

## BOOKS BOOKLETS AND BROCHURES

**Erratum:** *Anthropometry of Common Working Positions*, by M. Alexander and C. E. Clauser, is available from Clearinghouse, U.S. Department of Commerce, Springfield, Va. 22151, on Order No. AD 632 241. The Order No. was erroneously given as AD 631 457 on p. 938 of the September 1966 issue of the *Journal*. Price of the book is \$3.00 (microfiche 75 cents).

**Data for the Acoustic Design of Studios**, by A. N. Burd, C. L. S. Gilford and N. F. Spring (*BBC Engineering Division Monograph*, No. 64, November 1966), is intended as a guide to the use of sound absorbing materials for the control of reverberation times in sound and television studios. The 20-page monograph includes data on sound absorption coefficients, preferred reverberation times of studios and a table giving values of  $-\log_e(1 - \alpha)$ . Tables of absorption coefficients for frequencies (Hz) ranging from 62 to 8000 are given for: (A) Structural Absorption Coefficients; (B) Common Building Materials; (C) Air Absorption at 20 C; (D) Audience, Orchestra, Seats, etc.; (E) Hangings, Floor Coverings and Furnishings; (F) Low-

Frequency Membrane Absorbers (including roofing felt units, bonded hard-board and roofing felt units and "Aberdeen" absorbers); (G) Proprietary Acoustic Tiles and Boards; (H) Porous Blankets; (J) Perforated-Board Faced Absorbers; and (K) Stretched-Fabric Faced Absorbers. The monograph also includes graphs of absorption characteristics of typical materials. It is available from BBC Publications, 35 Marylebone High St., London W.1, England at a price of 5s.

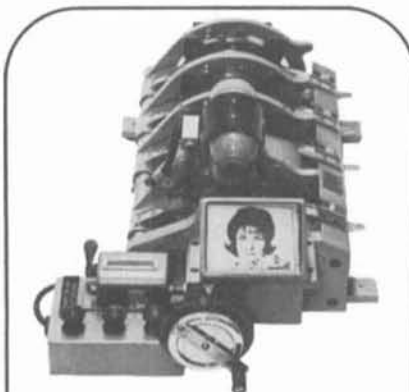
**Automatic Monitoring**, by F. A. Peachey (*BBC Engineering Division Monograph*, No. 62, April 1966), gives a general survey of automatic monitoring practices in both sound and television. Included is a discussion of the philosophy of automatic monitoring and principles of new monitors are described. The 16-page monograph includes an appendix listing principal monitors in use on the BBC network. The monograph is available from BBC Publications, 35 Marylebone High Street, London W.1, England. It is priced at 5s.

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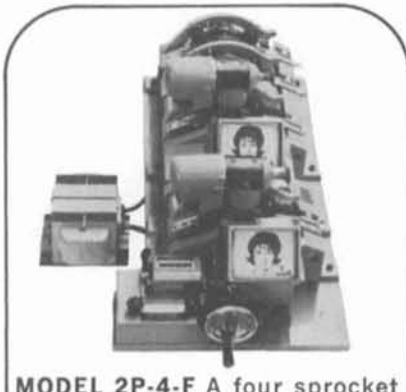
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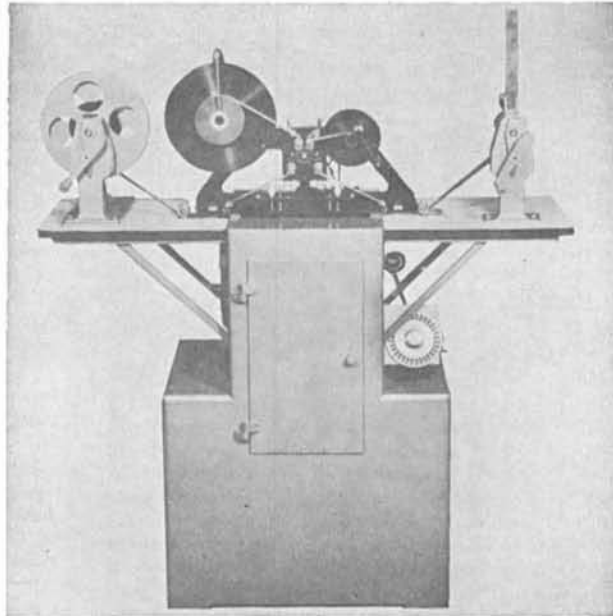
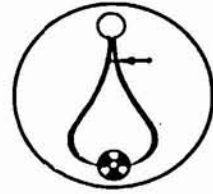
Sound and vibration measuring equipments are described in a 24-page illustrated brochure (Bulletin 797-J) available upon request from General Radio Co., West Concord, Mass. 01781. New instruments described in the brochure include a tape data recorder, a sound-level calibrator for instrument microphones, a 1% bandwidth wave analyzer, a dial drive for stepped 1/3-octave-band analysis, and an octave-band analyzer which can also make A-weighted sound-level measurements.

