books reviewed

Motion Picture Production Facilities of Selected Colleges and Universities

A Survey by the University Film Foundation Reported by Don G. Williams and Luella V. Snyder for the Foundation. Published (1963) by the Office of Education, U.S. Department of Health, Education, and Welfare (OE-51005, Bulletin 1963 Number 15). Superintendent of Documents, U.S. Government Printing Office, Washington 25, D.C. 345 pp. Illustrated. 6 by 9 in. Price $1.25.

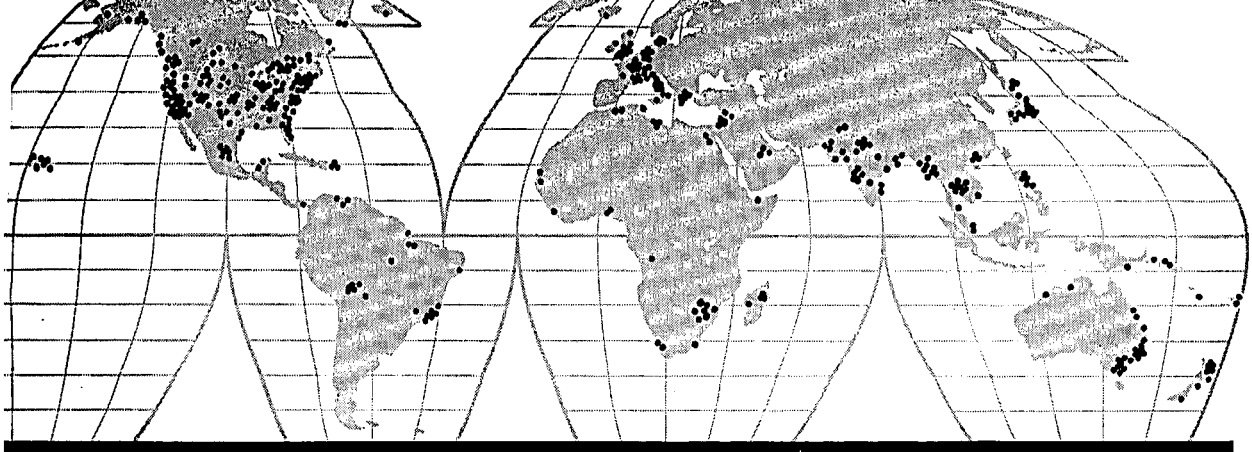
This is the first book that provides a comprehensive overview of a unique American contribution to education — the university-based motion-picture production unit. Just as university presses have attempted to publish scholarly works that would not otherwise appear in print, so on-campus film units are today tending to produce motion pictures aimed at improving instruction.

The present study was made possible through a research contract from the U.S. Office of Education pursuant to Title VII of the National Defense Education Act. The purpose in undertaking it was to collect and organize comprehensive information about the facilities available for the production of educational, research and scientific motion pictures at colleges and universities in the United States. The extent of these facilities is not widely recognized. Many units are not well-known even on their own campuses, nor is the university film movement, as a whole, familiar to foundations, government agencies, and professional associations which are concerned about the need for improving the quality of education in the United States.

For example, few persons within the motion-picture industry itself would know that during the academic year 1959–60 the approximately 80 university film production units turned out 3,231 reels of product, primarily 16mm.

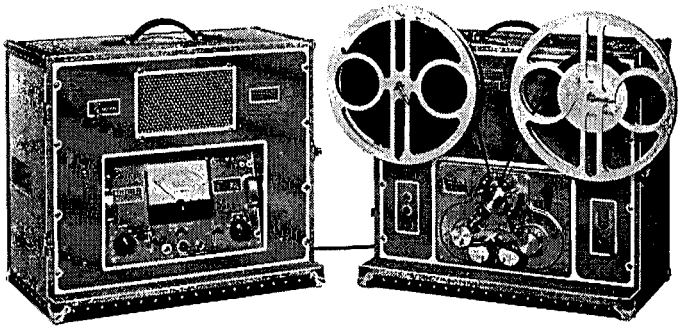
Professor Williams, Miss Snyder, and the trustees of the University Film Foundation deserve credit for amassing a wealth of statistics and helpful information about the status and problems of these units.

