish the locale and be able to film



(LEFT) Moberly plays scene as Clay Teeter, a crop-duster who comes to Florida in his 1929 bi-plane and becomes a phony preacher. (RIGHT) Wearing two hats, Moberly gives directions for filming from the cockpit of the Travelaire, as he prepares to play in the scene himself.

the cotton fields with the crop dusters. We loaded up the truck, rented a couple of beautiful camper busses and took off on a beautiful trip to Mississippi.

The town of Yazoo City is very small and has only one hotel, but we managed to rent one whole floor and keep everyone together. The cooperation of the local people and free use of all the locations made the trip more than worth the extra expense of travelling. After two weeks of filming in the small country church, cotton fields, jail, country stores and a baptizing in the river, Clay Teeter's wife, Edith, caught him wrapped in the arms of Pearlene in the outside toilet behind the church. That was more than she could take and she went berserk, grabbed up a shovel and chased them to Pearlene's car and broke out every window before they could get away. Clay was worried that he might have run over her so they took his old 1929 Travelaire bi-plane and flew to Florida.

We moved our gang then to our studios in Ft. Lauderdale for the balance of shooting, which took almost two months. When Clay and Pearlene arrive in Florida in the old plane, they hitch a ride to town with some hippies in an old bus and wind up staying in the woods with them. The boys turn out to be a rock group and it doesn't take Clay long to get a big idea to put them to work to get rich. He big-deals an old tent and song books, rehearses everyone a little and takes off to all the small Florida towns, preaching that old-time religion, with the boys becoming the Gospels, Matthew, Mark, Luke and John and the two pretty girls, Sister Agnes and Sister Sarah. Clay becomes the Flying Gospel.

When we finally moved the tent, bus

and plane to the beach to turn all the hippies onto God I began to believe I was going to get what I was hoping for when I wrote it. We had the crew put the tent up and the band on the stage outside the tent this time, to play some rock music and gather up some long-haired kids for extras. I had a big banner made to tow behind a plane that read "The Flying Gospel, Ft. Lauderdale Beach." We would be prepared to film when the plane made its run-bys and I would start my preaching to the kids but get into the hand-clapping and Hallelujahing when the plane was overhead. I had hoped to turn the kids on for these scenes, but their response was so great they actually turned me on. When we were finished filming I thanked the kids and they begged me to keep going. When we came back to the studio, the rock group and cast and crew wanted me to take the tent out in the town and have a Gospel Rock Revival just for the fun of it. I sure hope we can get that kind of feeling from the young people in the audience when it plays the theatres.

"THE FLYING GOSPEL" is all shot and I am editing it at present and also writing on my next screenplay titled "SPEAKEASY". We plan to start shooting it in June. Since we own our studios, restaurant, back lot town, have jungles, canals, sets, a thorough knowledge of filmmaking, plenty available new faces for cast and eager, qualified technicians, do not have to rent one piece of equipment, and have our own money for the film budgets, I think we have a pretty good chance of starting a small film industry in Florida. At least, we plan to make one film right after the other and hope for the best.

Continued on Page 760

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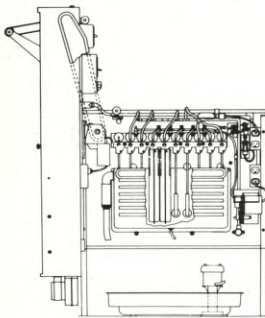
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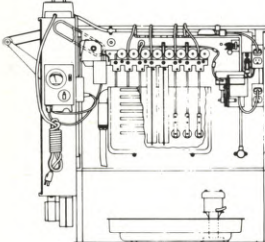
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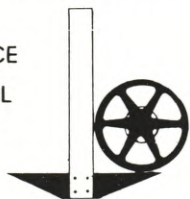
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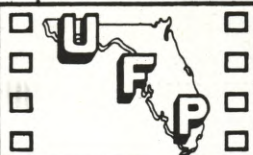
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Phone: (904) 733-3800
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W. Staging by Schmale Location Mobil Unit
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AA. Wurtele Film Productions
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F. Fine Stage Facilities
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G. H & H Productions
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H. The Smith Studio, Incorporated
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I. Soundlab, Incorporated
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4120 Aurora Street
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Phone: (305) 754-9539

L. Woroner Productions
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North Miami Beach, Florida 33161
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B. Channel 8 Color Laboratory
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D. H & H Productions
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FLORIDA FILMING SCENE

Continued from Page 725

three different types of producers making films down here. Number one is the visiting producer, who comes here from someplace else and stays just long enough to shoot his film. Then there's the local 16mm documentary-type, promotional-film-type producer. Finally, there is the local feature film producer.

"Visiting producers involved in the making of TV commercials swarm in here in the wintertime and keep us very busy. Visiting producers of feature films are rare, but not as rare as everybody thinks. Last year there were seven or eight features made here by visiting producers. I'm counting, also, the producers working in the Caribbean, because they usually come through here to pick up equipment and crew.

"The local documentary producers have advanced tremendously in the last six or seven years. They have become more professional and they charge more for their pictures than ever before. The local producers of TV commercials find it hard to compete for national accounts, because the New York agencies and directors have their own little clique and like to bring in their own people. However, there has been a definite improvement in the area of local feature production. I can think of about ten features that are scheduled to roll in the near future. There are also plans to produce several TV series locally for syndication.

"I don't see a great many extraordinary advantages to shooting in Florida, although many people claim that there are. It's true that we have good shooting weather here most of the time, but there are other places, like New Mexico, where you can probably get the same kind of weather. There are, however, a couple of benefits here. I honestly believe that you can produce feature films here less expensively than anywhere else. The other benefit is that our

crews are trained to work fast and efficiently—and they're really very hard-working people."

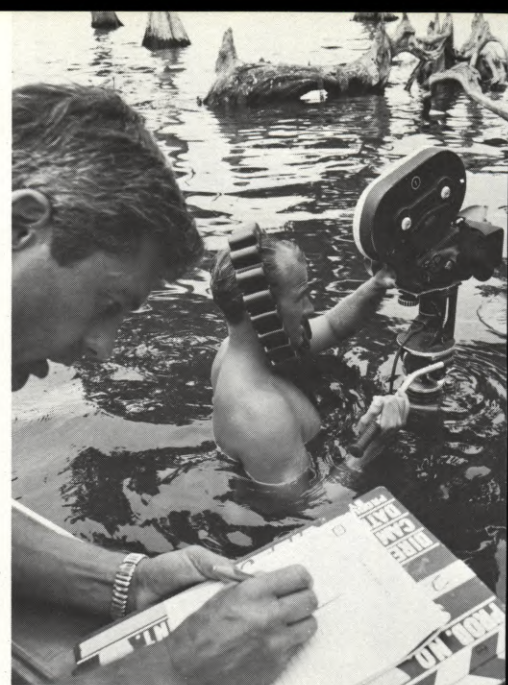
Egon very kindly provides a helicopter for me so that I can "make my rounds" faster and more efficiently. We buzz over to Fort Lauderdale and literally "drop in" on the Moberly Studios. Luke Moberly and his little crew stand there goggle-eyed as the helicopter settles down on their backlot. Though I've never met the gentleman before, he exclaims, when he recognizes me: "Herb Lightman! I can hardly believe my eyes. There's nobody I'd rather see than maybe God himself!"

How's that for an Oklahoma Hello?

As a grade-A character, Luke Moberly practically defies description. A warm, friendly cracker-barrel type who calls himself a "hill-billy", Luke is a wild combination of sharp intelligence, incandescent smile and 100-proof enthusiasm—an absolutely electric personality.

His little studio, which he built with his own hands, is like a miniature branch of Disneyland. The backlot features rows of diminutive buildings which, I am told, represent Fort Lauderdale the way it looked in 1911. The rest of the place is like a big playpen—full of homemade gadgets and gizmos for making movies. Luke has just completed his first feature production on which he functioned as writer, producer director and star. He is clearly having the time of his life and I find myself envying this man who has built this fabulous toyland where he can have nothing but fun.

In sharp contrast, Stanley Colbert, ex-patriot Hollywoodian and President of Minifilms Productions, in Fort Lauderdale, is a suave, sophisticated man-of-the-world, but he, too, is having fun. His playpen is a building known as "Under One Roof", which is described in a brochure as "three floors of film, recording, and graphic arts facilities, with soundstages, recording studios,



During shooting by crew of Patterson Studios, Cypress Gardens, Florida, cameraman drapes battery-belt over his head to keep it dry.

photo-typographers, offices, photographic labs, mix-down center, dressing rooms, art studios, dub center, editing rooms, viewing rooms, writing rooms, prop rooms, meeting rooms, music rooms, ladies' and men's rooms, and lots and lots of room."

A conducted tour of the complex confirms that the brochure does not exaggerate.

Both Luke Moberly and Stanley Colbert promise to write their own articles for our Special Florida Issue of *American Cinematographer*, so I won't go into further detail about them at this point.

The time has come to leave Florida. I've seen a lot in the week that I've been here, but the fact is that there has been time for only a sampling of the film-making facilities in the Miami area, and none at all for the rest of the state. I can already hear the screams of those who will feel that they have been slighted because I wasn't able to make a personal report on their respective operations.

But that was not my objective, and it would not have been possible in any event. I come away with the impression that this is a pleasant place to make films—at least in the wintertime—and that all of the requisite facilities and technicians are available here.

However, what impresses me most is the fact that in the time I have been in Florida, I have not met one person who was not absolutely turned on with excitement and enthusiasm at the prospect of making films.

That is a priceless attribute. I hope it never changes. ■

Giant hand-made reflectors set up for shooting of suntan oil TV spot on location in San Martin, Virgin Islands. Note light-weight dolly, made especially for this job. Miami's proximity to islands of the Caribbean makes it convenient to supply equipment and crews to these locations.



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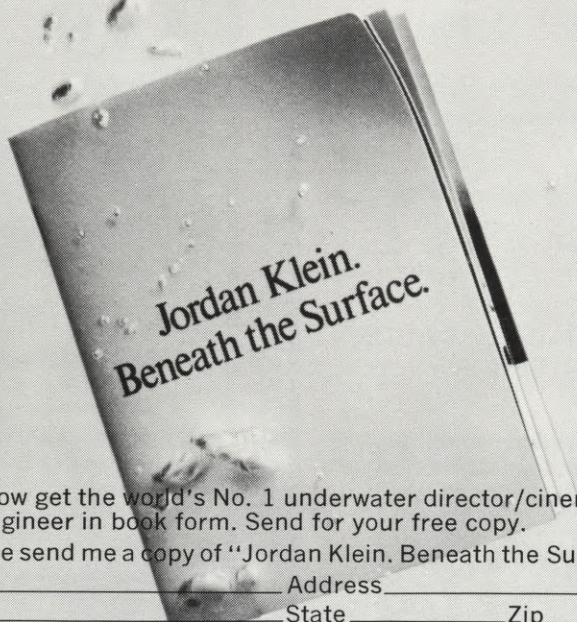
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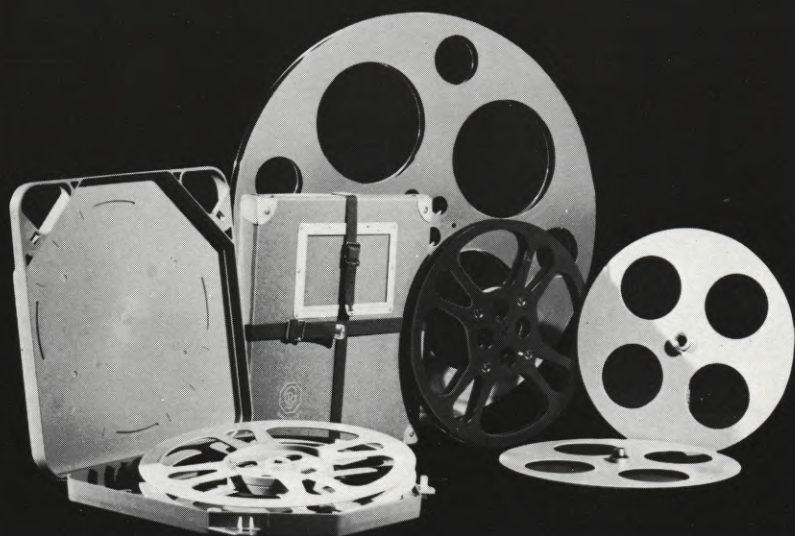
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WHAT ABOUT "ZAAT"?

Continued from Page 767

train sonar operators to be able to distinguish between a fish and a weapon.

About the only sounds that weren't natural were the walking effects in the woods (using a box full of dried leaves) in a sequence shot while I was editing a part of the picture. Radio transmission effects were obtained by using small citizen-band radios and recording the actual sound of the received signals. This added to the realism, as the effect of a squelch signal was obtained. Holding on to the radio's antenna while recording altered the signal strength of the small units and created a "fading" effect, difficult to achieve without some form of variable phase shifter.

Other underwater sounds were created by using a metal tank full of water with a contact microphone stuck on the side (like a guitar pickup). We were able to get unusual bubble and underwater noise effects using this tank.

From a post-production standpoint, the real problem was the transformation scene. Nothing was written in the script for it. Since "ZAAT" is supposed to be a new compound, Za At, the problem was to create the effect in the viewer's mind that it was actually a transformation liquid which was supposed to cause fish to mutate and allow the man to turn himself into a fish. The only thing that seemed to add an idea of "instant" recognition, was the use of a geiger counter. So, every time the Za At fluid is opened or sprayed or used, I added the sound of a geiger counter. It increases in intensity when the results are more ominous.

The electronic hardware that augmented the fluid was the real problem. As it was all surplus radar equipment rigged with flashing lights, it made no sound. As a matter of fact, I've always wanted to see a horror movie in which all of the equipment was transistorized and things just happened, with no noise. At any rate, practically everything has been done in this area of effects and we had neither the time nor budget to invent anything new. The idea was just to have something happen, and not make a career out of it. Stealing sound from someone else's picture occurred to us briefly, but we resorted, instead, to a combination of noises made by the older relay-type telephone exchanges, plus a combination of the tones such as are heard on a long distance telephone circuit. For this, I recorded several different frequencies from our test oscillator. In the editing room, I spliced

in—arbitrarily—two frames of this, one of that, three of this, etc.—until I wound up with a loop of film about three feet long that was all splices. The first one ran about six inches before it came apart, got caught in the sprockets and proceeded to self-destruct.

I put a new one together, this time not cutting the splicing tape, but using a continuous piece of tape with the various lengths of film stuck to it rather than a physical completed tape splice at each cut. Again it was about three feet long so that it wouldn't repeat itself too often. This one ran through all right, but sounded like nothing. I had failed to think musically when I "arbitrarily" spliced in the tones. So, I re-did it, this time remembering some of my music instruction from years past. In effect, you simply have to make the tones very different from each other in order for them to be noticed. The loop I used in the film is about the fifth one I made. I transferred this loop to one of the tracks on our two-track recorder at 7-½ ips. Then I rewound the tape and, on the other track, recorded the loop backwards at 15 ips. I used it running at 7-½ ips during the preliminary operations in the lab, mixing both tracks. At the instant when he is supposed to be "transformed", I changed the recorder back to 15 ips, which made everything appear to speed up. When the transformation took place, I removed the sound altogether. He then gets out of the tank to the sounds of a telephone exchange, some bubbles, plus the sound of a square-wave generator.

