sion in Rockleigh. In his new post he will be responsible for film printing processing, sound transfer and cassette loading operations. Before joining the EVR team he was with J. A. Maurer Inc. as Chief Engineer of Precision Film Laboratories.

Two new appointments have been announced by Imero Fiorentino Associates, Inc., 58 W. 68 St., New York, NY 10023. Peter Howard has been appointed Chief Consultant in charge of the Facilities Planning Dept. and Fred McKinnon has been appointed Facilities Consultant. Mr. Howard was formerly Manager of Production Facilities Planning for CBS and Mr. McKinnon was formerly Lighting Director at NBC.

John J. Leay, Director of Engineering for Management Television Systems, Inc., 277 Park Ave., New York, NY 10017, has been named Vice-President of Engineering. He has been with the firm since 1969. He was formerly Chief Engineer of WOR-TV in New York. Management Television Systems produces closed-circuit telecasts of business and other meetings and boxoffice events on a worldwide basis.

Van Deren Coke, who became Director of George Eastman House, 900 East Ave., Rochester, NY 14607, has announced four new appointments. Thomas Barrow has been appointed Assistant Director. He was formerly Associate Curator in charge of the Research Center; he is succeeded by George Pratt who was formerly Curator of Motion Pictures. Dennis Longwell has been appointed an Assistant Curator in the Research Center. Daniel Andrews, who has retired as an engineer with Eastman Kodak Co., has been appointed an Assistant to the Director.

C. Lee Smith has been appointed Director of Operations and Western Sales Manager for Metro/Kalvar Inc., 745 Post Rd., Darien, CT 06820, and Stanley E. Toy has been appointed Production Supervisor. Mr. Smith was formerly Manager of the Programed Instruction Div. of Sargent-Welch Scientific Co.; and Mr. Toy was formerly with Vitro Laboratories as Project Head of Process Quality Control-Graphic Art Reproduction.

John M. Eargle has been appointed to the newly created position of Director of Commercial Sound Products for the Altec Division of LTV Ling Altec, Inc., 1515 South Manchester Ave., Anaheim, CA 92803. He was formerly Chief Engineer of Mercury Record Productions. He has also been affiliated with Universal Recording in Chicago and the RCA Record Div.

Edward Reingold has been appointed Engineering Manager, Film Operations for Educational Broadcasting Corp., 305 W. 58 St., New York, NY 10019. He was formerly Photographic Engineer of ABC and has also been Assistant Chief Engineer of CBS News Film Production. In his new post he will be responsible for film systems and facilities, color quality control, equipment development and acquisition.

Sheldon B. Satin has resigned from Electrographic Corp. where he was Executive Vice-President of Research and Development, to head his own communications consulting operation. The new firm is Throckmorton/Satin Associates, Inc., 1175 York Ave., New York, NY 10021. The firm will specialize in the new audio-visual technologies.

Louis L. Pourciau has been appointed Vice-President of Engineering for International Video Corp., 675 Almanor Ave., Sunnyvale, CA 94086. He joined the firm in 1967 as Engineering Manager. He was formerly Manager, Advanced Development Television and Displays for the General Precision Div. of the Singer Co. in Pleasantville, N.Y.

Setsutaro Kobayashi, formerly President of Fuji Film, has been elected Chairman of the Board succeeding Sakae Haruki who retired. Mr. Haruki continues as adviser and director of the organization. Announcement was made by Fuji Photo Film U.S.A., Inc., 350 Fifth Ave., New York, NY 10001. The new Fuji President is Kusuo Hirata.

Ben Bloom has retired from Movielab, Inc., 619 W. 54 St., New York 10019, as Vice-President of Sales and Trade Relations, it was announced by Saul Jeffee, Movielab President. Mr. Bloom had been with the firm for 22 years at the time of his retirement. He will continue in the capacity of consultant.

Berend Van Benthem has been appointed Manager of Video Products Marketing for CBS Laboratories, High Ridge Rd., Stamford, CT 06905. He has been with CBS since 1960 and was formerly Project Engineer for Canadian Broadcasting Corp. in Toronto. In his new post he is responsible for worldwide marketing activities of video products distributed to the broadcasting industry by the CBS Laboratories Professional Products Group.

Charles R. Duke has been appointed acting General Manager of the WSIX Broadcasting Stations, Nashville, Tenn. He succeeds Ray J. Shouse who resigned. Mr. Duke has been with WSIX since 1945.

Elmer Smalling has been appointed Director of Engineering for Pictronic, the tape duplicating and trafficking division of Columbia Pictures Industries, Inc., 711 Fifth Ave., New York, NY 10022. He was formerly Chief Engineer for Transmedia, a TV commercials production company. He has also been Chief Engineer for KYW-TV, the Westinghouse station in Philadelphia and WPHL-TV, also in Philadelphia.

