

reasons for it. Goldy then itemized the use of film by the Denver Broncos in 1975 and the team's reliance on it. He described the various angles and shooting positions for a game and for practice. Gambold, defensive backfield coach of the Broncos, showed some films made by Goldy and Newell and explained the use made of the films by both coaches and players. The closing event of the meeting was the showing of the 1975 Bronco Highlight film. — Philip C. Vogel, Jr. (Secretary-Treasurer), Eastman Kodak Co., 5555 S. Trenton B-5, Denver, CO 80110.

**Rocky Mountain, 15 Feb.** — The meeting was held at Rockwell International's Rocky Flats plant with an attendance of more than 40 members and guests, in spite of security requirements including advance notification of names and addresses of everyone attending. The speaker was L. M. Steward of Rockwell International whose subject was "Technology and Energy." The presentation consisted of a multimedia talk. Ten slide projectors and two 16mm projectors were used. Steward discussed the development of technology and energy beginning with earliest mankind and up to and including nuclear technology. — Philip C. Vogel, Jr. (Secretary-Treasurer), Eastman Kodak Co., 5555 S. Trenton B-5, Denver, CO 80110.

**Pacific Northwest, 11 Mar.** — The meeting was held at the British Columbia Institute of Technology, Burnaby, B.C., Canada, with an attendance of 28 members and guests. The speaker was Frank Flemming of National Broadcasting Company who presented an explanation and demonstration of "Front Screen Projection for Television Special Effects." The system involves the use of front projection to project scenes behind actors on television. He also explained the "Double-Delta" system of using two projectors on the same optical axis with a single television camera to produce certain special effects. A lively question-and-answer period followed the demonstration. — C. Eugene Newcomer (Secretary-Treasurer), Pacific Northwest Bell, 1200 Third Ave., Seattle, WA 98101.

**Washington, 29 Jan.** — The meeting was held at the Goddard Space Flight Center with an attendance of 26 members and guests. Albert Whalen, who is with the applications section of NASA discussed the communication technology satellite which was launched in January 1976. Whalen explained that, as opposed to previously launched satellites, the new type of satellite can be used in conjunction with fairly inexpensive ground stations. To illustrate this, he reproduced a video picture using a 1-m portable receiving antenna. The 44,000-mi round trip from the auditorium and transmitter back to the portable receiving station produced a 1/4-s delay between the studio and the satellite monitor. Following the discussion and the demonstration, Whalen related anecdotes about the history of satellite instructional television. Everyone in the audience seemed to be impressed with NASA's new technology especially as it pertains to developing nations. — Charles F. Wilkinson, Jr. (Secretary-Treasurer), Eastman Kodak Co., 500 12th St., S.W., Washington, DC 20024.

**Washington, 12 Feb.** — The meeting was held at the Ramada Inn, Rosslyn, Va., with an attendance of 27 members and guests. Betsy Ashton of WMAL discussed the storage of videotape. She gave an account of experiences at WMAL resulting from improper storage of videotape. A lively question-and-answer period followed the presentation. The meeting was preceded by a dinner at the Ramada Inn. —

Charles F. Wilkinson, Jr. (Secretary-Treasurer), Eastman Kodak Co., 500 12th St., S.W., Washington, DC 20024.

**Toronto, 15 Mar.** — It was standing room only when some 100 members and guests jammed the studio of Madger Films to hear about and to see the facilities of Toronto's newest electronic laboratory — Motion Picture Video. The meeting was opened by Peter Elliott, Toronto Section Chairman. Jack Sinclair, Operations Manager of Motion Picture Video then introduced resident Bob Sher who outlined the aims and objectives of the new organization. Motion Picture Video specializes in 35mm and 16mm film-to-tape transfers and editing, tape-to-tape dubbing with editing and 16mm tape-to-film transfers.

The main presentations by David Pierdon and Jack Sinclair were performed by feeding videotape and camera outputs to an Advert large screen projector — a very effective method.

Pierdon described the Rank Cintel Mark III Flying Spot Color Telecine. This unit can handle 16mm or 35mm films with output of 625 or 525 standard video. It uses a capstan drive and servo system for film motion. Film can be shuttled from low speeds up to ten times normal in either direction for editing purposes. Pierdon also described the optics and electronics of the system.

Sinclair then outlined the capabilities of "Daisy," a custom built editing system designed by Ampex. The heart of the system is a Nova II computer, the peripherals for which include two floppy disc drives, paper tape reader/printer, keyboard, character display units, VTR controller, switches, and thermal printer. He then gave a demonstration of editing techniques using the computer.

The meeting ended with a conducted tour of the facilities. — R. J. Brule (Secretary-Treasurer), 3M Company, 790 Wellington St., London, Ont., Canada.

## Book Reviews

### Photographic Sensitometry

Hollis N. Todd. Published (1976) by John Wiley & Sons, Inc., 605 Third Ave., New York, NY 10016. 226 + x pp. Diagrams. 8½ by 11 in. Price \$14.95

For the serious student of photographic science, novice or advanced, this volume is of unquestionable value.