The entire operation was facilitated by the fact that I was functioning both as editor and mixer. Whenever known effects were required, such as a telephone, radio, inside/outside filtering, etc., I made these in the transfer. This had the added advantage that, when making rough screenings, I didn't have to explain... "Well, there will be the sound of a radio here"... "You will hear the voice like you hear it over a telephone", etc. It is very difficult to explain this to people who have no knowledge of the business. Also, the switching in of the various equipment necessary to simulate the effects requires more hands than I have, particularly when there is more than one track running.

Our primary interest was in obtaining as good sound as possible within our limitations. Careful notes were made on our location recording logs to note such things as volume setting, equalization used, whether we had a filter or not—all so that we could duplicate the same sound conditions if we had to go back, shoot another scene, or whatever, at the

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various locations. This also aided in the transfer operation. Different mikes have different "sounds". Sometimes you have to use two different mikes in the same scene. With the notes, it was possible to re-equalize one track over the other so that they would cut together without having to make the change in the mix.

As in any film, there were many little things that were done that could fill volumes and would make interesting information to anyone in the same field. But the results of this effort proved that it could be done. It saved a great deal of cash outlay in terms of supplies and made possible the use of an existing facility. I would not hesitate to utilize this method in the production of any theatrical film and, while it isn't comparable to the results obtainable with 35mm magnetic equipment and more sophisticated facilities, it should offer opportunities to others who might have been hesitant. If I were to do it again, the only other recommendation would be that you make certain that your equipment is adjusted and checked out to be in its optimum electrical and mechanical condition. While you can slide by with good 35mm equipment, everything is more critical in the 16mm format, especially in regard to noise, frequency response and motion stability.

Finally, this method is not meant to substitute for skilled personnel or properly maintained equipment. We have worked in this way out of economic necessity and to make use of an existing facility, the main limitation of which is that it was designed for 16mm. The amount of extra time spent in pre-mixing, in dreaming up ways to make it possible to use one less track, the preliminary recording and transfer work that required hours of "thinking" in order to build in special effects, such as telephones, changes in perspective from outside to inside, etc.—all this could be handled very competently, and with greater ease, by organizations possessing more sophisticated equipment.

For me as an artist, though, it was worth every minute. As an editor, I had TOTAL control over everything. I didn't have to accept a good mix when I could try for a better one. While it was my own time, I knew that I could keep at it until I could milk every decibel out of every sound I knew was in the track. If, after hearing all of the sounds together, I wanted another cricket chirp, I put it in. On the other hand, when it was bad, there was no one else to blame, I just had to try to dream up a way to salvage it.

"ZAAT" was what it was all about. ■



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STREAMLINED APPROACH

Continued from Page 701

The summer season is hot and humid and this can be very rough on someone coming from an area where there is a more moderate climate. However, this hasn't caused us any mechanical problems. There's one little trick to remember: if you're going to shoot outside, you have to let the film stay out there for a while before you start, although not in direct sunlight. Frequently, before I learned that trick, I used to take the film inside at night to keep it nice and cold. I'd load up the camera in the morning and it would jam immediately—particularly on a magazine-drive camera.

One thing I should mention is that there is a decided difference in the quality of sunlight here (perhaps because of the clear air). Our sun is very hot, and several cameramen who have come here from California and New York have had a lot of trouble with the contrast. Our local cameramen are used to shooting under these conditions and seem to know how to make the proper adjustments.

Given the favorable climate and good available exterior light most of the time, it may come as a shock to some people

to learn that last year 60% of our shooting was done on a stage. This year, so far, we've been working more outdoors, but we still do a lot of stage shooting, mostly because of the lighting control which it offers. We've been doing a lot of interesting lighting and getting a lot of jobs because of that.

As far as there being a feature production capability here is concerned, I'd say there definitely is one. The local government would love to have more features here and they're opening up a lot of locations for use. The State of Florida is also very actively promoting feature production, and that is helpful. Also, our actors are getting more accustomed to working in features. I think that the feature and commercial segments of the industry are much closer here than in other areas—probably because there are fewer people engaged in production. As far as our company going into feature production is concerned, I believe we'll ultimately do some of that, but we're not going to sacrifice anything of our present operation to do it. The worst thing you can do is get your clients down here to do their commercials and then look the other way while you produce a feature. We won't do that—so, it's mainly commercials for now. ■

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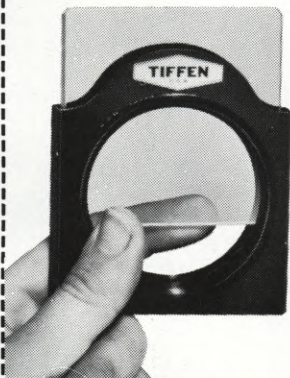
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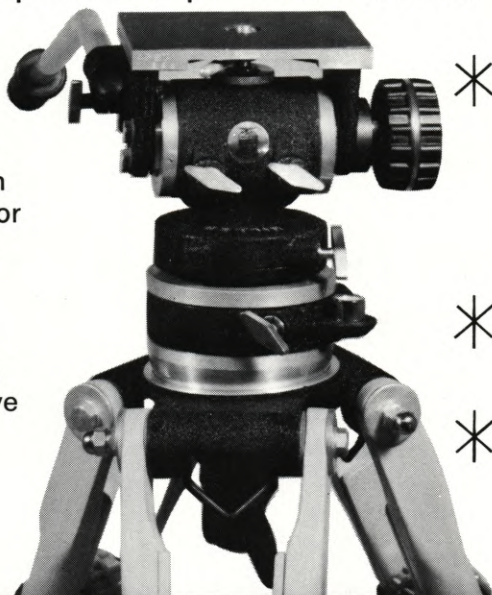
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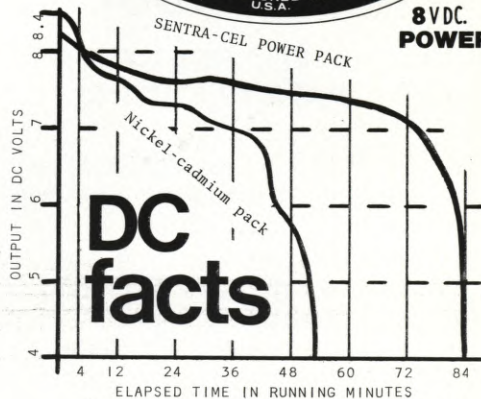


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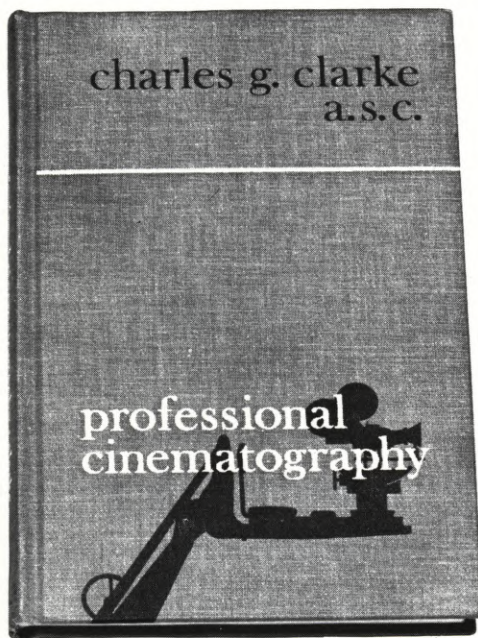
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ABOUT THE AUTHOR: Charles G. Clarke, ASC, a top Director of Photography at 20th Century-Fox for many years, and an ASC member, taught Advanced Cinematography at the University of California at Los Angeles, where he recognized a need for practical professional 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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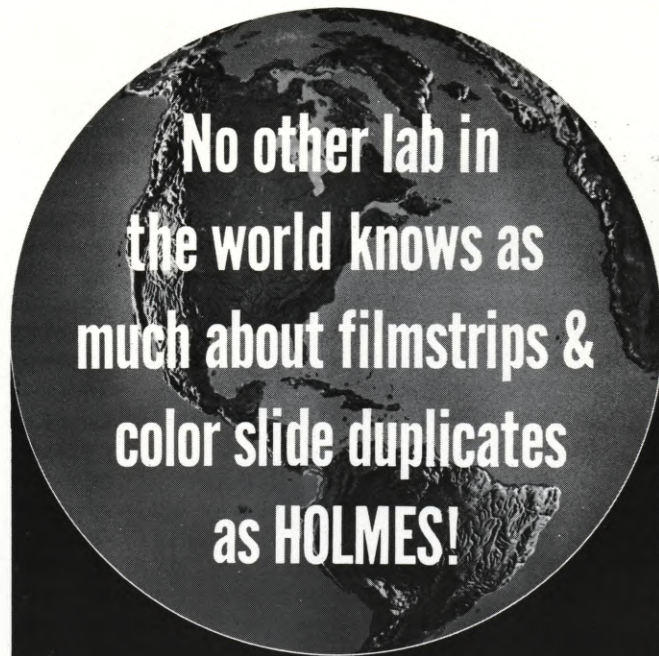
Continued from Page 715

house so I ran out to the boat dock behind the parking lot where I found Jordan pulling our 50 mph camera/diving boat out of the water.

Jordan went in to answer the phone and I reluctantly left the warm sunshine to return to the office. Walking through the warehouse, I passed the many props that Jordan has designed, built, or used for various movies, television series, and commercials. There are two tow scooters designed and built for "THUNDERBALL", the underwater flying saucer built for "THE AQUARIANS", and the two-man wet submarine used in "PRIMUM". And, lying in a corner, is an eleven-foot fiberglass shark with an over-sized, blown-up belly that was used in the newest James Bond picture, "LIVE AND LET DIE".

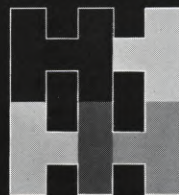
When I look around the warehouse and see the props sitting in a corner collecting dust, I see all the crazy, hectic days of the past, preparing for and working on commercials, television shows, and movies of all types and I get excited about tomorrow. Jordan will get another phone call and his incredibly flexible mind will matter-of-factly create an object that will entertain people all over the world. Of the host of products and props we make and the services we supply, the one thing that will continue to feed life into us and make us grow is Jordan Klein's talented mind. Oddly enough, after twenty years in underwater photography, Jordan feels that this field is still in the infancy stage. He sums it up by saying, "I still find it hard to believe that the writers of underwater motion pictures, television, and TV commercials do not truly understand what the underwater camera is. Simply, it is the most mobile, flexible, omni-directional piece of camera equipment ever dreamed of. It can be used more flexibly than the most expensive topside camera system. It can instantly do a dolly and boom shot while rolling and revolving. It is a helicopter-mounted camera without the need for the helicopter. It offers the cameraman, without a shadow of a doubt, the most exotic piece of equipment, limited only by the individual cameraman's technical knowledge and talents. Every time I use an underwater camera, I think of new ideas and new ways to capture simple events in a more exciting way."

Maybe when the phone rings tomorrow, someone will have a script that can make use of the underwater camera as it should be. With Jordan Klein behind the camera, the possibilities are infinite and the results will be fantastic. ■



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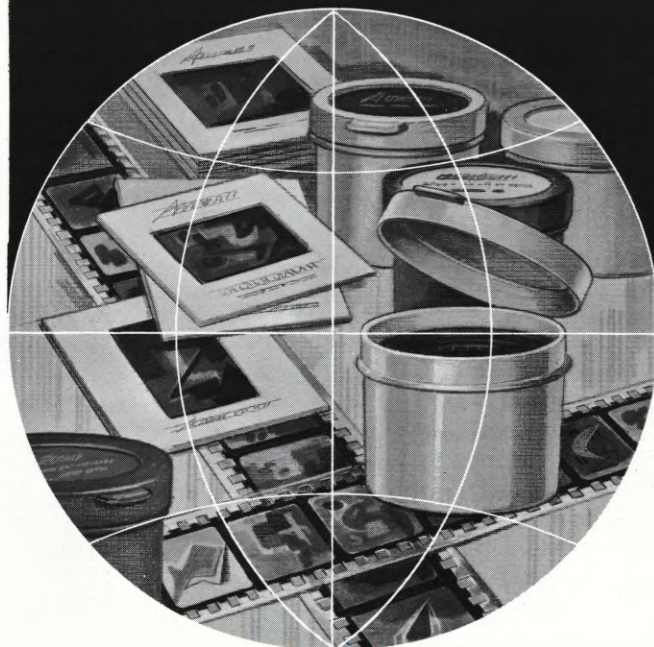
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SKYLAB ASTRONAUTS

Continued from Page 719

the means to solve the growing complex problems, and there were plenty in the "ASTRONAUT TRAINING UNDERWATER" film.

Because of the one-shot nature of the assignment, I made a quick trip to Huntsville, and the Neutral Buoyancy Simulator (referred to, from now on as the *test tank*), to learn what problems we faced, besides time constraints. The test tank proved to be five stories high, about 70 feet in diameter, with crystal-clear filtered water. The Control Center (sort of a scaled-down Cape Kennedy Mission Control) was located at the base of the tank. This was the domain of the Test Conductor.

Chief of the Simulation Branch, James Splawn, and his assistant, Charles Cooper (also a Project Tektite-aquonaut), who was in charge of the test tank operations, showed me previous training astronaut exercises on video tape. This was very important for it gave me an idea of what I would be photographing underwater. I also saw that there were a lot of safety-divers in the water in addition to the astronauts in training. Splawn and Cooper explained that the safety-divers could stay out of range of my cameras as much as they could, and still do their safety jobs.

There was a loudspeaker communications system from the Control Center to inside the test tank, so that any diver, including myself, could hear clearly any verbal directions—a fact that might astound non-divers.

We decided on bounce-lighting in the Control Center, since it was full of electronic equipment and consoles.

Luckily for color balance the room was painted an off-white. With bounce-lighting, the DP-cameraman could move about, to cover everything, as it happened, without having to move lights constantly. This type of lighting, which I really prefer, re-creates reality in the situation, and doesn't begin to look artificial.

The test tank, though indoors, had a huge fiberglass skylight for a roof, so the light level underwater was quite sufficient to permit me to use 16mm Kodak 7256-MS (ASA 64) daylight-balanced, which I use as my "film of preference" in nearly all of my underwater photography. First of all 7256 is a slightly higher-contrast film—and more contrast is a must in underwater photography. In tests, I have found the colors to be more saturated, especially reds. It also holds up well when making an internegative.

In all but extreme closeups I use *tungsten lighting* with *daylight* balanced film. First of all because water is a natural blue filter, and highlights of red are pleasing because your water background is always in shades of blue.

The only underwater problem that we had to overcome was a prohibition by the safety department of battery-powered lights in the tank, unless we could prove that the light had some provision for faulty battery protection against outgassing of hydrogen into the light-housing—which can cause explosions. This is a little-known fact even among photographers who have been diving for many years. NASA had such restrictions because of news-reports of two diver-engineers who made a homemade underwater battery light, utilizing wet-cell motorcycle batteries. The de-

vice exploded at poolside, killing one man, and maiming another. *Any* type of battery gives off hydrogen gas. Ni-cad rechargeables give off very little, but it can be enough for an explosion, if by chance, one of the ni-cad cells is faulty. We got around this NASA restriction by using a Farallon 350-watt portable battery light, which is protected by IRI-9-Catalytic elements (*Mfg. by Hydro-Catalytor, Miami, Fla.) This catalytor chemically turns any outgassed hydrogen into water.