Clifford H. Paul has been appointed Systems Manager for Middlesex Cablevision, a Community Antenna Television System in East Brunswick, N.J., it was announced by Wometco Enterprises, Inc., 306 North Miami Ave., Miami, FL 33128. Wometco assumed management of Middlesex on July 29. Before joining Wometco, Mr. Paul was a Systems Manager with American TV and Communications.

books reviewed

Introduction to Programming and Computer Science

By Anthony Ralston. Published (1971) by McGraw-Hill Book Co., 330 W. 42 St., New York, NY 10036. 514 + xx pp. Illus. Diagrams. 6 by 9 in. Price $9.95.

Although formal data-processing activities are peripheral to the uses to which motion-picture and television engineers normally put electronic computers, this book is of interest as an excellent introduction to the procedure-oriented (or, as designated by the author, *p-o*) languages used with most large scale computer systems. The author makes it very plain that he is neither introducing computers nor writing a stand-alone textbook on programing technique. Indeed, he notes that the book will be especially helpful as a supplementary text to a student taking a course in one of the *p-o* languages.

An especially interesting feature of the book is the parallel treatment of the four most popular *p-o* languages: FORTRAN, ALGOL, COBOL and PL/1. By having examples from the different languages presented simultaneously, the student can appreciate the similarities and contrasts of the different languages, perhaps giving him an insight into why one or the other is better for his intended applications.

The book is written in an intelligent and scholarly style, with none of the unconscious patronizing common in many introductory texts. Chapters cover a discussion of computer science, basic concepts, computer numbers (i.e., binary, octal, and hexadecimal counting) and memory organization, and aspects related to programing before discussing specific languages in detail. This is followed by six chapters on programing languages in detail, followed by a chapter on operating systems and time sharing. To be sure, the discussion of input-output hardware restricts itself to *p-o* type languages; hence, certain types of input-output devices are not covered (or are merely mentioned). However, the author notes this fact within the text (such as the statement about light pens on page 395), thus keeping the scope of his book in perspective.

For the engineer who is directly involved in work requiring analysis of problems in a procedure-oriented language like

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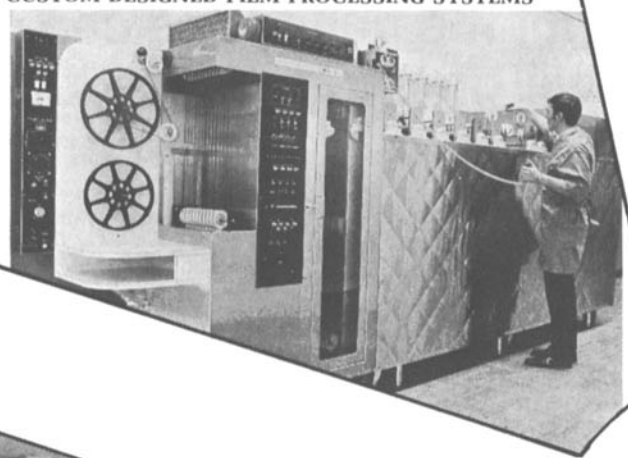

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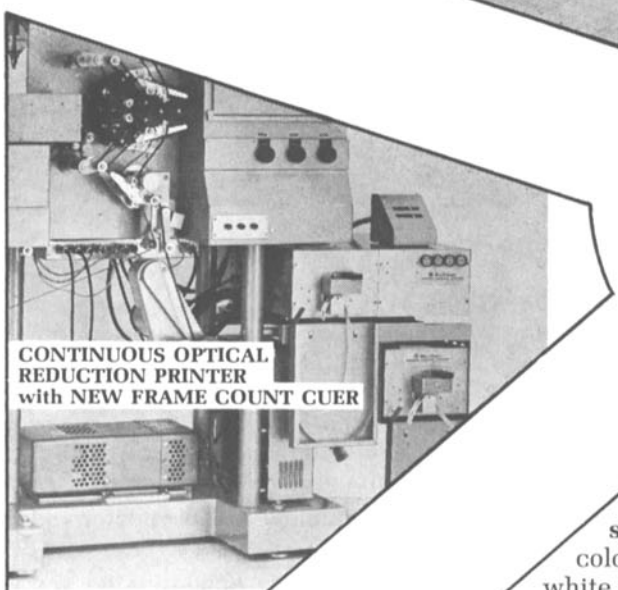
for motion picture film printing and processing equipment



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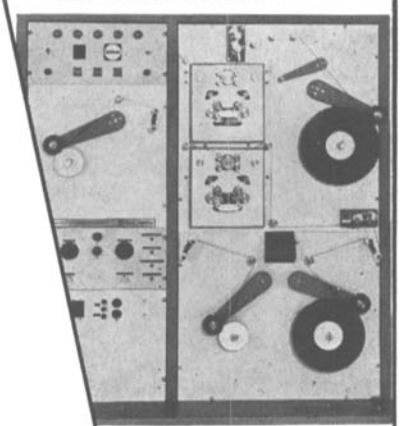

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What the handgrips can do will give you some idea of what the camera can do.

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

EVERYTHING AT YOUR FINGERTIPS.

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

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

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

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

BODY HELD. NOT HAND HELD.