It would appear that the economic justification for these units is inextricably linked with the academic status of the motion-picture medium itself. As individual members of the units achieve graduate degrees and fulfill the traditional requirements for academic advancement, so will their prestige increase on campus, thereby winning for film a support too often now denied.



"More motion pictures are produced with Magnasync Type 5 Recorders than with any other recorder in the world!"

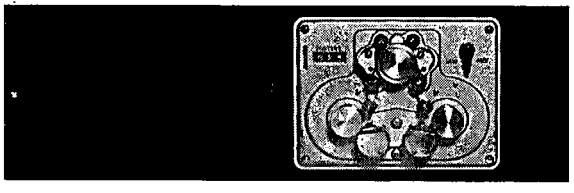
Versatility, precision engineering, nonobsolescence and rugged dependability made the Type 5 the most popular recorder in the world, and the basic ingredient of an integrated sound system to meet every recording requirement.



1. Choice of motors for 110 volts, 220 volts, 50 cycle, 60 cycle, single phase and three phase.
2. Selsyn motor attachments for Magnasync, RCA or Westrex distributor systems.
3. Selsyn or mechanical projector interlocks available.
4. Fast forward and fast rewind.
5. Portable; standard panels also permit rack mounting.
6. Complete line of companion equipment available.
7. Five distinct models to suit all film sizes and speed requirements.

from **$1650**

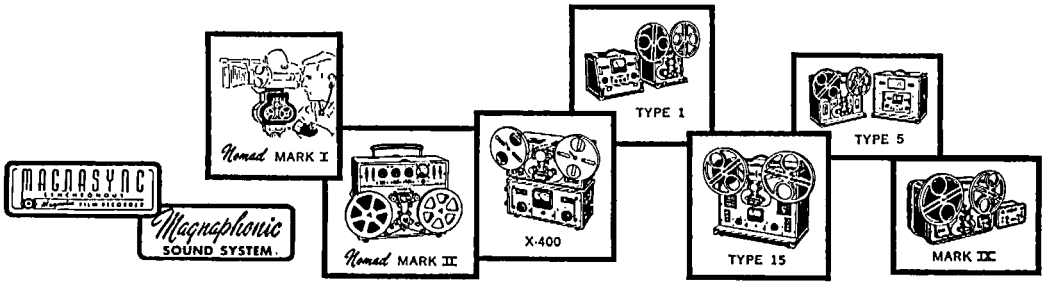
Wire, write or phone for free 42-page catalog describing Magnasync's complete line of equipment and accessories



The rugged, precision film transport is the heart of every Magnasync/Magnaphonic professional recorder. This famous "Synkinetic Motion" filtering principle, an original Magnasync concept, has contributed to the firm's international leadership in the field.