Divided into 13 main chapters, it covers a range from "Introduction of the Characteristic Curve" through a discussion of Logarithms, Contrast, Exposure Latitude, ASA Film Speed, Printing Paper Speeds and Tone Reproduction, to mention only a few.

The four appendixes include "Logarithms and Photography"; "Low Cost Sensitometry"; "Measurement of Light Sources"; and "Light Falling on a Surface." This makes the volume an excellent quick reference text for those involved to any extent in photographic work, as well as a valuable self-teaching manual for those desiring to brush up or to get involved right from the start.

The presentation is unique, in that having been designed primarily for self teaching, it states the objective at the beginning of each subject chapter, and proceeds to explain the data concisely.

Immediately after each presentation of a concept, a set of examples is given, with omissions in the sentence to be inserted by the student. The correct answers for the omitted words appear on the extreme right hand edge of the page, which the student is instructed to keep covered while attempting to provide the correct word. After each chapter, a self-test appears, followed by the correct answers.

Although this volume is primarily aimed at the serious beginner in black-and-white still photography, it should not be overlooked by anyone interested or involved in any technical place of photographic work, including those in

color and in cinematography. *Paul A. Kaufman*, Du Art Film Laboratories, Inc., 245 W. 55 St., New York, NY 10019.

### Electronics Engineers' Handbook

Ed. Donald G. Fink. Published (1975) by McGraw-Hill Book Company, 1221 Ave. of the Americas, New York, NY 10020. 2146 pp. 2026 illustrations. 6¼ × 9¼ in. Price \$42.50.

A large-scale authoritative survey of modern electronics engineering knowledge, this *Handbook* brings together in one instant-reference volume the essential principles, data, and design information on the components, circuits, equipment, and systems of all the specialties that make up the field of electronics engineering.

In the Preface, the Editor notes that this is the first handbook to be devoted to the field of electronics engineering at large; all important earlier handbooks dealt primarily with important applications such as radio engineering. This *Handbook* is considered a companion volume to the *Standard Handbook for Electrical Engineers*, also edited by Fink.

Preparing this book must have been a monumental undertaking. It has well over 2000 pages, almost as many illustrations, 340 tables, a million words of text, and 2500 bibliographic entries.

The aim of the *Electronics Handbook*, according to Fink is to contain in a single volume all pertinent data within its scope, to be accurate and comprehensive in technical treatment, to be used in engineering practice (as well as in study in preparation for practice), and to be oriented toward application rather than theory. Sections on basic principles are included, but the predominant thrust is the practical use of these principles in engineering practice.

The material has been contributed by 128 experts in their individual fields. The *Handbook*

is organized in four major divisions: *Principles Employed in Electronics Engineering*, Sections 1-5 inclusive; *Components, Devices and Assemblies*, Sections 6-11; *Circuits and Functions*, Sections 12-18; and *Systems and Applications*, Sections 19-27. The 138-page section devoted to the properties of materials is, to the Editor's knowledge, the most comprehensive compilation of data on materials used in electronics ever to appear in print.

Donald Fink has achieved his aim. No electronics library can be considered complete if it does not include this *Handbook*. — *Edit.*

## Handbook of Super 8 Production,

Mark Mikolas and Gunter Hoos, 750 Third Ave., New York, NY 10017. Published (1976) by United Business Publications Inc., 324 pp. Illus. 8 X 11 in. Softbound. Price \$14.95

In 1972 Gunter Hoos and Mark Mikolas left their jobs at the Rockland Children's Psychiatric Hospital to set up their own company, Super 8 Film Group. Since then they have been active in promoting the use of the super-8 format in professional filmmaking, as a "do-it-yourself" production medium. This book is intended mainly to assist newcomers to the medium, by providing a comprehensive resource for super-8 production know-how, showing the interdependence of the various elements in a film production, with the main emphasis on planning production projects.

Thirteen chapters and a section on "Resources: Super 8 Products and Services" cover the entire range of film production in super 8 from the original recording to projection or transfer to videotape, and additional material on animation, widescreen, underwater filming, etc.

The authors take a novel approach at the outset, in the first two chapters, where an overview is given of available options under the heading "Systems," and that most important aspect of film production, "Budgeting." In this chapter sample budgets are presented for three different types of productions to serve as points of departure in applying super 8 to specific film projects, in realistically weighing factors in decisions on film routes and production methods, and determining the inter-relationship of cost factors.

Other chapter headings are: Cinematography and Sound Recording; Preparing to Edit; Editing; Getting Sound Tracks Mixed and Onto Stripe; Print Making; Optical Printing, Effects and Blow-Ups; Striping, Treatment and Cartridging; Front Projection; Rear Screen; Production and Projection; Super 8: Videography and Broadcast.

Super 8 and video were made for each other, the authors claim. The flexibility, universality, relatively low production costs and amazingly high quality make super 8 an ideal color/sound origination medium. Converting the film image to an electronic image often results in a television picture that looks better than the original film.