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

WE BUILT A BETTER MAGAZINE.

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

ELECTRONICALLY CONTROLLED MOTOR.

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

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

OUR LENSES. AND MORE TO COME.

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

EXPOSURE CONTROL. AUTOMATIC AND NOT.

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

THE VIEW FROM THE FINDER.

The Bolex 16 Pro is a mirror reflex camera with a 20 X magnification at the viewfinder. The mirror is always in viewing position when the camera stops. The viewfinder converts instantly from ground glass to clear glass, to give a brighter image in dim light or with the lens stopped down.

You can rotate the viewfinder 45, 90 and 180 degrees, which makes it possible to film with the camera aiming backwards over your shoulder.

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

PUT IT ALL TOGETHER.

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

BOLEX 16 PRO

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

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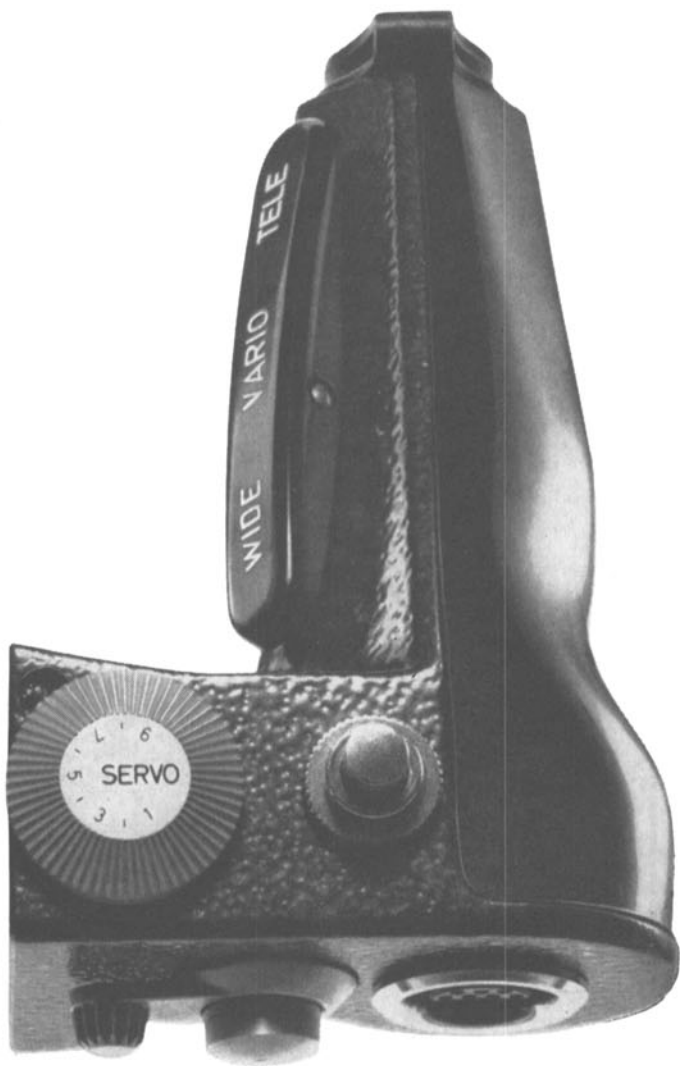

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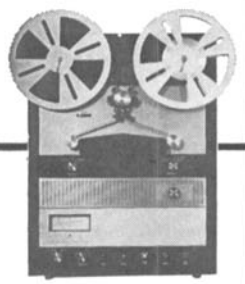
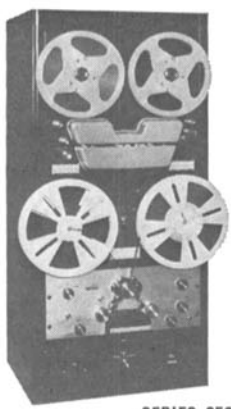


MODEL 2300-R



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MODEL 2300-R SOLID STATE DISPLACEMENT RECORDER — makes single system editing possible. Automatically re-positions the sound track of a processed 16mm single-system release print film to "editors sync" . . . sound and corresponding picture "in line" . . . for rapid, accurate editing, and then automatically re-positions sound track to "printer's sync" or "projection sync" for immediate projection. The unit may be interlocked with other magnetic film recording equipment and projectors including conventional TV chain projectors. $2495.00

MODEL 230 MIXER — NAGRA COMPATIBLE SOLID STATE MICROPHONE MIXER — Specifically designed to conform to the input characteristics of the Nagra ¼" tape recorder, with special consideration given to their aesthetic compatability. $395.00

SERIES 2500 SOLID STATE TRANSFER SYSTEM — 16mm, 17.5mm or 35mm synchronous magnetic film. Unit consists of a heavy-duty quarter-inch magnetic-tape reproducer, a solid state sync pulse amplifier, and a sprocket magnetic film recorder/reproducer, all mounted in a single rack cabinet. This system is capable of transferring a pre-recorded quarter-inch tape to sprocketed film without tying up the field recorder. From $4650.00