MAGNASYNC CORPORATION

5548 Satsuma Avenue, North Hollywood, California • TRiangle 70965 • Cable "MAGNASYNC"



AUTHORIZED DEALERS:
CHICAGO, ILL.
Behrend Cine Corp.
161 E. Grand, MI 2-2281
Zenith Cinema Service, Inc.
3252 Foster, IR 8-2104
DALLAS, TEXAS
Producers Services, Inc.
4519 Maple Ave.
Southwest Film Labs
3024 Fort Worth St.
DAYTON, OHIO
Salem Camera Co.
335 Salem, BA 3-7206
DENVER, COL.
Western Cine Service, Inc.
312 S. Pearl, SH 4-1017
HIALEAH, FLA.
Camera Equipment Co., Inc.
51 E. 10th, TU 8-4064
HOLLYWOOD, CALIF.
Birns & Sawyer Cine Equipment
6424 Santa Monica, HO 4-5166
Camera Equipment Co., Inc.
6510 Santa Monica, HO 9-5119
S.O.S. Photo-Cine-Optics, Inc.
6331 Hollywood, HO 7-9202
HOUSTON, TEXAS
Cine Associates
P.O. Box 98, Bellaire
KANSAS CITY, MO.
Barnard's, 4724 Broadway,
Country Club Plaza, LO 1-7761
Crick's Camera Shop
6320 Brookside Plaza, HI 4-3390
MINNEAPOLIS, MINN.
Century Camera Shops, Inc.
26 S. 7th, FE 8-5857
NEW YORK CITY
Camera Equipment Co., Inc.
315 W. 43rd, JU 6-1420
Florman & Babb, Inc.
68 W. 45th, MU 2-2928
Pictronics Corporation
236 E. 46th, YU 6-3713
S.O.S. Photo-Cine-Optics, Inc.
602 W. 52nd, PL 7-0440
PHOENIX, ARIZ.
Wilson Camera Sales Co.
130 W. Adams, AL 4-0662
ST. LOUIS, MO.
Stanley Photo Service
106 N. Broadway, CE 1-7840
SAN FRANCISCO, CALIF.
Brooks Cameras, Inc.
45 Kearny, EX 2-1902
SAN MATEO, CALIF.
Foreman's
121 Fourth Ave., DI 3-1869
CANADA, Islington, Ontario
Alex L. Clark, Ltd.
3751 Bloor St., W.
SOUTH AFRICA
Photo Agencies Pty. Ltd.
9 Kerk St., Johannesburg
SOUTH RHODESIA, Salisbury
William Over & Co. Pvt. Ltd.
Kingsway & Manica Road
BOLIVIA, La Paz
Casa Kavlin
Casilla 500, Calle Potusi 261-263
BRAZIL, Rio de Janeiro
Mesbla, S.A.
Rua do Passelo 42/56
ASIA:
AUSTRALIA, Sydney
Sixteen Millimetre
Australia Pty. Ltd.
49 Market, New South Wales
BURMA, Rangoon
G.K. Theatre Supply Co., Ltd.
123 Sule Pagoda Road
HONG KONG
Supreme Trading Co.
60 Hennesy Road
INDIA, Bombay
Kine Engineers
26, New Queen's Road
JAPAN, Tokyo
J. Osawa & Co., Ltd.
5, Ginza, Nishi 2-Chrome, Chuo-ku
NEW ZEALAND, Auckland
Kerridge Odeon Industries
St. James Building, Queen St.
PAKISTAN, Karachi-3
Film Factors, Ltd.
27 Victoria Rd., Rex Annexe
THAILAND, Surlwong, Bangkok
G. Simon Radio Co., Ltd.
30 Patpong Avenue
EUROPE, Magnasync Office:
SWITZERLAND, Geneva
William P. Lear, Jr.
P.O. Box 18, Airport Geneva 15
DENMARK, Copenhagen CHL
Kinovox Electric Corp.
Jenslousvej 2
ENGLAND, London
Delane Lea Processes, Ltd.
12 Moor St., (W-1)
Gordon Cameras. Ltd.
45 Kensington High, (W-8)
FRANCE, Paris
Brockliss-Simplex S.A.
6. Rue Guillaume Tell
GERMANY, Hilden Dusseldorf
Gerhard Johansen
3 Lessingstrasse
GREECE, Athens
Christos Axarlis
50 Stadium St.
ITALY, Rome
Reportfilm, di J. M. Schuller
Via Antonio Bertolini 31

The survey points out that greater emphasis should be placed on distributing university-produced films. Many instances were uncovered of useful films never being circulated beyond their place of origin even though they would have been potentially salable to other universities.

Although it was not the prime purpose of this study to analyze the extent to which American institutions of higher education offer courses in motion-picture production techniques, or to evaluate the relative merits of such courses now offered, the present investigation does point out that there is much needed if universities are to contribute to the orderly training of competent motion-picture production personnel. A strong case is made for better-prepared instructors, more adequate textbooks and correlated graphic materials, and many more scholarships and fellowships. Those who feel that the ultimate well-being of the motion-picture industry may well depend upon its ability to attract and to train talented future film-makers will find in this interesting and provocative book much food for thought.—*John Flory*, Advisor on Non-Theatrical Films, Eastman Kodak Co., 343 State St., Rochester 4, N.Y.