By placing one of these catalytors into a battery-operated, motor-driven underwater camera housing, you can also protect yourself against the possibility of defective batteries inside of the housing causing an explosion. Though these explosions are rare, I personally witnessed an underwater light, ni-cad battery-powered (with no out-gassing protection) explode. Therefore, I feel that all battery-operated underwater gear, inside of housings must have catalytor protection. If any reader knows of any other way to protect against out-gassing explosions, I should be more than happy to learn of them. One of the advantages of the catalytor is the very low cost of the chemical-pellet. They are primarily used for outgassing protection in battery-operated research submarines, and naval torpedos.

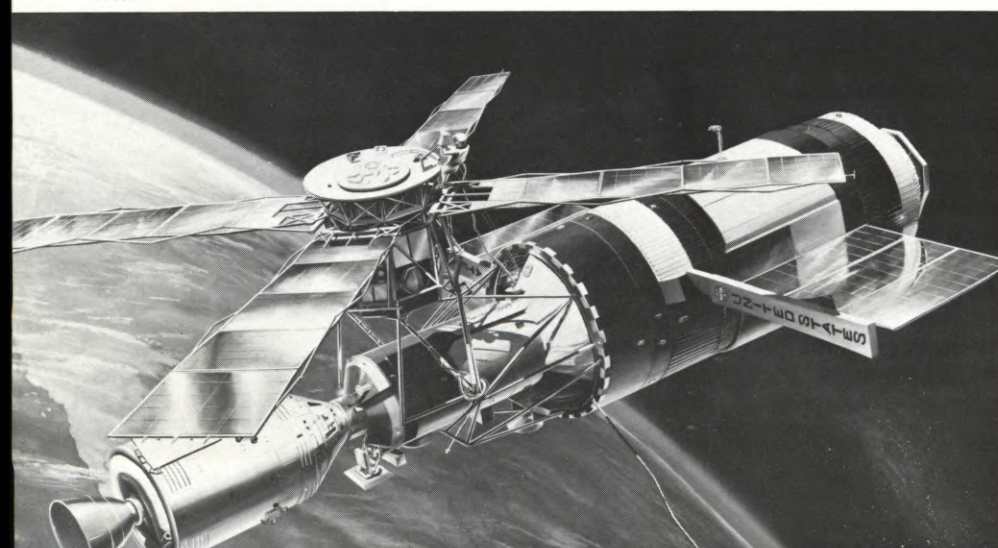
The second NASA restriction concerned the grounding of any hand-held flood light, powered by a cable going to a 110-volt surface power source. I personally own and use the Birns and Sawyer 1000-watt Seaquartz Snooper flood light. Charles Cooper, director of the test tank operations, had available for our shooting the same Birns and Sawyer floodlights, to which he had a special grounding cable attached. His grounding cable worked so well that he could lower the light, minus the watertight dome lens, into the water, short out the light, and no shock was felt by the diver holding the light itself. (He did this as a test to show me the value of the shorting-cable.) I must admit that NASA is super-careful in these matters, but I must agree with them.

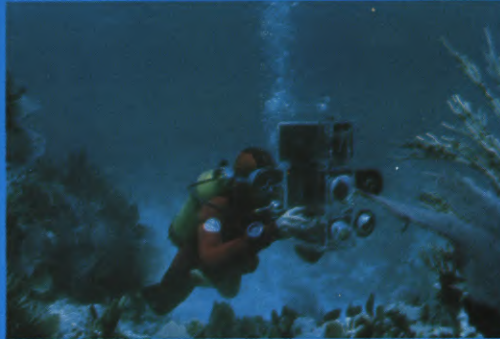
With all of the technical problems worked out, we returned to Miami, to pull our crew together and select equipment.

DP-cameraman, Larry Smith, Quasar Productions, Inc., Jacksonville, Fla. was selected to handle the non-underwater photography. John McGowan, Miami, Assistant photographer; Pauline Schulke, Miami, underwater assistant photographer; Henry Lopez, Miami, sound; and Paul Dammann, Diving assistant and underwater lighting. Cinema-

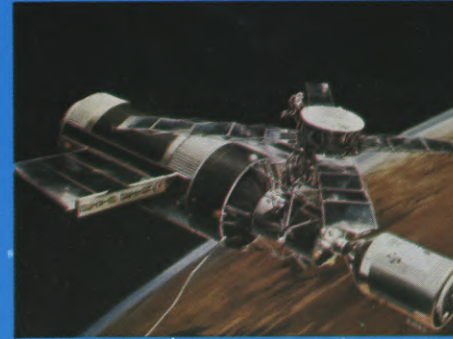
Continued on Page 773

SKYLAB CLUSTER—NASA's Skylab, a manned experimental space station scheduled for launch in 1973, circles 270 miles above the earth in this Martin Marietta Corporation illustration. Elements of the orbiting cluster are, from the left: The Apollo spacecraft, which will taxi astronaut crews between earth and space; the Multiple Docking Adapter, assembled at the Corporation's Denver division, to serve as an experiment control center and space dock; the Apollo Telescope Mount, a solar observatory for the first long-term study of the sun from outside earth's atmosphere; the Airlock Module, the doorway to space for astronauts during extravehicular activities; and the Orbital Workshop, which contains crew quarters and experiment areas.





(LEFT) The author, Flip Schulke, prepares his trusty Beaulieu R16B camera for a shooting session. (CENTER) Flip swims underwater to shoot a "dolly" shot with Beaulieu camera encased in plexiglass housing of his own design. (RIGHT) Schulke's game English-born wife, Pauline, holds the camera for him, while he scouts underwater "locations".

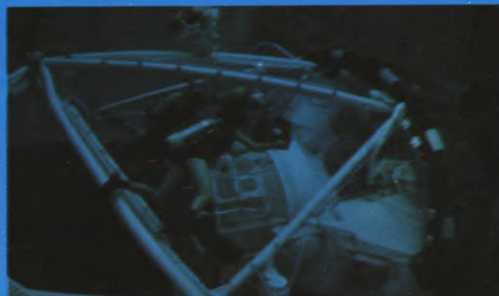


(LEFT) The solar-telescope section, part of the full-scale mock-up of the SKYLAB, inside the underwater test tank in Huntsville, Ala. (CENTER) Schulke in the test tank, with K-100 camera in a French Underwater Industries housing. Viewfinder, described in article, is on top of the housing. Note the "dome" corrector lens over the camera lens. (RIGHT) Artist's rendition of the SKYLAB in orbit above the earth, with astronaut making a "space-walk" to change the film in the solar-telescope.

(LEFT) One of the astronauts being helped down to the SKYLAB underwater mock-up to begin testing exercise. The same space suits are used underwater, with a slight modification in the breathing system, due to the pressure of the water. (CENTER) Underwater assistant, Paul Dammann, carrying the Birns & Sawyer "Snooper" 100-watt light, with SKYLAB behind him. (RIGHT) Astronaut Pete Conrad, who is the leader for the First SKYLAB mission, training underwater.



(LEFT) Pete Conrad moves about SKYLAB during Neutral Buoyancy Test. (CENTER) Flip Schulke filming near the SKYLAB with Mako-Arri housing on camera. (RIGHT) Assistant diver, sitting on top of the SKYLAB, holding the Mako-Arri housing, 400-foot-load Arri-M, 10mm lens, with flat port. There is no correction for magnification of water on this particular housing, although Mako-Arri's do have "dome" correction for such magnification.



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Continued from Page 735

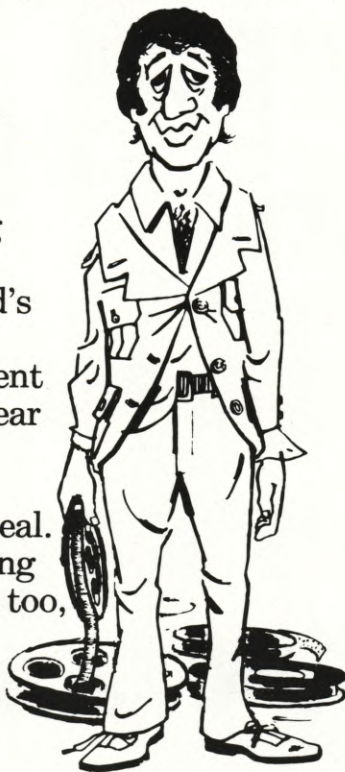
We have never advertised our studios for rent, although 30 features have been shot there. Now that we are making our own films we don't care about renting to others. I am always ready to help any nice people who want to film in Florida and would certainly invite them to this beautiful state of sunshine.

Stereo is nothing new to the theatres, but very few have it today. The biggest drawback has to be the tremendous cost of converting the theatres to show it and moving up to 70mm to shoot it. I felt that if you could record with stereo by only adding another boom man to your budget, transfer to mono or stereo on full-coat 35mm, talk a lab into adapting a printer to put two optical stripes on conventional 35mm film, design a simple inexpensive changeover to use the existing projectors in the theatres and make a sample to show it, you could turn most of the theatres into stereo as fast as records and tapes discarded the old mono sound. Maybe I'm foolish, but I bought the first stereo Nagra in our area and everything to go with it and did "THE FLYING GOSPEL" in stereo. We transferred to mono for editing to get the film in release, but we are building a 200-seat restaurant theatre to put the stereo picture in and work out the bugs. We are also building a custom ten-plate horizontal editing machine which will edit in stereo. It will run three 8 x 11 pictures and two sound tracks, all in 35mm or 16mm or any other combination, down to one picture and four sound tracks. We can project from the rear onto a screen or interlock the table with our dubbers and do a mix.

During my ten years of learning filmmaking and building, I have also designed Studios for Channel 51, one in the Bahamas, one for Hawaii (which was never built), and another that I built for someone here. Thank goodness, the film industry has finally broken open the closed doors so that people like us can participate and even make films today. I think the movie industry is soon going to start the biggest climb in making films it has ever seen and the demand will have to exceed the supply because of new markets for the product coming up. We want to be part of it and already have plans for more buildings when they are needed. I have designed an underwater studio with rear projection or a cyc underwater, with both elevating to above the water, also, but neither will be built until the need arises. Let's just hope the business keeps growing and if it does, Florida should be part of it. ■

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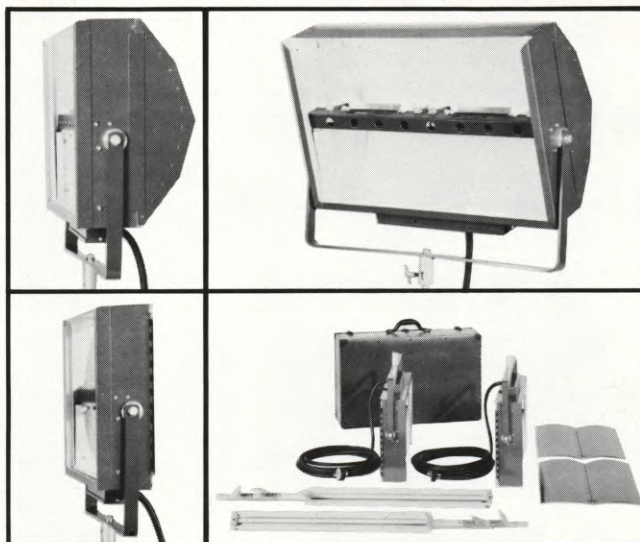
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WHAT ABOUT "ZAAT"?

By **GEORGE YARBROUGH**

United Film Productions, Orlando, Florida

Until the opening of Walt Disney World, our location in Florida was a distinct disadvantage. Only our relatives, creditors and the Internal Revenue Service knew there was an Orlando. As the major ad agencies and theatrical agents are located in larger cities, getting some of the "meaty" contracts has been difficult. We would have been out of the film business a long time ago were it not that our major client, Tupperware Home Parties, is located in Orlando and the many films we have produced for them since our beginning in 1959 were

let out directly by them and not through their New York agency.

Frankly, our sound department grew out of necessity, since our location in the early years made shipping of tape for transfer, etc., a time-consuming and frustrating experience. Further, there is a "resistance" met in some areas when you are an "outsider". This latter fact, coupled with our own lack of experience, made it difficult to get the "sound" we wanted in our finished projects. This is not an openly talked about problem in our industry, but let's

Notes on post-production techniques used for horror flick featuring a wonderful bilious-green monster

face it . . . there is a lot of "we'll show 'em" attitude, or "let 'em find out like we did" prevailing, making it very difficult for newcomers to achieve professional results in their finished product. Human nature scores again.

The only unit we do not possess for 16mm motion picture transfer and post-production work is an optical recorder. Its use and ownership for us would be impractical; however, if I had not developed an excellent working relationship with a lab that owns this equipment . . . despite the problems . . . I would have



Photographs from production of Horizon Films feature, "ZAAT" by NAT FAIN, Marineland of Florida.





obtained one in order to have control over the end result for projects we are involved in. I might add that our experience has shown that various sound services *are not uniform* (primarily because there is no "standard", per se, for mixed tracks, or even transfers) from day-to-day, even with the same material. Again this is not a wholesale condemnation, since, before we instituted our own control methods, the sound of today's transfer, when edited into a film, didn't always match the sound of the same scene when it had to be re-transferred because of damage in the editing room, sync problems, etc. This can create many headaches throughout the editing of a picture, but you aren't aware of them until you sit down for the mix . . . a costly time to find out.

I was involved in a feature motion

picture a few years back in which I was the sound mixer. After a few weeks, when the editor started joining the film together, the complaint was leveled at the "bad sound" and that such and such will have to be looped, etc. It turned out that it wasn't "bad sound"; it was "bad transfer". The tools of the sound room are very powerful, but they cannot be indiscriminately used, particularly day-to-day on the same production . . . nor can they save bad tracks. Based

One of our clients, with whom we were involved in several industrial location/post-production projects, Barton Film Company in Jacksonville, Florida, contacted me about doing the same, i.e., location sound, editing and mixing, for a low-budget horror film, "ZAAT", to be made entirely on location throughout northern Florida. He wanted the

completed project to be of as high quality as practical within the confines of the budget and insisted that 35mm photography be used.

Several years back, I had done the post-production work on another low budget horror film, "FACE OF THE PHANTOM". The photography was 35mm B&W, but we did all of the sound in 16mm. It was quite a problem using a 16/35 Moviola, the 16/35 synchronizer, etc., all because of the difference in mathematics of the two media. You'd wind up with, say 18 feet of sound and 45 feet of picture. We did it, but I wasn't about to encourage someone else to do it, particularly since I would ultimately be faced with the problem.

So, I suggested that he shoot in 35mm, as he wanted, for image quality, but have a 16mm workprint made and

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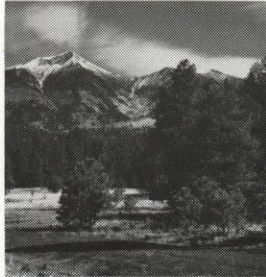
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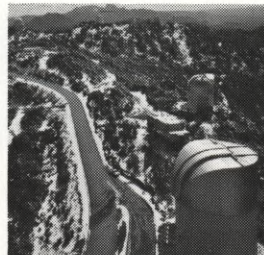
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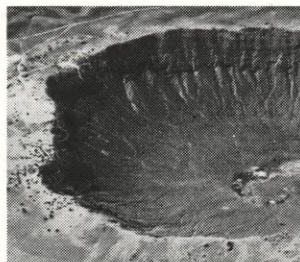
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that we work all of the post-production aspects in 16mm. His Director of Photography was agreeable to this, with the only proviso that some of the first day's work be printed in 35mm so that he could view it on a theatre screen. Once he was satisfied that the camera equipment was in good order, no further 35mm prints were made.