SERIES 2200 SOLID STATE PORTABLE RECORDER — for 16mm, 17.5mm or 35mm synchronous magnetic film. Utilizes Magnasync Transport Mechanism. Available with all standard film speeds and voltages for complete international compatability. Extremely versatile input switching circuits allow use of three low or high level microphones and line, or up to four line inputs. Input and output transformers on all channels for complete isolation and minimum noise. Modular plug in construction. The unique "quick slip" head cover permits sync marking directly over head gap. From $2775.00

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FORTRAN, PL/1, COBOL or ALGOL, this book will provide a good insight into what is going on in the formulation of programs, and the analysis procedures.—*Stephen A. Kallis, Jr.,* Consultant, 112 Central Ave., Acton, MA 01720.

Photographic Theory for the Motion Picture Cameraman

Ed. Russell Campbell. Published (1970) by A. S. Barnes and Co., P.O. Box 421, Cranbury, NJ 08512 (Published in England by A. Zwemmer Ltd., London) 160 pp. Illus 6 by 8 in. Paperbound. Price $2.95.

Practical Motion Picture Photography

Ed. Russell Campbell. Published (1970) by A. S. Barnes and Co., P.O. Box 421, Cranbury, NJ 08152 (Published in England by A. Zwemmer Ltd., London) 192 pp. Illus. 6 by 8 in. Paperbound. Price $2.95.

These two books are the first in a series of textbooks planned to cover all aspects of professional filmmaking. Four more books are in preparation. They are all compiled and edited by Russell Campbell who consulted with many individuals and firms to accumulate the information contained in the books. The project was initiated by the London Film School and carried on in cooperation with the Tantivy Press.

The textbooks are intended for students with little, if any, experience in filmmaking and with only a basic knowledge of mathematics, physics and chemistry — "no more than that which is provided by a general secondary school," Mr. Campbell states in the Introduction.

The books are generally well written and adequately illustrated.

Photographic Theory for the Motion Picture Cameraman covers such technical matters as processing, sensitometry, image formation and tone rendering, color photography and film for television transmission and other technical matters. The book contains 12 chapters. Chapter I (Introduction) begins with an explanation of the nature of light and its behavior. The final chapter (Chapter XII, Films for Television Transmission) presents a basic explanation of what can and cannot be done in filming for television and why certain filmic effects, successful in the cinema, are not advisable for television. For example, "The long fade, often dramatically powerful in the cinema, is more likely to give a television viewer the impression that his set is malfunctioning." The intervening chapters include photographs, tables and diagrams (four pages are in color) to give the student a clear idea of what is involved in the processing of motion-picture film.

With all its virtues, there are, however, some points in this first book where minor improvements could be made. On page 15, the angle of incidence and its influence on the illumination level is mentioned. It is correctly stated that the illumination is proportional to the cosine of the angle of incidence, but the illustration (Fig. 1.7) does not aptly convey the concepts involved. On page 59, in reference to ASA speed ratings, it would

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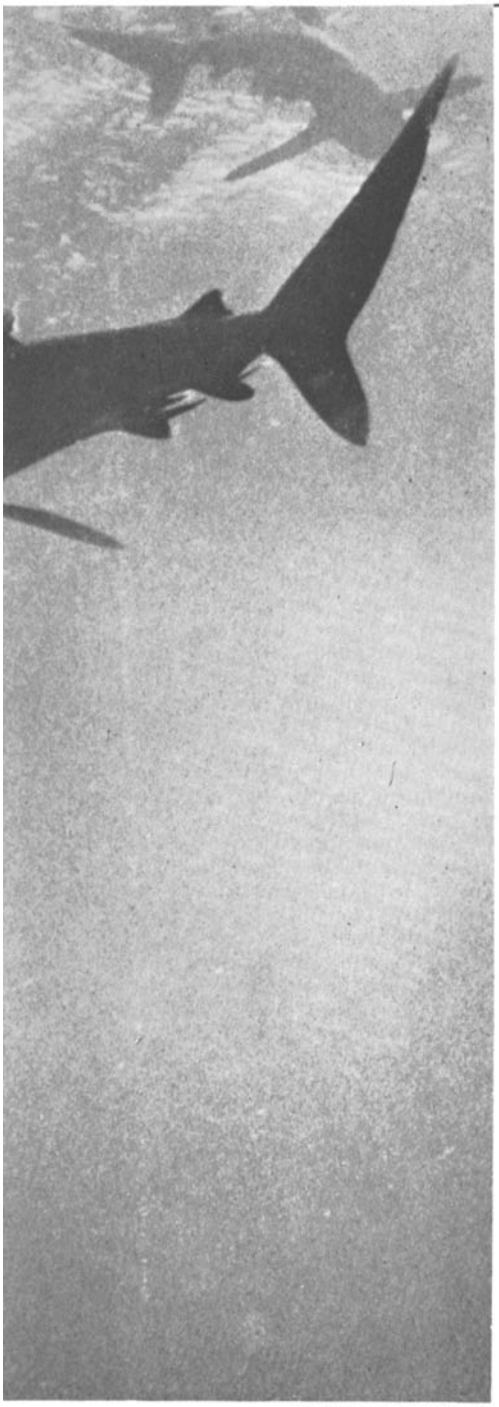
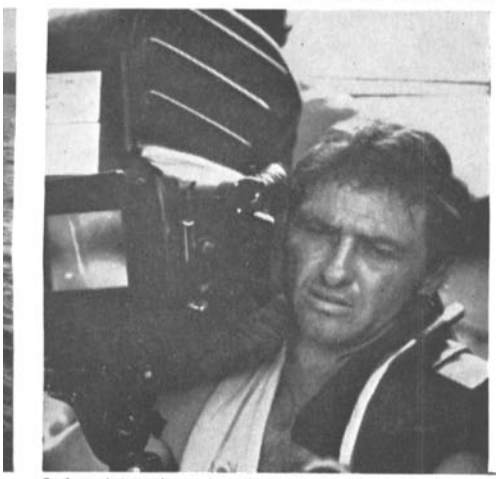
Gimbel filming Whitetip oceanic shark - Taylor in cage.