A user-assembled, prefabricated custom console, Model 9200, is described in engineering bulletin AL-1728, available upon request from Glenn Malme, Altec Lansing, 1515 South Manchester Ave., Anaheim, Calif. 92803. The console is supplied as a basic cabinet together with hardware and is assembled in modules. The instrument panel has provisions for a maximum of eight meters plus room for patch panels and switch assemblies.

Sound systems for stadiums and sports arenas are described in detail in a brochure available from Altec Lansing, a division of Ling Altec, Inc., 1515 S. Manchester Ave., Anaheim, Calif. 92803. Problems encountered during the installation of sound systems in the Astrodome at Houston, Tex., and in the Anaheim Stadium are described.

**Handbook of Noise Measurement (6th ed.)**, by Arnold P. G. Peterson and Ervin E. Gross, is available from General Radio Co., West Concord, Mass. 01781. The 282-page book has been extensively revised and the material rearranged by application areas and cross-indexed for accessibility. Topics related to noise and vibration are discussed in detail including definitions, characteristics, measuring units and psychological and physiological effects of noise on humans and their activities. A new section describes noise-measuring instruments and activities. The book is priced at \$1.00.

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**Professional microphones** and related equipments are illustrated and described in a 6-page catalog available from Shure Brothers, Inc., 222 Hartrey Ave., Evanston, Ill. 60204. The catalog includes specifications for all the microphones in the Shure line.

**The Catalog of Production Background Music** (9th ed.) is available from Thomas J. Valentino, Inc., 150 W. 46 St., New York, N.Y. 10036. The Major Mood Music Library contains 50 hours of music on either records or tape. The Major Sound Effects Library contains 12 sound-effects albums containing 386 sound effects.

**Du Pont Films for Instrumentation/Motion Pictures** is a 38-page, 8½- by 11-in. brochure presenting useful data on Du Pont films. It is available upon request from James D. Barhydt, Public Relations Dept., E. I. du Pont de Nemours & Co., Wilmington, Del. 19898. Tables, diagrams and spectrograms are included in the illustrated brochure. Reference tables on pp. 2, 3 and 4 of the brochure offer a guide to all Du Pont films including negative, reversal, special purpose and laboratory stock. A "general information" discussion of Cronar® polyester film base is presented as an introduction to discussions of special types of Cronar films. Separate data pages, arranged in numerical sequence, according to film type, provide complete information about exposure, processing and sensitometry of each Du

Pont film. The brochure also contains charts listing sizes available, core and spool characteristics, dimensions, stop rule figures, filter data, rapid reversal processing procedure, formulas for processing chemicals and a simplified sensitometric test.

**Handbook of Telemetry and Remote Control** presents the fundamentals of information theory plus a practical treatment of telemetry practice to provide a basis for the design work of the telemetry engineer. Editor-in-Chief is Elliot L. Gruenberg. The book contains 1,298 pp. plus index and 1,066 illustrations. It is priced \$35.00 and is available from the publisher, McGraw-Hill Book Co., 330 W. 42 St., New York, N.Y. 10036.