Polaroid Manual

By Ansel Adams. Published (1963) by Morgan and Morgan, Inc., 101 Park Ave., New York 17, N.Y. 192 pp., 32 pp. professional Polaroid prints, charts, diagrams, illus. 6 by 9 in. Price $5.95.

The Polaroid technique is just sufficiently different from conventional photography to make a discussion desirable of how it is to be used, what one can accomplish with it, what special effects one can secure, and what are the results of certain differences in treatment. This is especially valuable from the hand of an expert. Only the black-and-white photography is covered, with the "zonal" techniques that have been described for conventional film. The many illustrative pictures by Ansel Adams are all that one has been led to expect from that master photographer, and each is accompanied by short notes on the subject and the technique used.—*Pierre Mertz*, Consultant, 66 Leamington St., Lido Beach, L.I., N.Y.

L'Émission Photoélectrique

By P. Vernier. Published (1963) by Dunod, 92 rue Bonaparte, Paris 6, France. 4¼ by 6½ in. xii + 156 pp. illus. diagrams. Soft cloth. Price 16 francs.

There have in recent years been a number of developments in the knowledge and use of photoelectric emission. This little volume summarizes the present state of the art in both aspects. Among the scientific results treated are some of the attempts to obtain high quantum efficiency in the photoemission by the use of surface compounds. Specifically these include various antimonides. Among the applications, the author describes the photoelectronic image amplifiers and various secondary emission multipliers. The various television pickup tubes are described, although too briefly to note any particular novelties.—*Pierre Mertz*, Consultant, 66 Leamington St., Lido Beach, L.I., N.Y.

Intermodulation and Harmonic Distortion Handbook

By Howard M. Tremaine. Published (1963) by Howard W. Sams & Co., Indianapolis 6, Ind. 160 pp. illus. diagrams. Paperbound. Price $3.95.

The matter of intermodulation and harmonic distortion is of great importance to the reproduction and transmission of sound, if high or even reasonable fidelity is expected to be maintained. It is this aspect of the field that is treated here, as distinguished from the many other problems of nonlinearity.

It has taken a long time to arrive at simple and yet significant methods of expressing and measuring nonlinear parameters, to assess the impairment that they cause. The author describes the SMPTE, the CCIF, and the "notch" methods, with their advantages and drawbacks.

He then describes several commercial intermodulation analyzers, and a specially designed laboratory analyzer. A final chapter describes how these instruments are used, on amplifiers, magnetic recorders, disc recorders, photographic film recorders, and measurements of transformers. A possible comment is that more discussion could be given on an assessment of the subjective impairment caused

Inspect every foot before it leaves your plant with the HFC High Speed Heavy Duty Inspection Projectors -- 16mm & 35mm models now available.

NEW

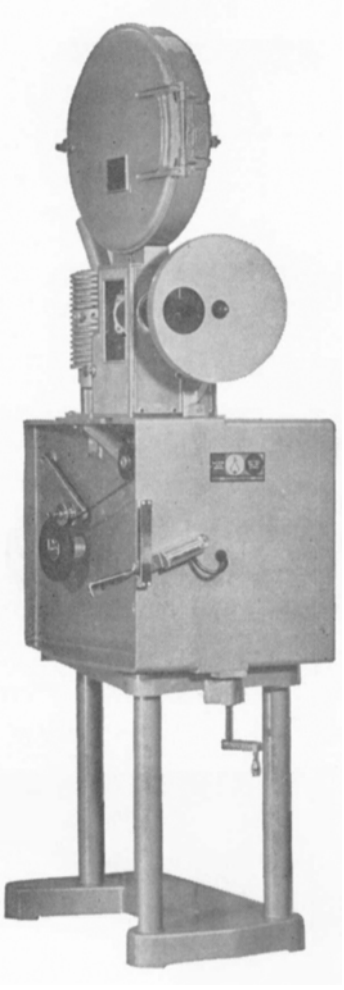
The projector is a converted front shutter Simplex with a two pin intermittent. 16mm or 35/32 film runs at a speed of 144 ft. per minute while 35mm film runs at a speed of 165 ft. per minute.