In the interim, since the acquisition of my own theatre in West Yellowstone, Montana, I decided to make a short subject to run in the summer which would promote the fact that we are a two-season town now. I wanted maximum screen quality but couldn't afford full 35mm and didn't want 16 blowups. Techniscope was the answer. I went about this the hard way. I had a 35mm workprint made. This I edited in rough form, then had a 16mm reduction workprint made from this. I then edited the sound rolls with the 16mm picture . . . all in 16mm, which our studio is set up for. The film will be mixed to ¼" (sync) from which a 35mm optical negative will be made. I will match the 35mm print to the 16mm and, as far as the lab is concerned, it was done in 35mm.

Frankly, all of this was done to save MONEY. To begin with, we are a 16mm operation. For a studio set up for 35mm, other than raw stock costs, it offers no real advantage; however, the raw stock savings are quite dramatic. In quantity, a 1000-foot roll of 35mm magnetic film costs about \$30. This will give you about 11 minutes of recording time. For the same \$30, you can buy 2000 feet of 16mm magnetic film, which is good for about 55 minutes of recording—five times as much. Actually, it works out better than that on routine transfers. A 35mm recorder takes longer to come up to "speed" than does a 16mm machine when making a transfer, so you waste quite a lot more tape in this operation when compared to 16mm. Since an average feature can contain as many as 700 (or more) sync scenes, this works out to about 3500 feet of waste (assuming approximately three seconds for speed) in 35mm compared to about 1300 feet in 16mm . . . this is just for sync scenes. The more transfer, the more saving.

When I made my short, it never occurred to me to have a direct 16mm reduction workprint made, rather than go the route I went. The savings here are equally dramatic—if you can find a lab that will make you a 16mm workprint at a fair price. Keep in mind that you are cutting into their profit considerably. Also keep in mind that some reduction printers cannot print the latent edge numbers that the manufactur-

er prints on the film. If this is the case, as with "ZAAT", inked edge numbers will have to be applied to both the negative and the print. While there are several methods, we chose the one that prints in 35mm feet, so that the corresponding 16mm print has the numbers every 16 frames. At any rate, this is something extra that has to be done and costs more money . . . and, more important, time.

Costwise, let's see what we are talking about in terms of a 100-minute film with a 5:1 shooting ratio. At 90' per minute, $\times 100 \text{ minutes} \times 5 = 45,000$ feet of negative. Assume you only need to workprint half of that:

$$22,500 \times .1103 = 2,481.75$$

The same amount of 16mm workprint:
 $9,000 \times .07 = 630.00$

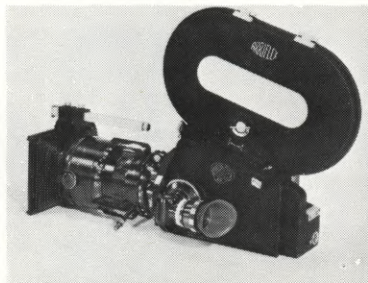
This is \$1851.75. In a low budget film, that's a few bucks. A further savings could be made by using Techniscope, as only one half the amount of the camera negative would have been used, saving about \$3,375, plus half its processing costs. The lab isn't hurt in the long run, because if it makes the prints, the only money it loses is in your original photography processing and workprinting. In some cases, these small savings might make the difference between a film being made or not being made.

Keep in mind that the reason for all of this is MONEY, and the availability of our 16mm post-production equipment. There are problems and some risk. To begin with, there is the risk of scratching the original negative in the reduction process, although any competent laboratory should have adequate safeguards against this hazard; however, the risk is there and the reshooting of an expensive scene could more than offset the savings.

Soundwise, the quality of 16mm magnetic film IS NOT the same as 35mm. To begin with, the linear speed of 16mm film is 7.2 inches per second, whereas 35mm film is 18 inches per second. This affects the frequency response, dynamic range and signal-to-noise ratio. For a simple one-to-one transfer, i.e., Nagra tape to sprocketed film (either 16 or 35mm) to optical recording (35), you could not tell which tape (16 or 35) was used. It can be measured, but the average person couldn't hear it, unless he were an expert.

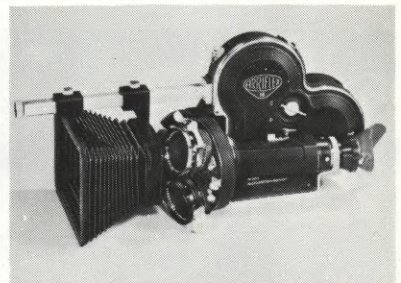
The real problem, though, is that a film is not made of just one simple transfer. Many re-recordings are used to arrive at the various dialogue, sound effect and music rolls required to mix a film. For example, you might want to create a night mood effect by having a roll of "presence" (say the actual location sound of the "night", wind, insects,

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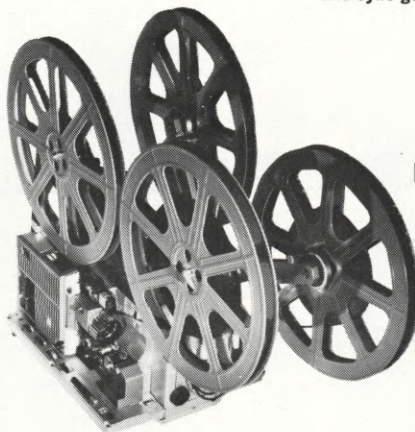
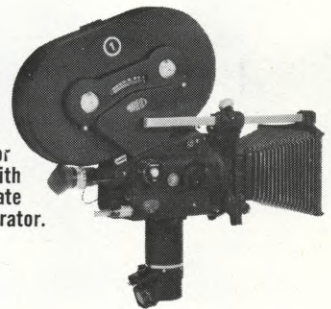
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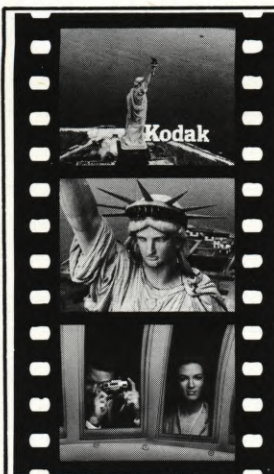
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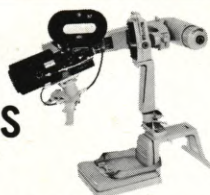
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etc.). For emphasis, you might add more crickets, then the ripple of a lake . . . a total of 3 rolls of sound just for effects.

Add the dialogue tracks, which will more than likely be equalized and compressed, then a couple of music rolls, and you could have as many as seven rolls just to mix one reel of an uncomplicated scene. This is normally no big deal, but physical laws get in the way and the background noise of the tape (hiss) begins to build up quite rapidly the more rolls you add. This can be kept under control if you have sufficient people mixing the sound to keep as many of the tracks as possible down when they are not needed. For a one-man operation, though, it has to be considered. Unfortunately, the problem is more obvious in 16mm than in 35mm.

Fortunately, the various tape manufacturers have made dramatic improvements in magnetic tapes throughout the years. Present-day 16mm magnetic film is superior to early 35mm—which means that 35mm is that much better. Anyway, it was money.

A final, and even more serious, limitation was the fact that we have only three dubbers, which meant that we could accommodate only one dialogue track, one effects track and one music track. As I was also the film's editor and post-production supervisor, it was very easy to keep in mind all of the above problems. I worked very closely with the director, Don Barton (who, fortunately, was also the film's producer) in an effort to minimize the necessity for looping, sound effects, etc.

Our studio has two ¼" recorders which are wired to synchronizers. It was a simple manner to pre-mix the effects rolls to ¼" tape (at 15 ips) and to then pre-mix the music rolls to the other ¼" recorder (also at 15 ips). [To minimize background noise, the machines were adjusted for optimum performance, using the new low-noise-high-output tape, Scotch 206. It has some print-through, but since there is rarely any period of silence in the film, this was never a problem. Print-through also builds up with storage and we mixed the whole film within hours of the pre-mix, which also helped us.]

The pre-mixes were started in sync with the picture, which, in effect, gave us a total of nine tracks. During the complicated "transformation sequence", still another two-track ¼" recorder was pressed into service. It had two pre-mixed tracks on it, so here we had the equivalent of 15 tracks . . . none of which were more than two generations away from the original recordings.

I doubt if we have done anything different from what has been done by other qualified sound men, but invaluable in this type of production are an understanding director, cinematographer and an agile and alert boom man. Our photographer, Jack McGowan, was most understanding of the budget and the sound problems. Many times, some artistic compromise was made in lighting or staging to get our microphones in position to avoid delays in post-production.

My boom man, Carl Herrmann, Jr., moved into places that defied description. His awareness of the action and alertness to inevitable deviations from the script made it possible to use every single scene. There is not one looped line of dialogue in this film.

Many sequences were shot with multiple cameras, one blimped and the other unblimped. Some scenes were shot solely with an unblimped camera, as it is easier and quicker to set up. In these cases, the scenes were shot sync and we made a cue track. Then, without the camera running, the action was immediately re-done for sound. A presence track was then made at the same time at the same level setting and using the same microphone. The cue track was used as a guide and the second track was cut to fit it. Several times we did this with dialogue and I was amazed at the lack of editing required. When there were sync problems, a section of "presence" was spliced in so that there were no dropouts in the track where the changes were made.

Some of the action was shot at Marineland Studio in Florida, in areas just out of public view. We had problems with voices, PA systems and the porpoise shows, as we could not close the facility. We recorded all of the sounds of the building, pumps, water bubbles, etc., at night, and, with the aid of a noise-suppression amplifier, we were able to use the original track, with the additional effects used to "mask" the gating or chopping effect of the amplifier. In several scenes, when using the unblimped Arriflex, we just recorded the sound of the camera and made a loop out of it so that it was in every scene. With all of the other noises, it just sounds (to a non film-maker) like another "noise".

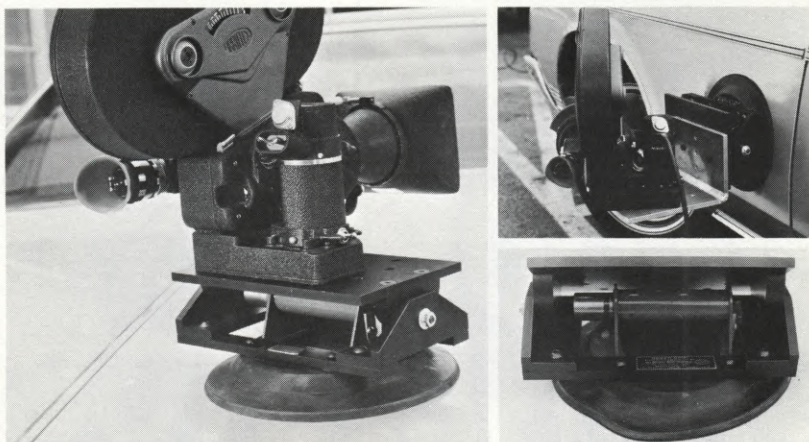
Some of the noises we used were unusual. Most noticeable are the "fish" sounds. Our thanks go to the Underwater Sound Laboratory (located in Orlando) of the U.S. Navy, which gave us a most unusual tape of various underwater sounds. It is a small sample of the actual underwater noises used to

Continued on Page 748

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PRODUCTION OF "CATCH THE BLACK SUNSHINE"

Continued from Page 689

(c) *BOSUN'S CHAIR*—My "secret weapon" was this old sailing ship contraption which allowed me to "dolly" over dry land, through mud and swamp, then over a body of water and up onto dry land on the other side, all in one shot. Complicating matters was a dense tree growth on both sides of the stream. A friend of mine and I conceived this application of the old mariner's rig in order to allow my cameraman to ride alongside the actors as they trudged through the varying terrains. We ended up with about ten men running this rig, as we had stabilizing wires and ropes extending from every corner of the basket, and we needed "horsepower", as well, on the block and tackle. It was quite a sight—a dozen people running this one little cameraman across the swamp.

(d) *MISCELLANEOUS DOLLYS*—We used ancient Indian dugout canoes, airboats and the usual camera car for other dolly shots. Not one time, however, did we use a conventional dolly, because the various rough areas we were working in made it next to impossible to transport and set up such equipment. We had to use four-wheel-drive vehicles and often these were stuck in the mud and we ended up with bulldozers and bombadiers pulling us out and transporting us to and from locations.

A bombardier is a full-tracked vehicle that can move right across a swamp area. It's actually a Canadian snow-cat with extremely wide treads. It looks like a big full-treaded tank, but the weight distribution is such that it just doesn't weigh that much per cubic inch on the tread. In fact, you can put a man down in the sand and run right over him with this vehicle and not hurt him.

We also used swamp buggies and a special rig developed for the swamp oilfields in Texas and Louisiana called a Rollagon. This vehicle looks like three great big drums with a cab sitting up on top of them. These drums are the "wheels" and they roll around—but they also float. The drums have a treading-type weave on them, like big tires, but they are basically drums. The Rollagon is one of the weirdest-looking machines you can imagine.

The weirdest of all, though, was the Gully Womper. It's about two stories high, with huge tractor wheels. From the tractor wheels runs a tread that comes down to three or four more wheels, and there are other wheels up front. It's strictly a homemade contrap-

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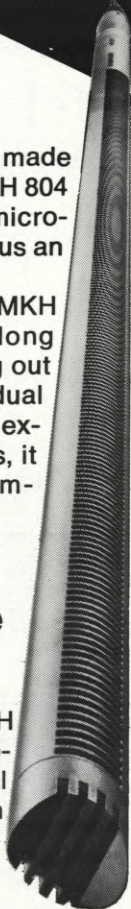
The MKH 815. A "Star" before it was born.

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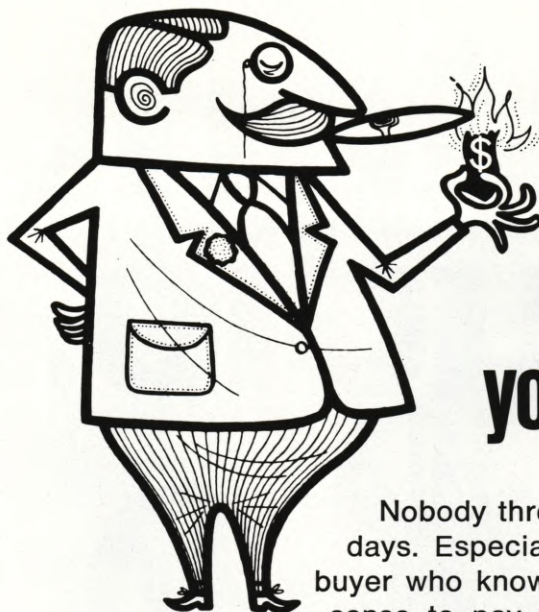


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tion and we got it from this fellow—a real redneck swamp guy who has an airboat and keeps pet raccoons and goes barefooted all the time—one of those real ethnic types. He had this big Gully Womper, which is literally two stories high and will hold about 25 people and he got us into many of the otherwise inaccessible areas. This vehicle only moved about eight miles an hour, but you couldn't really go any faster because you were rolling over Cypress trees that had fallen down. You'd literally ride right over these things and through two feet of mud. The really interesting shots we got were with the Gully Womper, and it could carry our whole crew—20 people.