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

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



All photos by Peter A. Lake



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

"We were beyond reach of repair, so the cameras had to be Arri's"

... Peter Gimbel, Producer/Co-director/Underwater Cameraman,

"BLUE WATER, WHITE DEATH"

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

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

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

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

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

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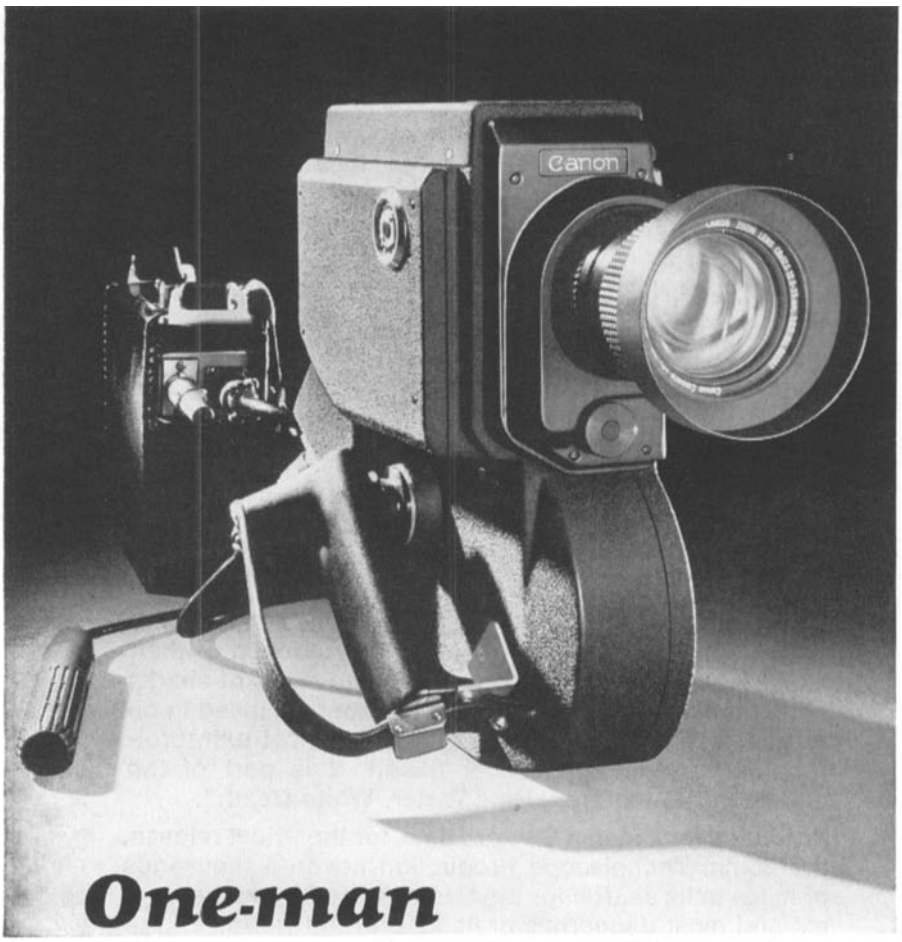

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Turns a lone wolf into a production team. 200 feet of continuous filming plus simultaneous sound recording. Its lightweight, compact 16mm portability is complemented by quick-shot EE aperture with manual override, TTL system, rechargeable battery pack. And that's just a part of the big Canon 16mm news:

When the going's rough, switch to the compact **Scoopic 16.** Its automatic Exposure Control tracks the action in any light, and years of world-wide testing have shown that the specially designed SLR viewfinder, semi-automatic loading and rechargeable battery pack work just as well at 68°F below zero!

We've got lots happening in lenses, too. The versatile **Canon Macro Zoom Lens C10 x 12 Fluorite** almost makes chromatic aberration a thing of the past, features macrophotography (down to 1mm) and multipoint focusing (lets you match focal point to focal length for exciting new possibilities). Comes with Arriflex mount (for 16ST, 16M, etc.) or optional universal C-mount.