**Synchros and Servos**, by Robert Britte and Carlo Fiorenelli (published (1967) by Howard W. Sams & Co., 4300 W. 62 St., Indianapolis, Ind. 46206, Price, \$4.95) is intended to provide technician-level information about circuitry, basic function, application, maintenance and troubleshooting. The 192-page book gives the basic principles of synchro and servo motors and generators and gives the uses for these devices. It also presents the theory and operation of discontinuous, continuous, open-cycle, and closed-cycle control systems in basic terms and includes questions and answers for study and review.

**Strobotactics** is a new quarterly publication published by General Radio Co.,

West Concord, Mass. 01781, and available upon request. It is devoted to stroboscopic motion analysis, tachometry and high-speed photography.

**A new series of Schott Absorption Color Filter Glasses** are described in an illustrated bulletin, No. 3504, Part I and Part II, available from Fish-Schurman Corp., 70 Portman Rd., New Rochelle, N.Y. Part I gives information on new developments and new designations of the WG and GG types, which are colorless glasses having sharp cuts in the spectral region from 230 to 395 nm. Part II describes temperature colored glasses with sharp cut and infrared-transmitting black glasses. The bulletin includes tables and graphs.

**Hasselblad Magazine** is available from Paillard Inc., 1900 Lower Rd., Linden, N.J., at a subscription rate of \$2.00 for four issues. A catalog of all Hasselblad equipment is available without charge. Also available upon request are various publications, including *Photography Through the Microscope*, *Reproduction*, and a special report on all Hasselblad lenses.

**The Soviet Journal of Optical Technology** is now available in translation (English) from Optical Society of America (OSA), American Institute of Physics, 335 E. 45 St., New York, N.Y. 10017. Volume 33 (1966) will be published in a single bound volume and will be available



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in the fall of 1967. It will be priced at \$25. Yearly subscriptions are also available at a price of \$25 (\$12.50 to OPA members). The journal is published by Vavilov Optical Research Institute, USSR. Contents of the January/February issue (Vol. 34, No. 1) cover reports on theoretical and experimental studies, optical design and new instruments. There are also sections on new books, optical glasses, technology, results of industrial studies, and others.

**Motion Pictures in Medicine/Research**, one of a special series of reprints from *Bolex Reporter*, a twice-yearly publication of Paillard Inc., 1900 Lower Rd., Linden, N.J. 07036, contains seven informative articles on techniques used in various specific assignments. A number of well-chosen illustrations add interest to the articles.

"Operating Room," by Ely I. Bergmann describes the equipment used and the special problems involved in filming an operation. He mentions an important notation on the motion-picture production schedule, "No retakes are possible . . ." Another illustrated article, also by Mr. Bergmann, "Forensic Pathology," describes in detail the autopsy of a man killed in a car accident. "Medical Research," by Jewell Plummer Cobb and Dorothy A. Walker describes time-lapse cell studies in cancer research. "Filming the Fundus," by Don Wong describes a film made to show the effects of freezing on the retina. A special camera, called the fundus camera, is used to photograph the fundus (the innermost part of the eye). Other articles in the reprint include "Filming Through the Microscope," by James M. Klinkhamer; "Exposure Automation," (Anon.); "Time Lapse," by Ernst Wildi; and "Biomedical Research," by Gottlieb L. Schneebeli.

The reprint is available upon request from Paillard Inc. *Bolex Reporter* is available by subscription at \$2.00 a year.

**A Student's Guide to Careers in Motion-Picture Production (C3-16)** is an illustrated leaflet which describes a number of fields, other than the "Hollywood" facet of the industry, in which the young film-maker may find a successful career. The leaflet was published by Eastman Kodak on behalf of the University Film Producers Association. It is available from Dept. 454, Eastman Kodak Co., Rochester, N.Y. 14650. Also available is a list of audio-visual publications of special interest to students (Pamphlet No. S-10).