3. A LIGHTNING STORM IN THE CENTER OF THE SWAMP—Here we really needed big arcs and generators to achieve the flash effect of lightning. Our problem was that the stilt house we had to build for the story was in the center of the swamp. Generators and power lines couldn't get to it and, if they had been able to, we probably would have had some mass electrocutions in the water, as there was no dry land nearby. The stilt house had to be built in the wilderness, however, because its visualization in terms of the story line was more important than making things easy for ourselves technically. Our solution was to rig 16-foot poles with long lines of flashbulbs. We set up the poles at various places around the house and ran all wires to a master control (12-volt batteries were our power source), as the wind machines whirled and the building was engulfed in fire. At various intervals, hundreds of the large flashbulbs would explode at once in several series. We experimented repeatedly on film with various methods of controlling the bulbs so that the effect would most closely approximate that of real lightning. The bulbs were the very large "house-socket" size, which are rather expensive, and we consumed one whole truckload of these flashbulbs—I mean, cases and cases. Unfortunately, we had more than one lightning sequence in the film. We were, however, helped occasionally by Mother Nature and often in the film what you see is the real thing and not our "artificial lightning".

4. THE HURRICANE—I needed to have three of the film's leading characters caught up in a hurricane. Closeups of this kind of action are relatively easy to produce—especially for Hollywood. But wide shots of the whole countryside? At 7:28 a.m., as the center of Hurricane Agnes hit the beach between Pensacola and Apalachicola, Florida, my crew and actors made their way along



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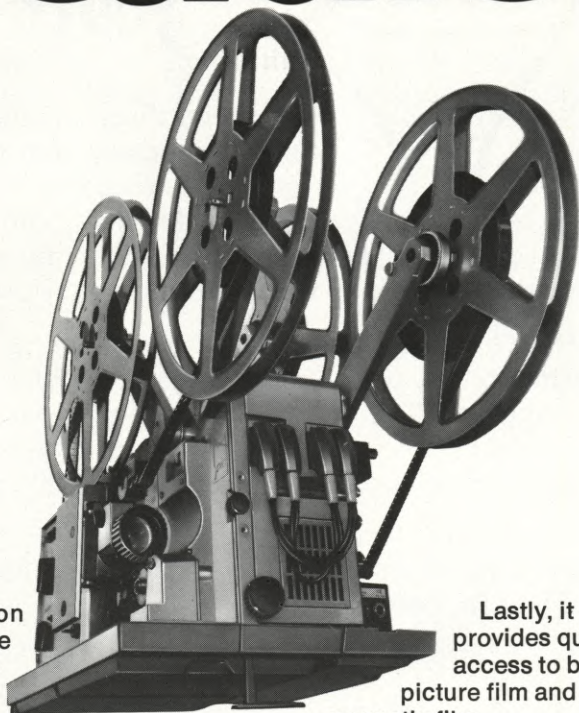
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that surf and we got the real thing. We started early that morning on an island in the Gulf of Mexico, due south of Pensacola. The local authorities had ordered us to leave, although many were awaiting the Governor's order to evacuate the island. Usually, when a hurricane hits that area, the island goes under water and there are only two exit bridges on the entire island, both of which become inoperative in deep water.

Some of the buildings we used as locations required a bit of fixing up. The 1859 saloon inside of which we played a lengthy sequence is an old historical building which has since been taken over by the state of Florida, as a result of our working there and all the publicity in the local papers. They finally realized that they'd better do something with it before the vandals tore it down.

It's a log cabin hand-built by one man and we had to go in and do all the chinking and painting to age it, because it was just white concrete. We redid the floor and tore out the ceiling so that the rafters would show. The walls were there, but we built all the tables and the bar and all of the other props.

That cabin was literally way out in the wilderness, but I found so many other locations nearby that we stayed for six weeks working around that saloon and then started moving out to all of our other locations in the state. But we got a tremendous lot done in the vicinity of that one place.

The stilt house—which we had to build out over the swamp—presented some unique problems. It, too, was located in a very remote wilderness area. I had done some location scouting previously and had found some old existing hunters' cabins, but by the time we got around to shooting, a fire had come through the area and there were no more existing hunters' cabins. This presented a major budget problem and a major everything.

There were serious doubts that we could get anybody to come way out there in the swamp and build the stilt house, but we started calling around to various pile-driving companies and we found one, fortunately, that wasn't too big to take on such a small job. The job sounded interesting to them, so they brought their little barge out and launched it in the swamp. The barge was only about 10 x 7 feet, but it took three men to run it and these guys get a fortune for their work. They had to drive 4 x 4 solid mahogany stilts down into the mud to serve as a foundation for us to build the cabin. During the



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shooting of the story, of course, the cabin got blown up and destroyed by fire.

The closest town to most of our locations was Boca Raton, north of Ft. Lauderdale, and that was the farthest we had to drive. For the shooting of the stilt house we had only three days and we couldn't find anyplace within driving distance where we could stay. We tried everything, but we couldn't get a deal with a hotel. So we got eight or nine trailers and set up camp right in the wilderness.

The action in "CATCH THE BLACK SUNSHINE" is very physically demanding, especially since it all takes place in swamp and "jungle" areas. I got my "survival" training for the project from the man who trains the trainers of the Green Berets. He ended up playing a part in the film.

My cast and crew came from all over the United States. Most of the actors came from Florida, but the two leads were brought in from California. The Director of Photography, Tom Spalding, is from Louisville and I met him about three years ago when I did a religious feature with him in Florida. Some of the crew members came from Chicago, my key grip was from Hollywood and my first assistant was out of New York. The rest were basically from Florida. I would have used more Florida people if there had been any available, but "THE MASTER" and "LIMBO" and two or three other projects were shooting there at the time and all of the good local people were busy.

I had originally scheduled an eight-week shoot for the picture, but then I took a look at the money I had available and said "Well, fellas, six weeks." However, it proved to be impossible to shoot all of that tricky stuff in those rough locations in just six weeks. We ended up with nine weeks of principal photography and seven or eight days of pick-up.

I learned a lot in making "CATCH THE BLACK SUNSHINE" and, at this writing, we're getting ready for the mix and the final post-production. Meanwhile, I have another script that I've been working on. It's a modern, high-adventure piece that takes place in Florida and the Bahamas. It's a spy story, with a little bit of Mafia, a little bit of political intrigue, a lot of mystery and a chase. I'll probably direct it and act in it, but I'll never *produce*, direct and act again in the same picture. Nor will I do the other things I had to do, such as supervising the editing. I only did them this time because of our low budget. But it's too much for any one man to do.

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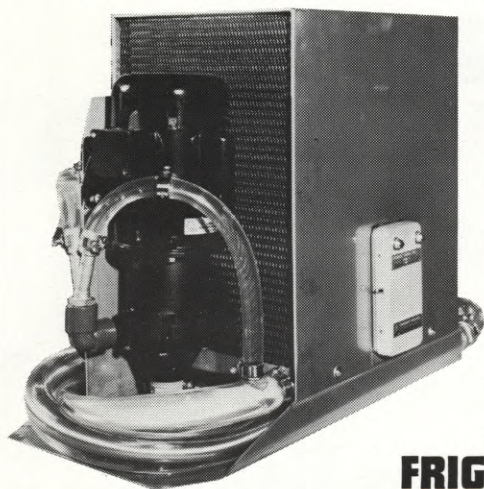
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"ONE-MAN-BAND"

Continued from Page 721

and mixing. His editing room has two editing banks. When the film is in the work-print stage, the set-up allows him to choose scenes quickly. "Editing is a slow process," he says, "and sometimes you feel a kind of urgency to get to the next scene, to hook it in and see if it will work."

Floethe avoids using canned sound effects. He always carries his Nagra on location to pick up natural sound. He also avoids using canned music, preferring to work with local instrumentalists and, in the case of one film, commissioning original music by composer Eric Von Schmidt.

The one point where the one-man-band has to relinquish total control of his film is at the door of the processing lab. Floethe confesses there's agony attached to this phase. "You just send the film out and pray to God they don't blow it. You worry about scratches, you worry about static electricity and you wonder if you had to shoot a scene over again, could you do it as well the second time around."

Floethe has some definite views on the quality of children's films. He feels many fail because they tend to talk down to children. "I let the kids carry the message on the screen in such a way that the child viewer thinks, 'Gee that kid's talking to me'."

He's also critical of hard-hitting films for children, especially the *rat-tat-tat* of images and sounds type. He prefers a softer approach and tries to make the message of the film simple and direct.

The physical labor that goes into a film, the hauling and the setting up is rarely mentioned as an artistic expression in itself, but Ron Floethe sees it differently. To him, every facet of film making is part of the total artistic process. As he puts it: "What's the sense of carrying all those lights and setting up all that gear if it is just a physical grind?" ■

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SKYLAB ASTRONAUTS

Continued from Page 758

Sound, Miami would do the post-production transfer work, and Oscar Barber, editing and laying in the sound, Cinetorial, Ft. Lauderdale, Florida. Capitol did the lab work.

The surface photography was shot on a 16mm Arri-BL, with 12-120 zoom lens and a 5.9mm Tega, using Kodak 7252 for interviews of the astronauts in their suit-dressing room, and before entering the test tank—at the top of the tank. Kodak 7242 was used inside the control room, because we wanted to use diffused bounce-light. Henry Lopez used a Nagra IV recorder, Larry decided on two Mickey-Moles and two Mighty-Moles. Dichroic filters were used on the Mighty-Moles, for fill, when shooting under the skylight at the top of the test tank, prior to the entry into the water of the astronauts.

Underwater I used a 16mm K-100 with a 5.7mm Angenieux lens, in a French Underwater Industries housing, with a corrected optics "dome" corrector of my own design. This enables me to get the same angle of view underwater that the 5.7mm gets in surface photography. For close-ups, tightly framed shots, long-shots that moved into close-up shots, a 16mm Arri-M was used in a Mako 400-foot magazine underwater housing. The Mako-Arri housing utilized a 10mm Angenieux lens, in a flat-port. It is possible with the Mako-Arri housing to view, with great clarity, directly through the normal Arri-reflex-prism viewing system. This is a great advantage in framing and focusing, especially in close-ups. Since we cannot change lenses underwater, and need a separate housing for each lens, I usually concentrate my energies on utilizing the fully corrected 5.7mm wide-angle, for long and medium shots—it really worked well on the SKYLAB, since the mock-up of the actual SKYLAB, full scale, rested inside of the test tank, almost 70 feet in length. For that, underwater, you *need* a wide lens. Also, the closer you get to a subject UW, the better the color is.

The 10mm is the other mainstay for close-ups, since it can be focused. The closer one gets to the subject underwater, the less "blue-filter" effect one gets, and the better your fill-light shows up in re-creating the actual colors of the objects being photographed. Because we are photographing in a sort of unreal world to the viewer, the distortion usually associated with wide, and extreme wide angle lenses almost never seems objectionable. As I mentioned before, all underwater footage was shot

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Because we were working inside the test-tank, under controlled conditions, the 100-foot load of the K-100 was not a hindrance, for I could be shooting with the Mako-Arri, when the K-100 was being loaded. But the prime reason for using the K-100 on this job was its very small size. With it I can swim into cramped quarters, and easily maneuver it very close to the astronauts—by just extending it with one hand out in front of me, without getting my body in the astronauts' way—as they went through their training exercises.

The choice of a 100-foot load underwater camera rather than a 200-foot load, or 400-foot load is mainly regulated by the underwater shooting conditions, and objectives of the cameraman.

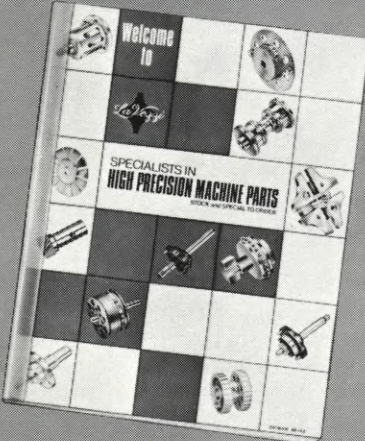
I use an optical viewfinder, with the K-100, co-designed by Jordan Klein of Mako, and myself. It is a large circular viewfinder, giving a 180-degree angle of view in a circular image, on a 3-inch magnifying lens. I have various "frames" corresponding to my lenses, that fit over the viewfinder, so that one can see 180 degrees in all directions. Thus, one can anticipate and follow the action coming into the viewfinder-lens frame, all without taking one's mask away from the viewfinder. I also have parallax correction for the finder, which sits above the lens, on top of the K-100 housing. The same viewfinder is also attached to the Mako-Arri, to be used as a "sports" finder, when it isn't practical to use direct-prism viewing. Only by utilizing accurate optical UW viewfinders can one accurately compose and fill the 16mm frame. Exposure is taken with a Seconic-marine-meter, attached to each housing—located near the viewfinder. Exposure varies as one goes deeper or higher in the water, and the F-stop is changed during filming, by the operator, flying by the seat of his pants, with a little help from prior experience.

If underwater camera gear sounds quite antique at times, it isn't because housings couldn't be made to utilize all of the latest features of surface cameras, such as: automatic exposure control, radio-crystal sync, etc. The problem, so far, is that the market demand is just too small to manufacture housings, and test them, for each new camera innovation. Hopefully, as underwater photography increases, so will the manufacture of the necessary gear to do a better job.

One of the major requests of NASA was to film sync-sound of the Test Conductor, in the Control Center, speaking to an astronaut, and the astronaut's replies. All thoughts of radio-crystal sync had to be abandoned because such equipment cannot be rented

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for underwater work, already mounted in a housing. Nor did our budget permit us to build our own such rig.

Our solution: Larry Smith and his surface crew filmed, in sync, with the Arri-BL and Nagra inside the Control Center, while I filmed underwater. The Nagra was plugged directly into the audio circuit between the Test Conductor and the training astronauts underwater. I would be notified over the underwater loudspeaker when Larry was filming, and at that point I would also film the astronaut's actions. I discovered that it was nearly impossible to see the moving lips of the astronauts through their space-helmets, due to the small radio mike in front of their lips. Therefore, we could then, in post production, lay in the dialogue, matching the Arri-BL sync-film, and sync-sound to my silent footage. The editor then could cut back and forth from the Control Center to the Astronauts, and the sound "synced up" with the UW footage.

I had a numbering system (a bunch of house-numbers bought from a local hardware store—on a ring). I would hold up the next consecutive number for each take, in front of my UW housing, before shooting. In this way we could more easily match up takes, since I was shooting with two cameras. A word to the wise: buy house numbers that are painted. The ones I got were actually plastic glued on metal, and after a while, the numbers began to loosen from the metal and float away—I kept thinking, "a great idea—gone wrong".

This double-shooting, double-syncing was a real problem, but, luckily I could view the whole action, on the video tape, after the training session was over. I could actually see myself on the TV screen, filming, and could make notes for the film editor, Oscar Barber, to help in laying in the sound to my underwater footage. The whole procedure was primitive, but in the end, *it worked*—which is the name of the game.