Canon Macro Zoom Lens C10 x 12 Fluorite

Canon: big news in 16mm

Canon

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have been appropriate to state that ASA ratings are not really applicable to motion-picture film; strictly speaking, they are valid only for still photography. However, since exposure meters are always calibrated in ASA ratings, some equivalents for motion-picture film can usually be established. It would also have been convenient if the table for incident illumination with tungsten light (on the same page) would have indicated the corresponding ASA speed related to the incident footcandles, which is apparently 250 ASA.

Figure 8.6 on page 107 seems to indicate that the relative sensitivity of the blue color receptor of the eye for daylight is much too high. It is a well-known fact that the sensitivity of the human eye for blue light is particularly low and in some other works where relative spectrum sensitivity curves of the eye are indicated, the blue receptor curve has been multiplied by 10 in order to represent the curve graphically with its characteristics well pronounced. On pages following these comments, additive and subtractive curves are considered, but in many cases, reference is made to additive or subtractive projection systems when it would probably be useful to have it made clear when the reference is to be a projection system and when to an additive or subtractive system as such.

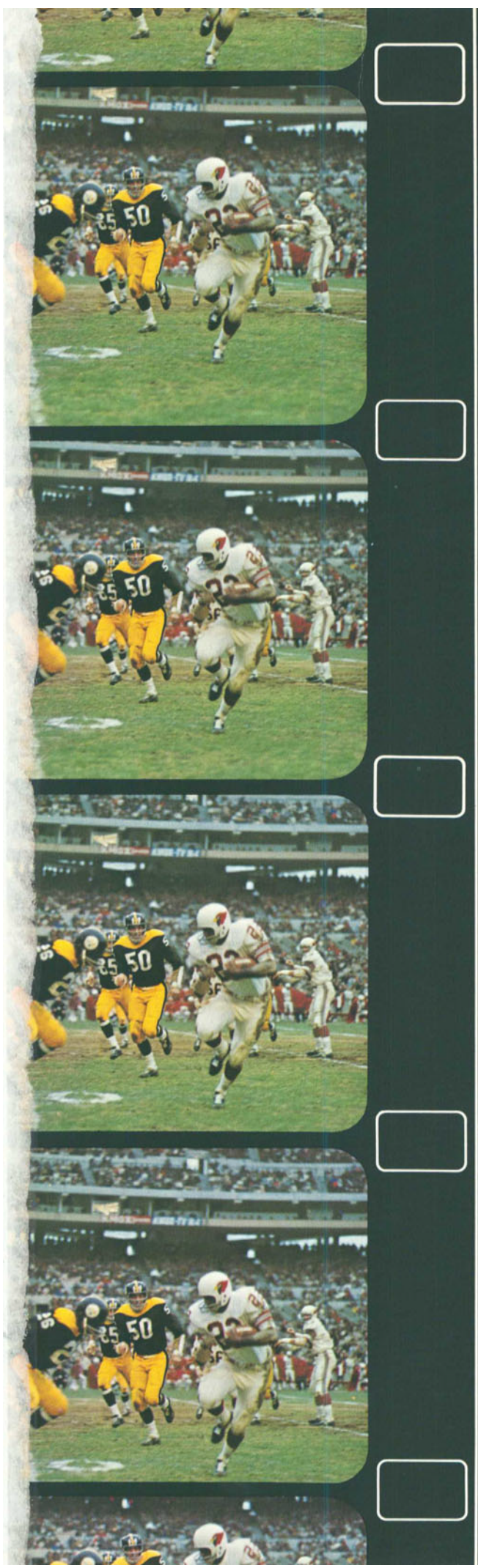
Sixteen well-known cameramen and two technical experts (L. B. Happé and R. F. Ebbets), as well as manufacturers of equipments were interviewed for *Practical Motion Picture Photography*. The book contains many extensive quotations from the interviews and the quotations are by no means dull. For example, this from Skeets Kelly (whose credits include *Those Magnificent Men in Their Flying Machines, The Blue Max, Battle of Britain* and other important motion pictures) in Chapter IX (Filming the Elements I: Aerial and Underwater Photography): "A hazy day is the worst kind for aerial photography. Everybody is gleefully telling you what a great day it is, and to show willing you take off. At about 200 feet the ground begins to disappear as if some giant hand is dragging cheese cloth over it . . ."

The skillful use of direct quotations is certainly far removed from the dull, "how-to" style of many textbooks. This excellent use of verbatim interviews can be very meaningful to the student who hopes to enter the exciting world of motion-picture production.

The descriptions of the equipment and mechanics of filming are clearly stated and practical. The student will gain an insight into the "how" and the "why" of the choice of filmstock, exposure control, use of filters and the like. A great amount of information is included in this second book. However there are some questionable statements.