**Czechoslovakian scientific films** that can be ordered for noncommercial use from Czechoslovak Filmexport, Václavské nám. 28, Praha 1, are listed in an illustrated catalog. Descriptions include titles (most of them in English), running time and price. Categories include Archeology, Astronomy, Biology, Chemistry, Geology, Informative Films, Medicine, Phonetics, Technics and Water Economics. The catalog is available upon request from Československé Společnost pro Vědeckou Kinematografii při Československé Akademii Věd (Scientific Film Laboratory of the Czechoslovak Academy of Sciences) Brno, Botanická 8, Czechoslovakia.

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A folder listing various purchasable educational items is available from Publications Office, National Association of Educational Broadcasters, 1346 Connecticut Ave., N.W., Washington, D.C. 20036. Materials listed include recordings, bibliographies, conference and workshop reports, periodicals and teaching materials kits.

SCSD: The Project and the Schools is a report by Educational Facilities Laboratories, 477 Madison Ave., New York, N.Y., on a new systems approach to school construction. The report describes the School Construction Systems Development project (SCSD) in California, six of the 13 schools to be built under the proj-

ect, and the spread of the systems concept to other parts of the United States and Canada. The project involved the development of a system of modular, pre-engineered components — a structural system, ceiling and lighting components, air-conditioning units, interior partitions (fixed, demountable and operable), cabinets and laboratory stations and student lockers. Other elements of the building, including exterior walls are put up in conventional fashion. Thus, despite the use of industrialized components, architects retain design freedom. No two systems buildings need look alike or have the same layout. The components are designed to meet specific educational requirements, to be compatible with each other and to

provide maximum flexibility of space within the building to accommodate future changes in teaching patterns, methods and technology.

A new edition of F&B/Ceco Motion-Picture Equipment Rental Catalog has been published by F&B/Ceco, Inc., 315 W. 43 St., New York, N.Y. 10036, and is available upon request. The 48-page catalog lists over 2,600 items ranging from film splicers to 1,500-A generator trucks. Separate sections list 16mm and 35mm cameras, camera accessories, sound, editing, projection, lighting and grip equipment.

Audio-visual materials are listed and described in an illustrated catalog available from American Book Co., 55 Fifth Ave., New York, N.Y. 10003. Listings of records, tapes, slides, filmstrips, etc., are included.

The Audio Visual Source Directory, Spring 1967 Ed., is available from Motion Picture Enterprises Publications, Inc., Tarrytown, N.Y. 10591, at a price of \$1.00. Sources for more than 35 different categories of audio-visual materials and equipments are given. Dealers names and addresses are listed alphabetically under each section.

The Professional Make-Up Artist is published bi-monthly as a service to professional make-up artists and beauty personnel by Research Council of Make-Up Artists, Inc., 52 New Spaulding St., Lowell, Mass. The publication is available to others by subscription at \$5.00 a year. New professional make-up items listed and described in a recent issue include a series of RCMA KC Color Process Foundation Colors, with six new shades designed specifically for Negro complexions, ranging from tan to deep brown in increasing steps. Other items include a freckle cream for adding "natural beauty spots" and a new lightweight neutral powder which replaces the old RCMA neutral and translucent powder.

Trends in Small Format Film: Application and Design, by Nat C. Myers, Jr., and Raymond G. Hennessey, and "Automatic Cartridge 8mm Sound Film Applications in Industry, Medicine and Government: Yesterday, Today and Tomorrow" by Nat C. Myers, Jr., are available as illustrated booklets from Fairchild Industrial Products, 221 Fairchild Ave., Plainview, L.I., N.Y. Both papers were presented at the Society's 101st Conference in New York. An earlier paper, "Automatic Cartridge 8mm Sound Film Applications in Education: A Progress Report," by Nat C. Myers, Jr., is also available. This paper appeared in the November 1966 issue of the *Journal*.