My wife, Pauline, an English import to the USA, dives with me, handles still cameras, swims patiently with the UW housing that I am not using at that point, and helps underwater assistant Paul Dammann with the lighting. I have some pretty strong feelings about some things, and lighting underwater is one of them. I am totally opposed to mounting lights onto the camera housing. The light is flat and untrue, but mainly it destroys the beautiful effects of swimming in and out with the camera up and back from the subject. My assistant diver, and Pauline hold the lights off to a 45-degree angle, or perhaps from above, or the side, depending on the subject matter. They remain at a fixed

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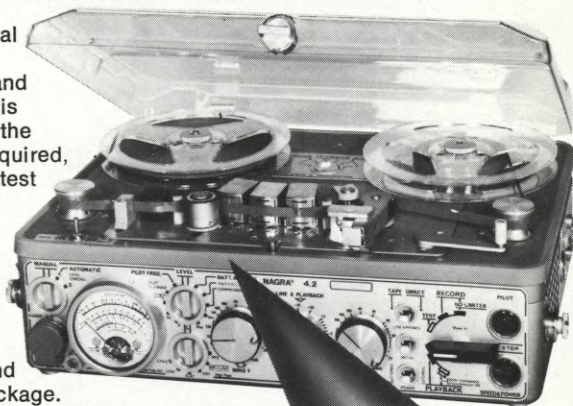
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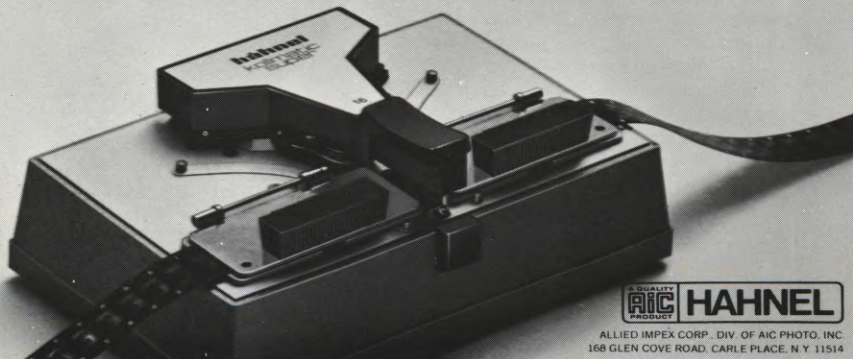
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distance from the subject, enabling me to get an accurate meter reading from their lights relative to the subject, and thereby freeing me and my camera to roam at will in and out, up and down from the subject, and my exposure, or F-stop can remain constant. Mounted lights on the camera housing also makes one much more immobile.

Besides handling the cameras and lights, Pauline generally lends a high-class tone to our assignments. One of the Apollo moon mission astronauts, Rusty Schweickert, now a member of the SKYLAB project, jumped into the test tank and spotted Pauline nearby. The next thing I heard him say over his microphone to the Test Conductor; "Say, the scenery down here is getting much better, there seems to be a mermaid swimming around. You guys sure try *everything* to keep us happy during a training mission."

Our major coverage was on the prime crew for the first SKYLAB launch, which will be for a period of 30 days: Charles "Pete" Conrad, Jr, who has flown on Gemini 5 and 11, and Apollo 12—the second manned lunar landing—a total of 506 hours of space flight; Dr. Joseph P. Kerwin, a commander in the U.S. Navy Medical Corps; and Paul J. Weitz, an aeronautical engineer—both flying into space for the first time. Cameraman Larry Smith shot over 8000 feet of sync interviews and suiting up procedures with these prime astronauts.

SKYLAB is an experimental manned space laboratory for conducting scientific, technical and bio-medical investigations from the vantage point of *earth orbit*. In addition to earth resources experiments, SKYLAB will permit astronomy observations from outside the earth's dense atmosphere and life science studies that will further evaluate man's capabilities in space. The SKYLAB is launched into earth-orbit by an Apollo moon rocket (Saturn-5). 24 hours after the first launch, the launch of the crew, in a Saturn 1B rocket takes place. The crew's space-ship rendezvous with the SKYLAB, docks, and the crew enters the SKYLAB, to live and work there. Altogether there are three missions scheduled for SKYLAB.

Though the astronauts work in a shirt-sleeve atmosphere inside the SKYLAB's Orbital Workshop, the greatest majority of the time, two of the crew, Conrad, and Kerwin, must make a "space-walk" to change the film magazines located in the Multiple Docking Adapter, which also houses the solar telescope, and earth resources experiments cameras. These cameras cannot have their film changed except from the

outside; thereby necessitating a "space-walk" to fulfill this function.

The large film cassettes must be transported about 30 feet from the air-lock area, to the end of the Solar Telescope, plus two other camera positions located on the solar Telescope mount.

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It is in practicing these complicated "space-walks" with the problems of handling the large film cassettes that the simulated "weightless" training sessions are held underwater in the test tank. The one thing that astronauts and aquanauts have in common is the floating sensation of weightlessness.

I can say with great confidence, that I shall never experience the weightlessness of outer space, but filming the astronauts in space-training—underwater—has brought me the closest I can get to it.

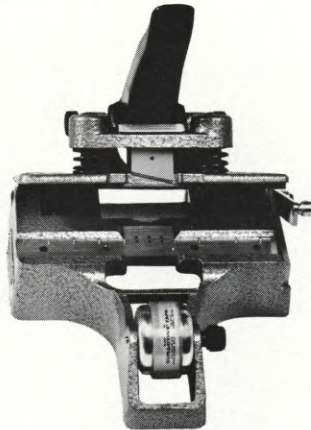
There are some advantages for an underwater specialist working out of Florida—this was one of them. ■

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ON LOCATION WITH "COUNTRY BLUE"

Continued from Page 730

crew going under that blistering Georgia sun. They kept moving from set-up to set-up at incredible speed in that crowded, dusty pit. The race cars, drivers and mechanics, as well as the spectators, added to the authenticity, but the extras had a habit of laughing at the funny dialogue of veteran character actor Dub Taylor, and looking into the camera and wandering around, making it especially tough to maintain continuity. Somehow, in spite of all this, they finished and got good coverage.

In addition to the sequence in the pit area, racing footage was needed. At 7:00 p.m., two special ten-lap races were staged to get it. Emmett explained, "We set up the races. They were actual heats where we put up the purse."

Each race had about 15 cars which, on that tiny oval, insured plenty of action. Emmett placed the BNCR on the crane to catch the cars as they raced around the last turn and down the main straightaway. Bill Waldman, the assistant cameraman, used the 35mm Arriflex to pick up the race and shoot inserts, from ground level. A 16mm Bolex was used as a roving camera in the stands to pick up crowd shots and other cutaway material (to be blown-up to 35mm later, if needed).

I stationed myself on top of a nearby truck and watched Emmett record the action. With Waldman shooting elsewhere, Emmett had Suzanne Wiscaver, normally property mistress and slate girl, act as assistant cameraman, or rather "camerawoman."

It was well past dark when we left the choking dust, oppressive heat and deafening noise of that speedway. It was almost 11 p.m. when we finally got back to Tallahassee and had a chance to wash off the grime.

The next evening I had a chance to ask Emmett about using Suzanne on the camera boom. He told me: "She was mainly concerned with setting my stops, setting my focus and zooming the lens when we needed to zoom. And, one other thing, she is light and was able to swing around the seat when we made those fast pans. With Bill Waldman, the regular assistant, the crane operator has to use more weight and it makes the boom harder to swing and adds momentum. There's a difference in weight of about 50 or 60 pounds between the two of them."

There was a large ratio of women to men on the crew of 15, one-third to be exact. In addition to Suzanne, there were four others: Ginger Kathrens,

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sound assistant and production supervisor; Cassandra Conrad, script supervisor and assistant editor; Pam Brown and Joan Day, production assistants (a catch-all title for the two girls who handled everything from still photography to serving lunch).

Later that same evening Jack and I talked about his visual and directorial style: "What I'm striving for, in this film, is a high degree of reality and what it's like to live in the remote sections of this country. There'll be a certain amount of violence in it because these people tend to be violent. I think part of it is that you're out in the heat all day and then you're cooped up in a little-bitty house at night and you're not making much money. Certainly that's going to come out in the form of violence.

"It's tough to do chase scenes and race scenes without special equipment. We've had to be very inventive. We did tracking shots going down the highway with the Arriflex mounted on baby legs in back of a station wagon. I think we've gotten a lot of exciting scenes but we've really had to use our imagination.

"Emmett's lighting gives you kind of a documentary or realistic effect and I like that. I think what we're going to achieve is a kind of slick, crafted documentary look. It is slick and professional, yet will have a 'real' look about it."

Alston was using quartz lamps throughout. Emmett said, "We only have about 20% interiors on this film and we needed portable equipment. I like stage lamps better but you really can't haul those things around as easily. You don't have as ideal control of your light with quartz but you can sure save time."

Emmett's light package was spartan but, he felt, adequate. He used two Mighty-Moles, a double broad, a Lowell light kit, a five-lite kit, a Sun-Gun and various photofloods and reflectors.

"This is the first time I've used pin cables. They're lighter weight and you have just as much cable. It doesn't carry as much amperage but enough for all the lamps that I have. We can tie into a main and hook up much quicker. Most of our interior locations have enough power, but I have a generator available if I need it."

Although he had a set of fixed lenses, Emmett had been using the 20-to-1 Angenieux zoom lens exclusively. He said, "You can do the entire picture with that lens. We have a lot of boom shots and moving camera in this film, which I like. With the Angenieux on the camera, we can pan, boom and zoom at the same time. It's fluid motion and gives a visual rhythm and flow and picks

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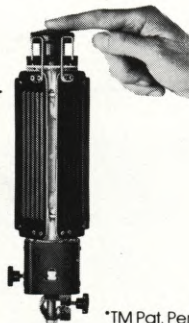
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up the pace of the film. This is an action film, so the camera has to move. You shouldn't be afraid of using a zoom for *this* kind of film."

With Jack Conrad required to be both in front of and behind the camera at the same time, I knew that he was depending on his Director of Photography more than ever.

Jack said, "I get the basic angle and movement set-up with him and explain what I want out of the scene photographically and then get with the actors and let Emmett make suggestions and advise me on how that's working or what isn't working about it. I have a lot of trust and faith in him.

"I had anticipated using a double for the blocking but that just doesn't work. It's very difficult for me to get the timing of the blocking with a double. I have to do it myself, and trust Emmett to work it out. There has to be a lot of communication, otherwise I just couldn't pull it off."

Emmett said it more simply. "We discuss our shots and we know roughly what we need to do." And in the next few days I saw more fully how this applied. Jack and Emmett would rough in their entire shot sequence and after that, very little was said, because everyone knew what had to be done. There was little left to do but get it on film.

A metal shanty on a Tallahassee back street, which housed a small auto repair shop, became the set for the crew's first interior location. It was perfect! Junked parts stacked into every corner, grease ground into the desk, work tables, walls and the coffee machine and an overabundance of general "clutter," all added up to a set that would have been very hard to duplicate on a sound stage.

It obviously was exactly what Jack wanted. All interiors for this film were to be done on location because, as Jack had said earlier, "It gets exactly what I want as a writer and director. As an actor it gives you an awful lot to work with, and I think it helps photographically. In fact, anything we say or show—there's a reason for it. It portrays people as they really are."

The garage was narrow and dark, with the main light source being the double doors in front. Inside three cars, actually being repaired at the time, were crammed in, adding to the incredible problems Emmett faced on this set.

He described the situation: "It was a cluttered garage and you couldn't put your lights in the places you wanted to put them. Half the garage door was open and let in daylight, so I used dichroics to balance the light and gelled the windows. But, the biggest problem of all was getting adequate power. At

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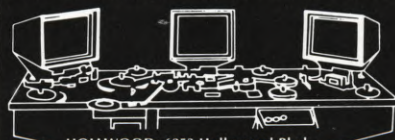
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first we couldn't get enough amperage and then we blew a couple of fuses, but we finally got it all straightened out and got our lights on."

A little country store was the second location interior they faced. The only public entrance was the single front door, so narrow that the crab dolly had to be tipped over on its side to get it through. It was set-up between the bread rack on one side and the fishing tackle on the other. Perhaps the only real advantage Emmett had here was the line of fishing caps and gasoline cans that hung on a clothesline overhead. He managed to use these effectively to conceal his lights.

During the morning, that little store did quite a business, and so, on top of the technical problems, there was the problem of the customers who came streaming in and out while the actors were trying to rehearse. They finally shot the scene after lunch, by regulating the customers so that the store did its business only between takes.

A low-ceilinged rural night club, on the out-skirts of Tallahassee, provided a test, not only of Emmett's lighting ingenuity, but of the crew's endurance. The club was extremely dark and offered Emmett no lighting help. Jack's blocking, basically along a two-line axis, helped, but it still took almost every light Emmett had.

With the lights on, the club took on the atmosphere of a crowded sauna. And there was nothing the crew could do but sweat!

In fact, every place we went the heat and humidity ganged up to drain our vitality. Yet the crew kept going and stayed right on schedule. A remarkable achievement, but then, I think it was a remarkable crew, especially when you consider that a large percentage of them had never worked on a feature before.

Veteran character actor Dub Taylor, who's been working in motion pictures since 1937, was totally involved with the production. Even when not working, he was frequently on the set, where he added his Georgia background and knowledge of the area to the characters portrayed in "COUNTRY BLUE". Jack said of Dub, "He's been an asset, not only as an actor, but also as a commentator on what we're doing and trying to bring out in the film."

And as Dub said, "I've never been so happy working in a show and working around all these young guys with new ideas like Jack Conrad has."

Dub was impressed and shortly before I left, he commented on the speed and proficiency which this crew had displayed. He said, "I don't see how they do it, but they really move." ■

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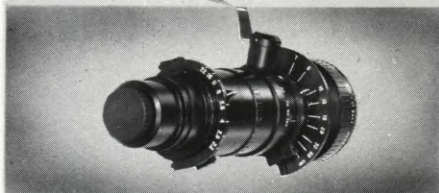
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UNDERWATER FILMING OF "TREASURE GALLEON"

Continued from Page 710

Florida recording some of the worst weather in half a century, including its first significant snowfall. It didn't snow in the Keys but that's about all it didn't do.

We got all our dry land shooting out of the way in the first two weeks of a four-week shooting schedule and all the topside boat scenes in the remainder. Still we had no significant break in the water conditions to film the elaborate underwater sequences.

Due to the fact that Tom Gurr has been on the wreck of the San Jose for nearly five years, we are re-creating many of the high points of the salvage. One excellent scene has gold coins pouring out of the top of the airlift and raining down on the divers below. The airlift is like an underwater vacuum cleaner which sucks the sand off buried objects, and in this case, the objects themselves.

Another scene where, Tom's son Keith was following a trail of gold coins deep under the bottom of the ship and scooping them out to one of the bigger divers who didn't fit in the narrow space, was staged for the cameras. One of the big sequences of the film is where John gets trapped in a fall of large timbers from the sunken galleon, "breaking" his leg. This was successfully filmed during one of the rare breaks in the weather. John's trip to the hospital provides a romantic interlude in the film when he meets a pretty nurse, played by Judy Patterson, a Keys resident with considerable acting experience.

During the filming operation Tom tried the best he could to continue his daily salvage work. On one of these days when he was "blowing" a hole with his prop deflector, Director Coggan couldn't resist going over the side to see what was being uncovered. He came rushing to the surface looking for me to film his first find, a silver and copper "Ballaster" used for rationing out beer and grog to the long-dead sailors. I was in a cloud of sand and silt having trouble finding the bottom. The prop deflector on "El Capitan" fits over the propeller and directs the prop-wash straight down to the bottom to dig holes around the wreck to expose treasure and artifacts. I had been down-current when he started it and got lost. Coggan's find made the local paper, even if it missed being in the film.