Figure 1.2 (Standard 35mm Perforation Shapes) shows the positive (KS) perforation in a completely wrong proportion with respect to the negative (BH) perforation. In Fig. 2.2 a main-circuit switch would, perhaps, be in order.

With respect to Fig. 2.4 (Cardioid Response Curve), it seems doubtful that such a cardioid really exists with the type of



HUNT CINE COLOR CHEMISTRY

gaining big footage in the pro league for the reversal processing of Ektachrome motion picture films.*

If you're among the "pros" involved in processing TV news, sports, commercial or industrial films, you'll find that Hunt Cine Color Chemistry offers you advantages over the chemistry you're now using, including significant savings in material costs and operating costs.

The most important advantage of using Hunt Cine Color Chemistry is that both the color developer and the color developer replenisher come in liquid form. These liquid concentrates assure you of • exceptional pH stability—which means stable color balance in your daily production • elimination of noxious, irritating dust in the processing area • savings in mixing time.

All Hunt Cine Color Chemistry replenisher steps offer complete "on top" compatibility with the chemistry you are now using. There is no need to dump your present processor or replenisher tanks when you start to use Hunt Cine Color Chemistry. In addition, you can continue with your present quality control methods.

Hunt Cine Color Chemistry is the economical, quality chemistry for use in all of the industry's leading machines for processing Ektachrome films.

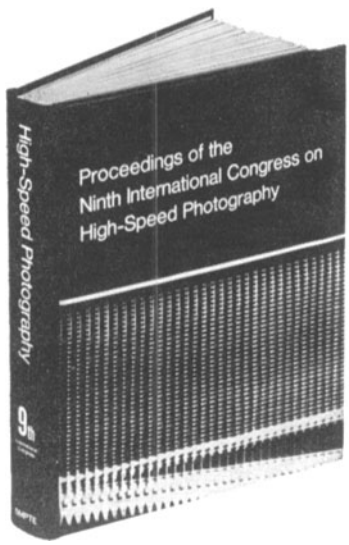
The complete system, packaged in 100 liter sizes includes: HUNT CINE COLOR • Prehardener & Replenisher • Neutralizer & Replenisher • First Developer • First Developer Replenisher • Stop Bath & Replenisher • Color Developer • Color Developer Replenisher • Bleach & Replenisher • Fixer & Replenisher • Stabilizer & Replenisher.

Hunt Cine Color Chemistry is available to you direct from 22 Hunt sales and service offices throughout the country. For prompt "pro league" service contact your nearest Hunt office today.

* *EF Film, Types 7241 and 7242 • ER Film, Types 7257 and 7258 • MS Film, Type 7256 • R Print Film, Type 7388 • Reversal Print Film, Type 7386 • and any other Ektachrome films, regardless of size, using the ME-4 process.*

PHILIP A. HUNT CHEMICAL CORPORATION
PALISADES PARK, NEW JERSEY • PHILIP A. HUNT COMPANY (CANADA) LTD TORONTO

New advances in high-speed photography



The most recent advances in the technology of photo-instrumentation have been made available to the scientific community in the *Proceedings of the Ninth International Congress on High-Speed Photography.*

The volume includes the 107 papers presented at the Congress in Denver, Colorado on 2-7 August 1970, together with all pertinent discussion of the papers during the technical sessions. Subject areas covered in the volume are

holography and image-dissection cameras, lasers,
rotating mirrors and streak cameras,
light sources and x-rays, and
high-speed photographic applications.

In addition, a Current Bibliography on High-Speed Photography, prepared by the Research staff of Eastman Kodak Company especially for the *Proceedings,* will prove valuable as a research tool. A report on the Congress, a list of delegates, and an index of authors and discussers complete the volume.

The book comprises 605 pages, 8½ x 11 inches, in hardbound edition. The price is $40.00 each, with discounts to SMPTE members, libraries, and booksellers: 1 to 4 copies 20%; 5 to 49 copies 25%; 50 or more 33⅓%.

Society of Motion Picture and Television Engineers
9 EAST 41 ST., N.Y., N.Y. 10017

exposure meter with a spherical light collector. On most exposure meters which use such a collector it is not dome-shaped, as indicated in Fig. 2.5, but just a hemisphere. In that case, sensitivity at the horizontal becomes 0 and no backwards extending sensitivity exists. Perhaps (on page 29) the concept of a "perfectly diffusing cone" merits a definition or explanation.

On page 33, a reference to photomultipliers is made, referring to lenticular glass or clear plastic covers in exposure meters for reflected light. The term photomultiplier, however, has a definite meaning in electronics and it is slightly confusing if the term is applied here, especially since no effective photomultiplying effect is achieved. Lenticular plates on exposure meters are used mainly for the purpose of limiting or defining the meter's acceptance angle. In Fig. 2.8, the photo grid should also have been mentioned.

It is satisfying to note that the book is up to date to the point where the new reflex front-projection system is described (page 161). Since this process hinges entirely on the properties of the special and new screen material which is used, it would have been only adequate if it had been pointed out that this specific screen material is manufactured by the 3M Company in the United States under the tradename Scotchlite 7610.