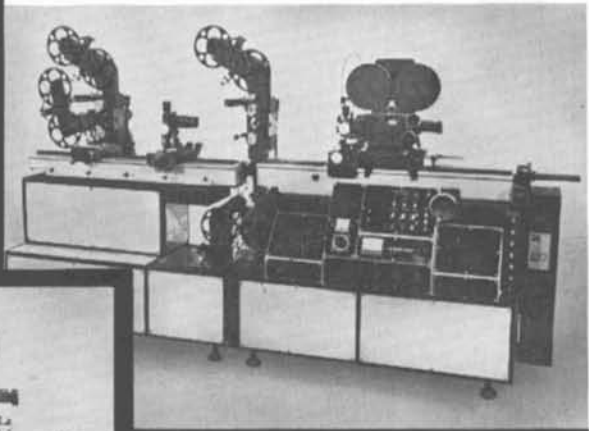
The 16mm Product Buying Guide has been published as a special issue of *Bolex Reporter* and is available upon request from Paillard Inc., 1900 Lower Road, Linden, N.J. 07036. The 32-page *Guide* is divided into sections covering cameras, lenses accessories and projectors. A catalog of equip-

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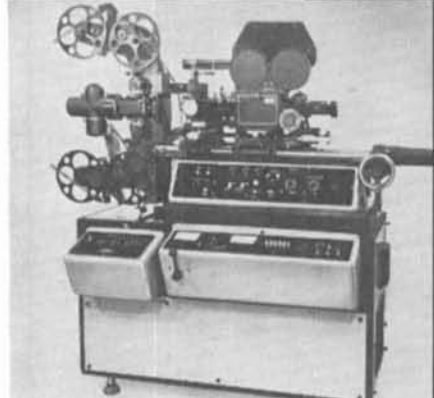
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ments is prefaced by descriptions of various applications for Bolex 16mm cameras.

**The Audio-Visual Equipment Directory** (13th ed., 1967) has been revised and updated. Some 2,000 different pieces of equipment are described and more than 840 photographs of equipments are included. Prices are given for each model. New equipments described in the new *Directory* include video-tape recorders; various kinds of learning laboratories, in addition to those built specifically to teach languages; 8mm and 16mm motion-picture projectors; tape recorders and programed instructors. The 8½-by 11-in. directory contains 345 pages and 27 illustrated sections. It also lists sources for audio-visual accessories and devices and contains various charts and tables. It is available from National Audio-Visual Association, 3150 Spring St., Fairfax, Va. 22030. It is priced at \$6.00 (\$5.50 if payment accompanies order).

**The 1967 Lighting Handbook** and a lamp slide rule are available from Sylvania Electric Products Inc., 1100 Main St., Buffalo, N.Y. 14209. The 82-page, pocket-size handbook includes a guide to Sylvania's line of tungsten-halogen lamps and other useful information, such as a glossary of lighting terms, charts, graphs and tables. The slide rule shows how lamp characteristics, such as color temperature, lamp life, and wattage can be affected by voltage changes and can be used to calculate these changes.

**The Transliteration of Modern Russian for English**, by J. Thomas Shaw, deals in a practical fashion with the problem of transliterating the Cyrillic alphabet. It is recognized that no one system can serve all purposes adequately, since different types of readers have different needs and what is suitable for one publication may be unsuitable for another. To meet the needs of a variety of publications, this 16-page booklet presents four systems. System I is suggested for handling personal and place names in works intended for the general public. System II, the Library of Congress system for modern Russian, is suggested for works directed primarily at specialists in the social and natural sciences. System III is for an international audience of linguists and literary scholars, and System IV, the Library of Congress system with diacriticals, is recommended when rigorous precision is required. Prof. Shaw is Chairman of the Department of Slavic Languages at the University of Wisconsin. He is the translator of *The Letters of Alexander Pushkin*. The booklet, published by the University of Wisconsin Press, is priced at \$1.00.