Our equipment for this film which, is being shot in 16mm Eastman ECO 7252 and blown up to 35mm at H & H Color



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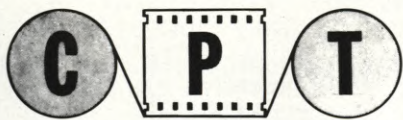
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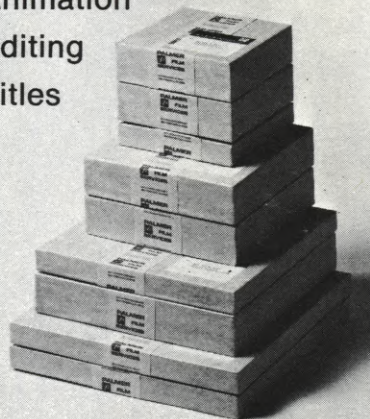
Labs in Tampa, consists of an Eclair NPR with 12-120mm Angenieux zoom lens and an Arri "M" with 10, 16 and 25mm Schneiders. Sound is being covered, both sync and wild, with a Nagra III and various microphones, including a Sennheiser MKH 804 "shotgun" and a specially created underwater mike.

We have three underwater cameras, a Bolex H-16 with a 10mm Switar in Bolex housing, an Arri "S", equipped with a 10mm Schneider in a Mako housing with reflex viewing, and the new DBM 9-1 self-contained underwater camera manufactured by Teledyne Camera Systems. The DBM proved to be all Fred Rodgers, the Sales Manager, said it was. The camera is small, it's weight underwater is adjustable, it has a 400-foot film capacity, variable speeds, variable shutter, easy to read and set controls and, best of all, the widest-angle lens I have ever used underwater. The camera comes equipped with a 6.6mm Leitz lens. The lenses are interchangeable with two others available. Most cameras, including the two back-up cameras of ours, are standard cameras in watertight cases with the lens "seeing" out of a flat port. The air-to-water refraction changes the effective focal length of a 10mm lens to a 13.3mm and changes the field of coverage from 65 degrees to 51 degrees. This necessitates moving back to cover a given area. This increases the amount of water between camera and subject which, even in clear water, reduces image clarity. In slightly murky water, always encountered during digging operations, the few feet of water can make the difference between a really good picture and one that is unacceptable. The 6.6mm Leitz lens has its front element in contact with the water, completely eliminating the underwater distortion inherent in any other system, and provides a 76-degree field of coverage. This tremendous coverage allowed us to get to within four feet of a diver and include his entire body. Film shot with the DBM on good days was the clearest I have ever seen, and on less than perfect days we still got excellent quality material that would have been impossible with any other camera.

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is completely absent at depths over 30 feet and other warm colors diminish rapidly, so that at our work depth, the scenes come out predominantly blue-green, but we were using yellow and blue Scuba Tanks and weight belts which photographed with good color.

Skin tones, of course, come out with a blue-green cast, but, we feel, look on film exactly as they do to fellow divers and give a much more realistic effect than an artificially lit scene would. I also feel that the one light most underwater cameramen use is distracting as you can usually see the pattern of the light moving across objects, or on divers, as they swim through a scene. Another problem caused by this type of lighting is a much quicker light fall off on the background, causing it to go dark or even black.

As underwater DP, my biggest problem was to "Direct" underwater. Our method was to thoroughly brief all the actors on the upcoming scene on deck before going over the side.

I also carried two underwater slates. The slates were white Plexiglass, which we marked with black grease pencil. One slate had the scene spelled out, and the other was blank so that I could give explicit directions when needed (*they often were*).

A recurring problem with our actors was one of over-enthusiasm. I would signal the start of a scene and they would carry on. Calling "Cut" underwater is a problem, and they *never* looked at the camera for my frantic hand signals. My usual technique was to stick a slate under somebody's nose with the word, STOP! We would then have to go back over the action, sometimes having to bury a "found" artifact or remove an object placed in the "goody" bag—but with their complete cooperation, all these problems were minimal.

The real problem was still the weather. With so many underwater scenes, boat-to-boat scenes, a water-bound chase and an adventure with the Florida Marine Patrol, we had to find a lot of days with good weather and seas. At this writing, we still need about five more days, which we expect to find in the next couple of weeks.

In addition to the underwater and boat sequences "TREASURE GALILEON" has several other settings. One with Mr. Art McKee, the "Grand-Daddy of Treasure Hunters" at his Treasure Museum on Plantation Key, and another one with Mr. Mendel Peterson, Director of Underwater Archeology at the Smithsonian Institution, Washington, D.C. Mr. Peterson arrived in the Keys for a two-day shoot that showed him and

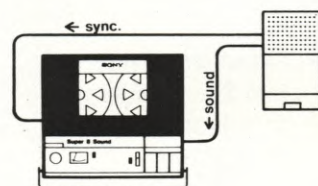
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Tom Gurr examining and evaluating the numerous artifacts and coins. One scene was shot at a local restaurant with interesting decor and the other at Tom's house.

The Keys Community Hospital and the Tiki Bar were also locations in the film. The hospital scene brings the "injured" John Noland and his nurse "Nancy" together for a short-lived romance. She is, in fact, trying to "pump" him for the location of the wreck. Judy got the part as the nurse for the combination of her looks, her acting ability and her experience as a SCUBA diver and boat driver.

Nancy "cons" John into showing her the way to the wreck in her boat. The boat is a sleek green speedboat, powered by the new Johnson "Stinger" engine. John and Nancy are seated back-to-back in the small boat to give him room for the massive cast on his "injured" leg. This scene and another chase scene where Tom uses my 21-foot Stamas cabin cruiser equipped with a 125 h.p. Johnson (we used this boat as a combination film prop, camera boat and crew ferry), gave me quite a challenge.

We filmed boat-to-boat, passing, running parallel, following and leading. We filmed from the shore, from the bridges and inside the boats. The latter was the biggest problem, as even a boat the size of the Stamas is a little small for a studio. I have learned to rig a sling on the bow of the boat and hang over to get shots through the windshield of the driver and passenger. This is a shot I only attempt when I know I have a competent boat driver.

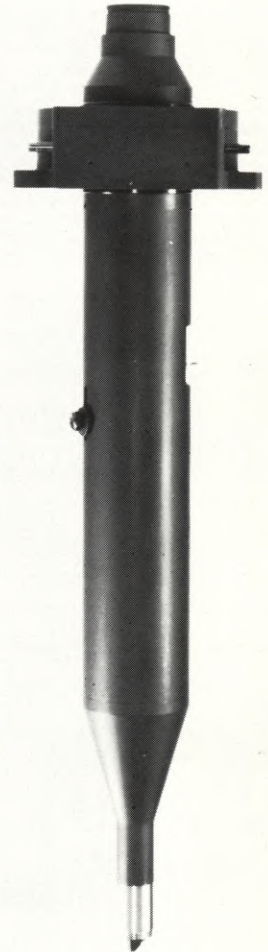
Shots winding through the Mangrove-lined creeks were also troublesome. I would get myself positioned for the shot and Tom would round a bend and my shadow and the shadow of the camera would appear on his head or on the boat somewhere in view. Most of the boat interiors were shot with the Eclair NPR and a 10mm Schneider lens for sufficient coverage in the tight quarters. I would have preferred my Arri "S" on a shoulder-pod, but it was tied up in the underwater housing.

The Tiki Bar was the scene of a real Keys fish-fry and party all filmed and worked into the plot. This one was a bit of a problem as the bar has a very limited electrical service. We "popped" circuit breakers all night. I was also more than a little concerned with the Colortran lights in close proximity to the thatched roof.

The last scene filmed to date was Tom's visit to the Archives of the Indies in Seville, Spain. I travelled with Tom and his wife Greta to film this short but important scene where Tom enters the

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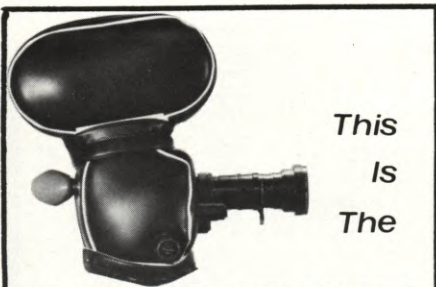
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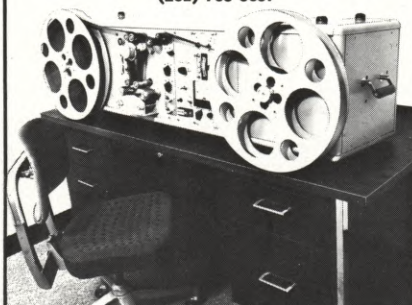
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archives building built in the sixteenth century. The building now houses some 30,000 bundles of original documents concerning Spain's history of the treasure galleons and their conquest of the New World.

Interiors in the building were a problem, as no lights were permitted. We shot 7252 and instructed our lab, M.P.L., Inc. in Memphis, Tennessee, to push the film one stop. I explained our problem to Lynn Bigbee, M.P.L.'s ever-helpful and knowledgeable Vice President, and she also suggested "post flashing" to cut down the contrast introduced by increased development and the inherently contrasty scene itself, which was lit by sunlight streaming in through the tall windows of the arches. The results justified the trip.

"TREASURE GALLEON" will be my fifth water-oriented and underwater production. Every time I get involved with one I ask myself, Why?. The problems encountered in this type of film are tremendous; weather, corrosion of equipment, water clarity and shooting in confined locations all make the job a tough one but, when this film is finally finished I will probably go out and look for another one just like it. I guess I just like boats and underwater filming. ■

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FILM TECHNIQUES

Continued from Page 705

That is, in some respects the equipment may not be capable of doing exactly everything that film can do, but it is very very close in most areas.

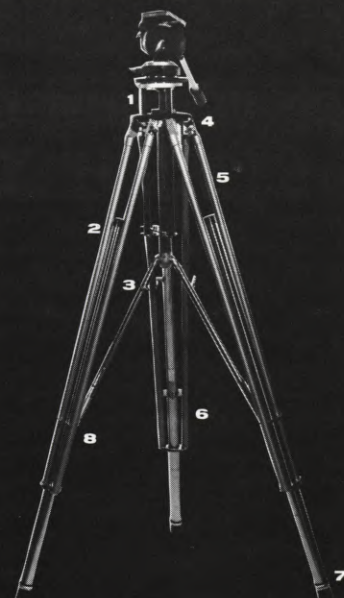
NEWBY: A frightening factor arising for film people shooting tape is that they're afraid of not using the right terms, particularly in front of other people. I know my first time I was afraid of saying something dumb in front of my clients and having them think that this guy had never been near a tape camera before. In fact, in just a few minutes, you can learn everything you're going to have to know to sound like an expert. And it's certainly worth investing a little time asking the question than not knowing the answers and risking an expensive mistake. Also, the cameraman is always in touch with the engineer through the private line on his headset so it's possible to ask questions in private while shooting. I don't believe that we've changed our working habits much from film to tape. We don't clap the stick on the slate when shooting sound since they're automatically in sync. You've got to tell the engineer when to roll tape so he can have speed when you're ready to shoot. Other than that, everything is about the same, including the tripods, heads, dollies, lighting and so forth.

PETHEL: You mentioned the set-up time taking a little longer than in film. Now, without moving what I call the "bells & whistles", that is such luxury items as the monitor on the set, you should be able to treat each set-up change just like film. The only difference then between the portable tape camera and an Arriflex is the tape camera's cable. It's a very small cable and doesn't require a crew to move it.

NEWBY: But not for long.

PETHEL: Not for long, that's right. The camera does not require a cable to work, but the cable represents the link between the camera and the recording system. The tape machine we're using now is very small and could physically be carried by one man on his back. It's a full playback recorder. Conceivably you could pack up the camera and recorder and go out completely independent and shoot as you would with a film camera. Perhaps you'd have two people, one carrying the camera and the second carrying the recorder. That's the same as one carrying the Arriflex and the other the magazines.

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PERGOLA: That would be the optimum. I assume this is what they're working toward.

PETHEL: The ideal situation is to open up the side of the camera and stick a cartridge inside. I see this as a matter of evolution in development.

NEWBY: Let's go back a few steps. The first question I ever asked about videotape and one which I assume other cameramen are interested in, is: what's the ASA of videotape?

PETHEL: That is a variable. That's one thing which, if you mention it on a videotape set staffed with all tape people, they may not have any idea what you're asking. They may know that that's a film term and not a tape term. There is a co-relationship between the two and you have to sit down and figure out what the relationship is and establish it. The ASA of tape is a determined point where you have maximum signal-to-noise ratio or, in film terms, the least amount of grain and other contamination outside of the picture content.

NEWBY: Can you go on a set or on location, determine what your light level is and say, "Boy, I sure would like to work with an ASA of 64 today?"

PETHEL: I can make it work. Now, you'll compromise in terms of these other ingredients like grain and noise, but you can make the camera work and you can have a full-level picture.

PERGOLA: Well then, what would the ASA be without a compromise?

PETHEL: It's determined by the manufacturers, based on the specifications which apply to a particular piece of equipment. It's like most cars are designed to run best at 60 miles an hour. It'll run fine at 25 miles an hour also but it'll not be running as efficiently as it will at 60.

NEWBY: Back to specifics. At one time Rick Anderson and I were working on a job with you and we asked what the ASA was. You said 100. We pulled out our meters and put in our 100 ASA slides. The reading we got had absolutely no bearing on the exposure we eventually used. Why?

PETHEL: Run that by me again and let me figure that out.

NEWBY: Well, we were working on the basis that videotape is rated at ASA

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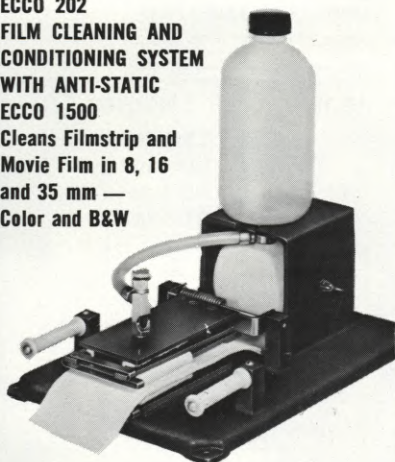
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100, which, at that time, you said was the standard. When we put a 100 ASA slide in our light meters we got a reading of, let's say, F/5.6, but in reality we had to shoot at an F/11 to get the proper exposure.

ANDERSON: I think it had to do with our meters being set for a 50th of a second shutter speed and the tape cameras are different.

NEWBY: But the tape camera is recording at a rate of 30 frames a second.

PETHEL: A 60th of a second is the writing rate. The videotape system writes frames or fields down in a 60th of a second.

NEWBY: O.K., 30 frames against 24 frames, but at a 60th of a second you wouldn't find a two-stop exposure difference.

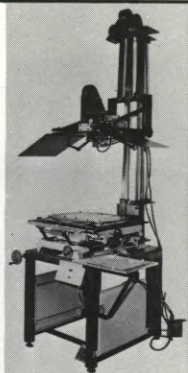
PETHEL: No, the difference here is that television gear has another advantage, or maybe disadvantage. This is that you have control over the gamma characteristic of the camera. You have instantaneous control over the grey distribution in the middle. There is white, which is one limit, and black, which is another limit, and all the greys in between and, with a tape camera, you can turn knobs and change this. So, in fact, there may be two stops difference because, in film, you can take whites and overexpose them and nothing happens to the rest of your picture. The whites are still there and you still see them as white. You can also hold some detail in film even within an overexposed white area. But in tape, if you want the same detail in the white area, you may get it, but you'd have to set your iris based on a visual evaluation of the scene. Chances are that you would end up at a different exposure setting than you would with film rated at 100 ASA. The difference is often one of esthetic versus technical. In tape the gamma factor enters into the decision. That is, you have the variable changing of the distribution of the greys. The grey distribution on a given camera may or may not be the same as a given piece of film.