A bibliography is included in each of the books and three periodicals are suggested for use by the student — *Journal of the SMPTE, British Kinematography Sound and Television* and *American Cinematographer. — Edit.*

New Members

The following members have been added to the Society's rolls since the July 1971 *Journal.* Also listed are those regretfully reported as deceased since then. The designations of grade are the same as those used in the July 1970 Directory. An up-to-date list of the Sustaining Members appears on the outside back cover of each month's *Journal.* The members listed below complete the Society's roll as of August 13.

The Directory for Members, Part II of the July 1970 *Journal,* shows the geographic membership distribution by states included in the Sections.

Honorary (H)	Life Fellow (LF)	Life Member (LM)	Fellow (F)
Active (M)	Associate (A)	Junior Associate (JA)	Student (S)

Deceased:

Albert A. Fegan (A) — Alan K. Fraser (JA) — Horacio Fredriksson (A)
Ub Iwerks (F) — William B. Spooner (M)

ATLANTA SECTION

Carter, Roger A., A/V Sls. Mgr., Standard Theatre Supply Co. Mail: Rt. 1, Box 204K, McLeansville, N.C. 27301 (A)

Cox, Orris H., Mot. Pic. Prodn. Splst., U.S. Army Missile Command. Mail: 2020 Hansel Ave., S.W., Huntsville, Ala. 35802 (A)

Eubanks, A. J., Chf. Photog., WTWV-TV, Inc. Mail: P.O. Box II, Saltillo, Miss. 38866 (M)

O'Dell, Patrick, Chf. Photog., WSB-TV. Mail: 1569 Coolwater Ct., Decatur, Ga. 30033 (M)

Van Loh, David, Student, Bob Jones Univ. Mail: E-5 Kampus Kourt, Greenville, S.C. 29609 (S)

Weston, Jr., Jasper B., Engr., Scientific-Atlanta, Inc. Mail: 4202 Fontana Ct., Tucker, Ga. 30084 (M)

AUSTRALIAN SECTION

Ellson, John L., Cinemat. c/o Premier's Dept., Box 1008J, G.P.O. Adelaide, South Australia 5001 (M)

Jepson, Alex R., Chf. Engr., Atlab Film Laboratory Service. Mail: 6 Bristol Ave., Pymble N.S.W., Australia (M)

Porteous, Kip, Co-ordinator Program Film Prodn., Australian Broadcasting Commission. Mail: 108 Glenmore Rd., Paddington, N.S.W., Australia 2021 (M)

BOSTON SECTION

Fall, George G., Pres. & Gen. Mgr., Film Service Lab. Mail: 126 Washington Terrace, Whitman, Mass. 02382 (M)

Gilman, John R., Pres., August Sauter of America, Inc. Mail: Tiverton Four Corners, R.I. 02878 (A)

McGowan, K. D., Chf. of Engrg., RKO General. Mail: 5 Adrienne Rd., East Walpole, Mass. 02032 (M)

McMillan, Jr., Frank H., Photographer, The Industrial Lens, 42 Brown St., Kennebunk, Me. 04043 (A)

CHICAGO SECTION

Andrisen, James A., Chf. Engr. of Closed Circuit TV Studios, Illinois Bell Telephone Co. Mail: 5421 Webster, Downers Grove, Ill. 60415 (M)

Barr, Francis H., Assoc. Engr., ITT Electron Tube Div., 3700 E. Pontiac St., Fort Wayne, Ind. 46803 (M)

Calkins, Burdette B., Visual Communications Dir., Basin Electric Power Cooperative. Mail: Box 200, Bismarck, N.D. 58501 (A)

Eaton, Jr., William P., Student, Columbia College. Mail: 1101 Ashland Ave., Wilmette, Ill. 60091 (S)

Glanz, John, Designer, Peterson Enterprises. Mail: 4835 W. Cornelia, Chicago, Ill. 60641 (M)

Higbie, Jr., Fred G., Electronics Techn., Orion Broadcasting, Inc. Mail: 1618 Greentree Blvd., Apt. 30, Clarksville, Ind. 47130 (M)

Homberg, Robert, Chf. Photog., WITI-TV. Mail: 6340 W. Donges La., Brown Deer, Wisc. 53223 (A)

Offerman, Ron E., Field Engr., RCA Service Co. Mail: 4328 Woodland, Des Moines, Iowa 50312 (M)

Pratt, Robert K., Chf. Engr., KPLR-TV, 4935 Lindell Blvd., St. Louis, Mo. 63108 (A)

Rhee, James K., Maintenance Engr., Douglas Film Ind. Mail: 663 W. Grace St., Chicago, Ill. 60613 (M)

Sarantos, John, Student, Columbia College. Mail: 1925 N. Hudson, Chicago, Ill. 60614 (S)

Speheger, Stevan W., Chf. Engr., Biology TV Center, Purdue Univ. Mail: 50 La Crosse Court, Lafayette, Ind. 47905 (M)