The publications listed below are available from Clearinghouse, U.S. Department of Commerce, Springfield, Va. 22151. Unless otherwise noted each report is \$3.00 (microfiche 65 cents).

AD-465 678, *Propagation of Sound in Air: A Bibliography With Abstracts*, J. W. Wescott and S. S. Kushner. 636 pp. Compilation of several thousand abstracts from unclassified literature. Subject is treated in depth for the years 1929 to 1963. Some abstracts on earlier works of lasting interest and many



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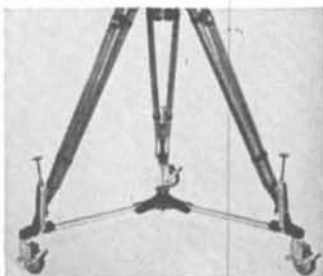
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abstracts from English translations of foreign journals are included.

NASA CR-647, *Absorption of Sound in Air Versus Humidity and Temperature*, C. M. Harris. 241 pp. Results of 2,800 measurements made at third-octave frequency intervals from 2,000 Hz to 12,500 Hz at each of six temperatures in the range from -0.5 to 25.1 C at normal atmospheric pressure are presented in tabular and graph form. These data are compared with those of past investigations and a "best fit" is obtained to existing data. The results make it possible to evaluate the effects of air absorption over a range of environmental conditions encountered in practical problems in acoustical engineering.

AD-640 921, *Effects of Overpressure on the Ear*, A. E. Hirsch. 14 pp. Discusses upper tolerance level for noise damage to the ears.

AD-639 109, *Pitch Perception*, R. B. Lawson. 73 pp. A comprehensive review of auditory theory and research that bear directly or indirectly on pitch perception. Three major points of view are presented: (1) a review of the history of pitch-perception studies and a description of some of the representative theories of hearing they have engendered; (2) an examination of various auditory phenomena in the light of how well the different theoretical positions can explain them; (3) an attempt is made to collate physiological and anatomical findings about the auditory nervous system and to use the facts which emerge to test the adequacy of theoretical concepts and explanations. The 213 references listed at the end of the paper include studies of both humans and animals.

AD-646 258, *A Study of Shape Recognition Using the Medial Axis Transformation*, O. Philbrick. 38 pp. Describes a transformation by which shape description properties may be extracted from an arbitrary shape. Also examines properties of the transformation as applied to shape recognition, and discusses how these properties may best be used for this purpose.

PB-174 288, *Development of VHF and UHF Propagation Curves for TV and FM Broadcasting*, J. Damelin, et al. 42 pp. Presents data and background material leading to the development of improved field strength propagation curves in the VHF and UHF bands.

AD-650 343, *Satellites and Future Communications, Including Broadcast*, J. L. Hult. 23 pp. Discusses regulatory and policy exigencies, including arguments for eliminating monopoly extensions to terminal ownership and the importance of domestic satellite development, the economic control of spectrum usage, and other factors in communications development.

AD-649 468, *Criteria for Evaluating the Effectiveness of Library Operations and Services, Phase I: Literature Search and State of the Art*, C. J. Wessel and B. A. Cohrsen. 399 pp. Summarizes the findings of a search in the library and management sciences literature to determine the standards and methods of evaluating the efficiency and effectiveness of library services and operations.

AD-651 630, *Associative Adjustments to Reduce Errors in Document Screening*, E. C. Bryant, et al. 78 pp. Considers associative adjustments to a document file as a means