NEWBY: Now let's translate what I think you have been saying into terms with which Rick and I are getting accustomed to working in tape. The question is, what are we going to do with our light meters? How are we going to use them and how are we going to know when we're in trouble? Well, what we've done is virtually thrown the light meters out. We light with our eyes as we

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watch the various monitors. The only thing we measure inside is the light ratios, but we really don't have to since we can see what's happening as we light.

PERGOLA: Well, in film you light by eye, too, but you know what your limitations are.

NEWBY: You won't see your limitations, though. In tape if you're shooting against a white sky and you have not balanced enough light on your subject so that the ratio of sky-to-subject is pulled down within the technical limits, you will see the problem, the result and the eventual solution right there on the spot. The engineer in the truck will help the cameraman to see any problems such as this by referring to the monitor.

PERGOLA: Is this man in the truck judging this technically or aesthetically?

NEWBY: He has to do both. If you say to him 'I want a silhouette,' he'll most likely tell you you've got it, when indeed you do.

PERGOLA: Well, good. That's what I wanted to know.

WINNER: If you're going for a normal studio set-up with no special effects, do you start out with basically 200 foot-candles?

PETHEL: Generally, most tape cameras are set up to work within this range.

NEWBY: But, we recently worked together on a job with considerably less than 100 foot-candles and the results were technically sound. Right?

PETHEL: Right.

NEWBY: We produced a series of commercials for the United Jewish Federation utilizing a black background and very stylized, alternating lighting. You lit it, Rick, what did you do?

ANDERSON: We just lit it to look right to the eye. It was a hard side light that faded on and off as the various people sang the song. Although, we were working well below the normal preferred level of video, the results were certainly acceptable and visually quite pleasing on tape.

NEWBY: In other words, this is an example of the cameraman and the engineer putting their creative and technical minds together to arrive at a solution that satisfied both.

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PETHEL: Exactly. I was able to make some technical changes which basically prevented the system from trying to make more picture from the grey and black areas. Thus, Rick was able to work with perfect flesh tones against a stark black background. We also told the editors exactly what we had done technically. Therefore, they didn't allow their equipment to try and automatically boost more picture information from the original master tape.

PERGOLA: *What's most important for me to understand is: what are your limitations?*

PETHEL: They're the same as film, except that there is a limit to the total amount of light you can pour into the lens. Other than that, the ratios are the same.

ANDERSON: *Yes, but, as far as I can see, film still handles a wider range of ratios. Like when we have a scene where we are shooting a subject in the shade, then the sun is at an angle which hits the background foliage very strongly. We would just let it go on film and there would be no problems. But in tape, it will ghost out unless you fill in the shaded areas.*

NEWBY: I have found that it's a good idea to bring lots of lights when shooting a person outdoors on tape.

PERGOLA: *Because you don't get detail in your shadow areas?*

PETHEL: But I can expose the tape so that I can see the detail in the shadows. However, then the white is super white.

NEWBY: *What do you see creatively different between film people and tape people?*

PETHEL: The people who are accustomed to shooting film, as a rule, don't concern themselves with whites. They're not concerned about the amount that something burns out. To help you film people shoot even more videotape, there are some things on the horizon that are going to make tape 10 magnitudes greater than what you are presently enjoying with film. Conceivably, there's equipment now that can shoot out the window and see every bit of detail in the white building across the street and simultaneously see every bit of detail inside this dark room.

NEWBY: *What about color temperature differences?*

Continued overleaf

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PETHEL: Here is a nice thing about
tape. The color is broken down into
primary colors just as it is in film. We're
dealing in reds, blues and greens. When
you set up for a given temperature of
light, the camera is adjusted accord-
ingly. In tape we can shoot with any color
of light and wind up with a fairly
accurate representation of flesh tones
and all the other things that the eye sees
as being natural and normal. This is
done by changing the color distribution
or the color sensitivity in the camera.
You "paint" the camera, in other
words. You paint the sensitivity of the
camera so that it sees green light as
white light or red light as white light.

*NEWBY: Let's suppose that today Jim-
my or Howard gets a call to shoot a tape
job, what do you recommend they do
to prepare in a short period of time?
Can they call you up and come out and
play with the equipment?*

PETHEL: If they have never used it
before, I would say yes. But only for
the reason that it give you confidence
that it's still just another camera. Most
film cameramen will find that the port-
able tape camera, using the "C" mount
adaptor and film lenses, will respond
just like the cameras they use day in and
day out.

*BARBER: How do the young guys just
getting into the business relate to this?
It seems as though the assistant camera-
man will no longer be needed.*

NEWBY: Oh no, not at all. We have
never shot a tape job without an assist-
ant cameraman. The assistant camera-
man is still responsible for the handling
of the lenses. Remember, we are talking
about the portable tape cameras with
film lenses. These lenses are exactly the
same lenses that we use in film produc-
tion. I believe that the assistant camera-
man is perhaps more important in this
form of tape production than in film.
The assistant no longer has the responsi-
bility of loading magazines. That, in
effect, is done by the engineer in the
truck. In practice the assistant and the
engineer form a partnership to help the
cameraman. They talk on the private
intercom and discuss critical focus, re-
view the success of complicated zooms
and other moves; and the assistant can
easily learn to assist in tuning the
camera.

*PERGOLA: There's much less drudgery
and more opportunity for the assistant
to contribute.*

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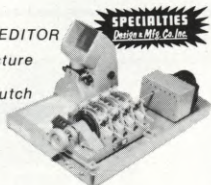
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PETHEL: Exactly. The assistant is allowed to make important contributions to the production.

PERGOLA: In general terms, the production technique for tape is basically the same as what it is for film crews. This is a fact that would probably amaze a lot of people in the film industry.

PETHEL: Another interesting fact is the power requirements for this portable unit. In the past, people who've worked in tape have always had this hangup about the huge generators or power drops required to run the equipment. I can run my entire production facility off of one 110-volt outlet. I can plug it in the wall or run it on batteries.

PERGOLA: Then you can take your television cameras up in a helicopter? You can mount it on a car?

PETHEL: Anywhere.

PERGOLA: In other words, it has the mobility of an Arriflex or Eclair?

PETHEL: Yes.

PERGOLA: Well, that's wonderful. Will this portable equipment eventually replace the hard or heavier cameras?

PETHEL: I'm sure that it will. They're already designing equipment which is even more portable and more flexible than what we've got now. At the recent NAB convention they had a camera that has some new experimental tubes in it. They demonstrated the camera making perfect color images at point three-nine foot-candles. Can you relate to how much light that is? It's like the inside of a closet. And this is a broadcast quality camera, not a toy. The potential for covering instant news anytime of the day or night is astounding.

NEWBY: Changing hats for a moment and talking from the point of view of a producer, there is one misnomer about tape. Many people think of tape as being cheaper than film. But, to do it right, particularly on location, it is about the same price. Many of our clients ask us to run side by side budgets and give them the option of whether to produce on film or tape. In studio production, tape is often less expensive, since most tape rental studios will allow you to buy a portion of a day. On location you can't do this. Since these film techniques we've been discussing today have come on the scene in tape

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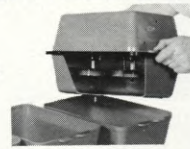
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production, tape is losing its "tape is cheap" image. Now film people are saying it costs as much as film, so it must be good.

PERGOLA: I wonder how many film-oriented people realize how close this form of tape production has come to film?

NEWBY: In television commercial production, the biggest problem you'll find is the agency art director who is accustomed to working with film and states that he just doesn't like the graphics in tape. Once you've proved to this guy that he can indeed get a film look on tape, you've got him forever. They are so concerned that tape just cannot be lit like film. They still think of tape lighting as being that "live television look" where every light in the place is turned on.

PETHEL: This is a whole new industry. The industry simply was not in existence four years ago. We're now talking about electronic photography, which adds so many perspectives to what a creative person can do. Now you have the latitude of instantaneously achieving critical match shots for match dissolves, corresponding camera moves and so on. No more waiting for the lab to process the dailies, then selecting a good take to take back on the set for matching purposes.

NEWBY: Just last month we had to match a shot for a pickup edit. We took the previous scene, played it through our floor monitor and mixed it with our live camera. In half an hour we had matched all the lighting and action and the scene was in the can—or on the tape, if you prefer.

PERGOLA: What should a film cameraman do to prepare to shoot tape? Are there manuals to buy or schools?

PETHEL: I firmly believe you don't have to change anything. If you are a competent film cameraman you can shoot tape. There's nothing you have to know.

NEWBY: You're saying that if he had to go out tomorrow morning and shoot tape, it would take you about 5 or 10 minutes to say "don't forget to tell me to roll tape?"

PETHEL: Right. It's that simple.

PERGOLA: The one thing that would bother me is that I wouldn't want to walk out on the set and say, "Hey, bring

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that thing over here, whatever it is, we want to use it."

ANDERSON: It's still a camera. The first time Jeff and I worked together on tape I'd never seen the camera before. He stuck me on it and we did a little whispering between ourselves. Price and I got on the headsets and got to know each other very fast. In a matter of minutes, I was talking tape talk, at least all the tape talk I had to know. The rest was really film talk.

NEWBY: We even have been shooting tape with a film soundman. We'll use whatever microphone is required for the particular scene. The sound will feed through the soundman's quarter-inch recorder and right into the truck and on to the videotape. Thus, we keep critical control over our sound and we have a quarter-inch protection tape of all the sound.

PERGOLA: O.K., so the techniques are virtually the same. Jeff said that the costs are also about the same. How is the money distributed?

NEWBY: We will spend more money renting the videotape camera equipment, including the recording equipment, than we would in film. The same amount of lighting, grip and electrical equipment will be used. But we'll spend much less on raw stock in tape and usually much less in editing. In one day of tape shooting we might use between \$150 and \$350 worth of tape. I've never shot for a day on film and had my purchase, process and workprint costs anywhere near that low. Videotape editing is based on hourly charges, but generally, if you've done your homework before starting an editing session, you'll come out with a finished product much cheaper than the total finishing costs for film.

PETHEL: You can also rent the tape, since it is reusable. You rent it until you're through editing then it's just erased and ready for another day of shooting.

PERGOLA: How do Directors of Photography in film and Directors in film take to tape? Have you found it to be an easy transition?

PETHEL: I found that Directors of Photography, as a rule, are the last people to come around. The D.P. is the person who has most accurately developed his techniques. He's the guy you rely on for really understanding the critical parts of the production. In tape

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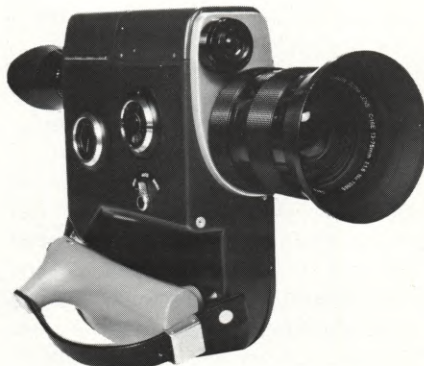
he sometimes feels that his prerogatives have been taken away from him a little bit. In tape there's somebody else to make those same judgments and judge the aesthetics, since the monitor is on public display.

NEWBY: But even though the D.P. might get some unsolicited opinions, he does have the security of getting what amounts to an instant lab report.

PERGOLA: I'll bet you that 99% of the cameramen in this country are not aware of what we've discussed today. And if they were, there would never have been such a negative attitude about shooting videotape film style.

PETHEL: I don't want to paint too rosy a picture, we're still improving the state of the art.

PERGOLA: You've got me sold. ■



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CINEMA WORKSHOP

Continued from Page 660

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Obviously the reflected reading (unlike the incident reading) is not meant to be taken literally. Because the reflective meter does not know the color or brightness of the subject, the cinematographer must add this information to arrive at the proper iris setting. The reflective reading will put the subject in the center of the film's latitude (medium gray). It is up to the cinematographer to decide if this is the best place for it. As an example, a scene is to be shot in a snow-covered field. A reflective reading is taken and indicates an F/11 reading. If the aperture is thusly set, the snow will be rendered tattletale gray. The cinematographer knows his particular film stock has a latitude of $\pm 1\frac{1}{2}$ stops and would like the snow to be high on the latitude curve, but not into overexposure. In this case, he would probably shoot at F/8, one stop open from the reflective reading. Thus, the snow will come out white, while still leaving about a half stop of latitude above the snow for highlights. Likewise, if the subject were a forest of dark trees and a reflective reading indicates an F/5.6 reading, the cinematographer would stop down about one-half stop from this because he wants the subject to be darker than the medium gray which would result if the F/5.6 reading were used.

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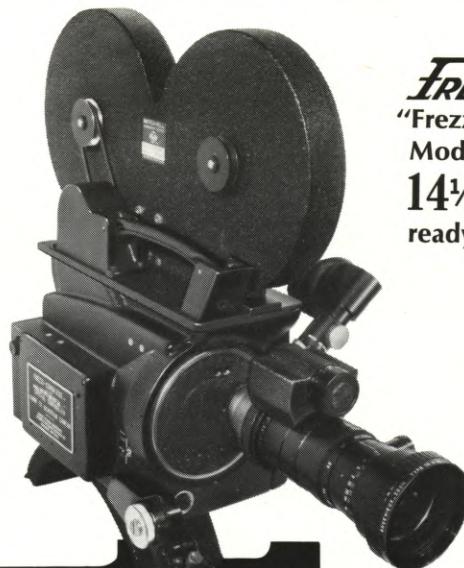
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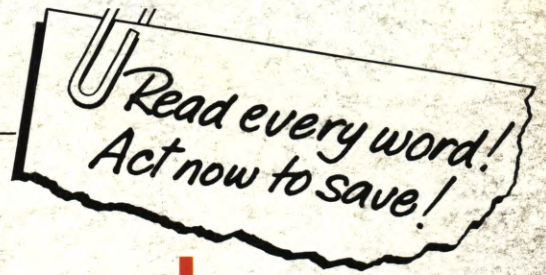
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byron on prices

WE'RE FIGHTING INFLATION BY ABSORBING LABOR AND MATERIAL COST INCREASES TO BRING YOU LOWER LAB PRICES.

As we enter the President's economic Phase III, we were about to publish a new price list. However, we decided to take a firm stand against inflation.

It was a big decision.

During the government's price controlled Phase II, increased costs were passed along at the actual increase only, without any mark up. But with Phase III the picture changes. We had fantastic cost increases during last year. On February 1, 1972 our union labor contract was increased 7% plus fringe benefits. Another increase of 7% became effective February, 1973. Administrative salaries are up 5 1/2% per year. Certain raw stocks have increased. Social Security taxes took a jump in January. Workmen's compensation will go up in excess of 60%. Chemicals have doubled in 1 1/2 years. Light, heat, shipping,

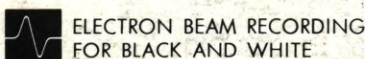
insurance and practically everything else has gone up.

Normal business practice would indicate that these increased costs should be marked up and passed on. Other labs have already substantially increased their prices.

We hope to be able to absorb these inflationary costs by increasing our volume. In order to achieve this objective, we must retain our old customers, and encourage new ones to use our facilities. Help us hold the line. Save yourself money at the same time. Phone or write telling us of your requirements. Compare our quality and prices with any other lab. We're highly competitive. And our prices are low—the same as last year's. If you have last year's price list . . . continue to use it. We're not raising prices at this time, so don't look for any price news from us.

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