The *Handbook* is profusely illustrated with excellent photographs, drawings, graphs and charts, and interspersed in the text are short essays contributed by filmmakers and others with a special interest in super 8.

Throughout the book the attitude towards super 8 is one of enthusiasm, typified by the following statements in the introduction to Chap. 3: "Shooting super-8 film is a joyful experience. More than one filmmaker, moving

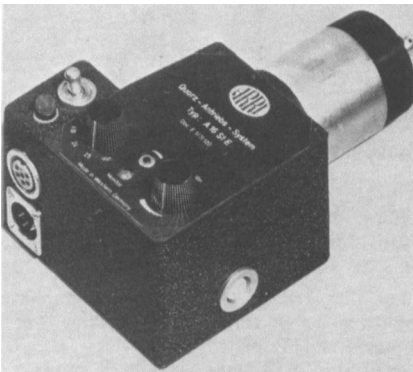
down from 16mm to super 8, has remarked on what a delightful experience it provides." There is a tendency to exaggerate, and overstate the capabilities of super 8, but on the whole the *Handbook* provides a wealth of information, especially helpful for newcomers to film production and those becoming involved with super 8 for the first time.

It would have been helpful if in Chapter 2,

under the heading, "Optimal Applications for Super 8," the authors had given more specific information on the limitations of the super-8 medium, but then, as they have said "In the main, those working in super 8 have found ways to use it as a valuable tool to do things in film that they could not, or would not, have done in 16mm or videotape." *Rodger J. Ross*, 3 Orchard Ave., Cobourg, Ont., Canada K9A 1S9.

# New Products & Developments

*Further information about these items can be obtained direct from the addresses given. As in the case of technical papers, the Society is not responsible for manufacturers' statements, and publication of these items does not constitute endorsement of the products or services.*

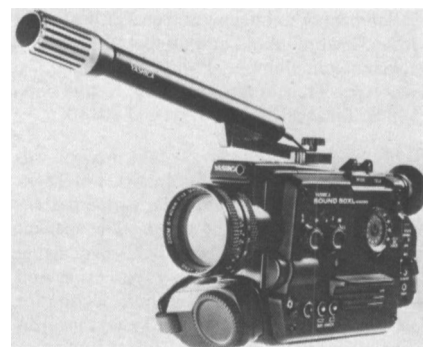


**An all-purpose, quartz-crystal regulated motor** for Arriflex 16S cameras, designed for operation from suitable 12-V dc power supplies, has been announced by Arriflex Company of America, Box 1102C, Woodside, NY 11377. The new motor can drive the 16S camera for virtually any practical filming assignment. For example, it can run the 16S at a synchronous 24 or 25 frames/s with an accuracy of  $\pm 1/2$  frame in a 400-ft take. It can also develop a 50 Hz or 60 Hz pilotone output. No separate pilotone generator is required.

Features include a selector switch and rheostat combination that allows the motor to run at variable speeds from 10 to 50 frames/s. The motor can also be set for single-frame operation allowing the camera to be used for basic animation work and for time-lapse applications. The motor can be switched for either forward or reverse operation and is designed to stop with the camera mirror shutter invariably in the viewing position.

A standard 16S used exclusively with 100-ft daylight spools would require no modification. In most other cases it would be necessary to replace or convert the 8-V torque motor for the magazine to 12-V dc. Price of the Arriflex Crystal Motor is \$2040.

**The Yashica Sound 50XL Macro**, a new super-8 sound movie camera with macro-focusing and low-light capabilities, has been announced by



Yashica Inc., 411 Sette Dr., Paramus, NJ 07652. Features include a super-fast  $f/1.2$  Yashica zoom lens and a  $218^\circ$  shutter slot. The 50XL is keyed for high-speed 160 ASA daylight and 250 ASA tungsten type films as well as for Type G and slower films. The filming speed is 18 frames/s with sound or silent film cartridges. Other features include a footage counter linked to a filming time calculator for accurate measuring of the length of a scene. There is also a provision for manual zooming. Price of the 50XL is about \$500.

**Three super-8 sound-on-film movie cameras** have been announced by Minolta Corp., 101 Williams Dr., Ramsey, NJ 07446. Designated the XL-660, XL-440 and XL-225, the cameras can be used to film synchronized sound movies without special lighting or separate recording equipment. Each camera records the sound on film as it takes the picture and automatically controls both the exposure and the recording level. Each model has a power-zoom lens, an information-center finder and external run light. The XL-440 and XL-660 models offer 4X and 6X zooming. In addition to directional sound pickup a number of optional accessories enable both conventional and wireless recording and mixing of various combinations of microphones and/or other audio sources. Prices are: XL-660, \$400; XL-400, \$360; and XL-225, \$300.

**The 2143XL**, a super-8 silent movie camera, has been announced by Bell & Howell/Mamiya Co., 7100 McCormick Rd., Chicago, IL 60645. Features include a full-time dual-speed push-button power zoom with manual lever; a manual exposure override to obtain a variety of special exposure effects and an exposure meter "trim" control; filming speed of 18 frames/s with in-