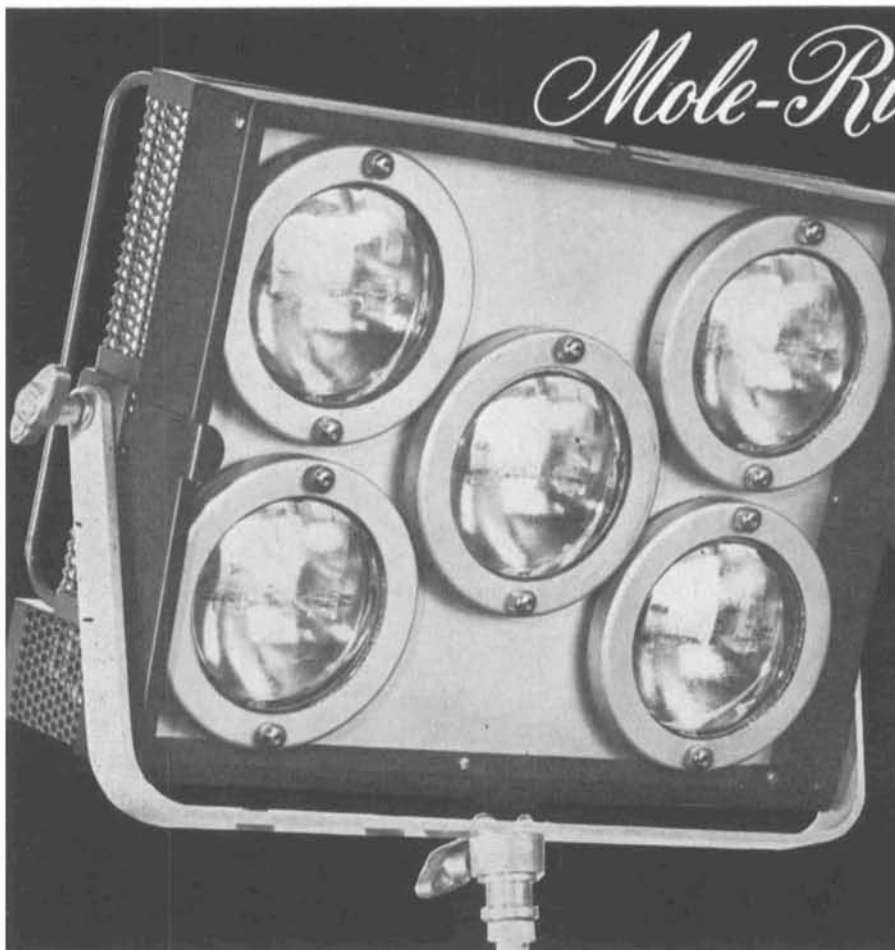
for improving retrieval. Definition and theory of the statistical properties of a generalized mismatch measure are presented, and improvements in retrieval resulting from performing associative regression adjustments on data file are examined.


AD-650 718, *Introduction to the Theory and Applications of the Remapper*, F. Ollendorff and E. Hirsch. 65 pp. Study of an electronic analog computer capable of reconstructing figures, graphs and shapes in three- or higher-dimensional spaces from two-dimensional projections given in the form of drawings, slides, or photographs. Main emphasis is on application to the interpretation of bubble-chamber photographs.

N 67-19022, *Significant Achievements in Space Science 1965*, A. G. W. Cameron, et al. 218 pp. Describes significant scientific progress in the following areas: Astronomy, Ionospheres and Radio Physics, Particles and Fields, Planetary Atmospheres, Planctology and Solar Physics. (Paper copy \$1.00, microfiche, 65 cents.)

N 67-18724, *Significant Achievements in Space Applications 1965*, D. P. Rogers, et al. 89 pp. Summarizes space applications in 1965 in Communications, Geodesy and Meteorology. (Paper copy 45 cents, microfiche, 65 cents.)

AD-648 463, *Bibliography of Lunar and Planetary Research 1965*, J. W. Salisbury, Ed. 183 pp. Gives both subject and author listings. Major subject categories are: astrobology, comets, meteorite craters and cratering effects, meteors and meteorites, the moon, origin of the solar system, the planets and tektites.

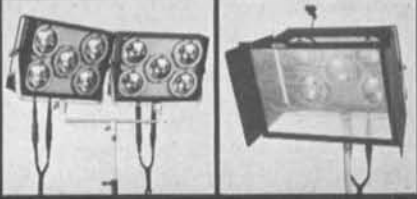


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An illustrated folder which gives a step-by-step demonstration of how to prepare color television slides using the 3M brand Color-Key overlay is available upon request from 3M Company, Dept. of Communications, 2501 Hudson Rd., St. Paul, Minn. 55119. The 0.002-in. polyester base sheeting is made in a range of standard colors, and is imaged through exposure to negative or positive film under any form of ultraviolet light in a conventional vacuum or contact frame. A single developer is swabbed over the exposed sheet to remove non-image areas before rinsing with water and drying. Originally, Color-Key was used mainly for titling over illustrations and photographs, but other uses have been found. For example, the transparent version of the sheeting

can be used as an intermediate to insert color over art, and opaque white can be colored with water-base dyes to give a wide variety of color selection.

**Colorimetric Analysis of Interference in Colour Television**, by K. Hacking (*BBC Engineering Monograph*, No. 60, February 1966), reports a study of the effects of perturbing one or more of the primary stimuli in three-primary additive color systems from which formulas have been developed for computing the magnitude of these effects. The 28-page monograph is illustrated with 19 diagrams plus a black-and-white photograph and a full-page color illustration. An early subjective experiment designed to estimate the possible advantage

to be obtained by adopting the constant-luminance principle in a color television system (the Bailey experiment) is examined in detail. A theoretical reconstruction of the experiment shows that recent measurements of the visual sensitivity ratio (luminance/chromaticity) for spatial color variations of sinusoidal form are in substantial agreement. A 10-page Appendix describes how these measurements are obtained. The monograph is available from BBC Publications, 35 Marylebone High St., London W.1, England. It is priced at 5s.

**The Universal Colortec**, Model 1012, is described in an illustrated leaflet (brochure No. V126) available from Ampex Corp., Mail Stop 7-14, 401 Broadway, Redwood City, Calif. 94063. The Colortec is a direct color recovery system for NTSC, PAL and SECAM high-band recording use.

**Complete television communications systems** for conventions, exhibits, seminars, etc., are described in a folder available from ITV Presentations, Inc., 342 W. 40 St., New York, N.Y. 10018. Television equipments and systems described in the folder are available on rental, lease or sale arrangements.

**A number of brochures and bulletins** (listed below) are available from Ampex Corp., Mail Stop 7-14, 401 Broadway, Redwood City, Calif. 94063. Brochure No. V117 describes the VR-3000 battery-operated broadcast video-tape recorder/camera combination. Bulletin T133 sets forth the performance characteristics of Ampex 600 Series professional audio tape. Bulletin V118 describes video and pulse distribution amplifiers for broadcast and closed-circuit television use. Bulletin V121 describes the Amtec time element compensator. Bulletin V111 describes the series 321 vidicon camera chain which is fully automatic and designed for use in severe environmental conditions. Bulletin V114 describes a variety of broadcast television monitors, and Bulletin V115, the Mark II Editec system.

**Head alignment systems** and detector kits for VR-2000 video head tip inspection microscope are described in Bulletin No. V113 available from Ampex Corp., Mail Stop 7-14, 401 Broadway, Redwood City, Calif. 94063. The two kits are intended to provide an easy, self-contained method for inspecting video heads without the use of an external sweep generator.

**Transistor Specifications Manual** (2d. ed.), compiled by Howard W. Sams Engineering Staff, lists electrical and physical parameters of about 6,000 transistor types and also lists manufacturers of the various types. Essential electrical data required to determine the suitability of a transistor for a specific circuit are listed. Each transistor listing is keyed to an outline drawing that provides the physical measurements necessary to install the unit or to determine whether the transistor will meet a particular set of mounting requirements. A list of transistor manufacturers is included. The 224-page book, published (1967) by Howard W. Sams & Co., 4300 W. 62 St., Indianapolis, Ind. 46206, is priced at \$2.95.

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