1. A variac controls the light intensity.
2. A 500 watt lamp is used for 16mm and a 1,000 watt for 35mm (a blower is used to cool the lamphouse).
3. A 2½ inch projection lens is furnished with each unit.
4. A start-stop lever controls the power to the lamp and motor.
5. The magazine and take up core takes up to 3,000 ft. of film.
6. Upper guide rollers are made to handle the film from either direction of the feed reel.
7. A free wheeling take off flange is provided in the magazine.
8. A lamp near the takeup reel permits hand inspection of the film prior to takeup.

NOUVEAU

Le projecteur contient un obturateur Simplex anterieur transformé avec deux clavettes intermittent. Les films de 16mm ou 35/32 tournent avec une vitesse de 144 pieds à la minute, tandis que les films de 35mm tournent avec une vitesse de 165 pieds á la minute.

1. Le regulateur de voltage d'intensité d'eclairage.
2. La lampe de 500 watt est nécessaire pour les films de 16mm, et de 1000 watt, pour les films de 35mm (un ventilateur est mise pour rafraichir la chambre de la lampe).
3. L'objectif de 2½ est instalé.
4. La manette de mise en marche et d'arret controle en meme temps la lampe et le moteur.
5. La boite de films avec noyau peut contenir 3000 pieds du films.
6. La roue supérieure est construite de manière de recevoir le film dans les deux directions, nourrie par la bobine centrale.
7. Une roue est instalée pour libérer rapidement le film de la boite.
8. La lampe se trouve pres de la bobine recepteuse, et donne toute facilité pour inspecter le film a main dans le projecteur.



NUOVO

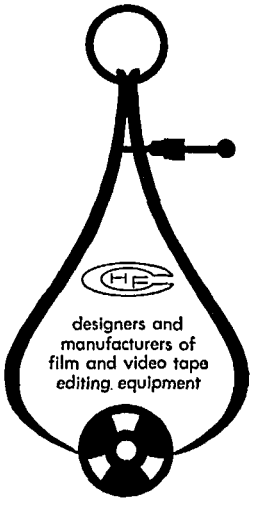
Questi proiettori sono Simplex transformati, otturatore al fronte, meccanismo di scatto di due punte. La velocitá di proiezione in 16 o 35/32mm e di 144 piedi per minuto, e in 35mm, di 165 piedi per minuto.

1. Controllo manuale della luminositá della lampada.
2. Lampada di 500 watt per 16mm e di 1000 watt per 35mm.
3. Obbiettivo di proiezione di 2½".
4. Maniglia per controllo di motore e lampada di proiezione.
5. La cassetta porta pellicola puo contenere 3000 piedi.
6. I rulli superiori di guida sono construiti per operare con film provenente di ambi lati della bobina svolgitrice.
7. Disco con montatura sporgente nel magazzino.
8. Una lampadina illumina la bobina avvolgitrice, permettendo l'ispezione manuale del film prima che si avvolga nel proiettore.

NUEVO

Esta máquina es un proyector simplex convertido, obturador al frente y movimiento intermitente a doble grifa. Para 16mm o 35/32mm, la velocidad fija de proyección es de 144 pies por minuto, para 35mm es de 165 pies por minuto.

1. Un reostato controla la intensidad de la lampara de proyección.
2. Para 16mm se usa una lampara de 500 watt, y una de 1000 watt para 35mm (un chorro de aire ventila las lámparas en ambos casos).
3. Cada unidad está provista de un lente de proyección de 2 pulgadas y media.
4. Una palanca de control opera el motor y la lampara simultáneamente.
5. Capacidad de proyección: rollos de hasta 3000'.
6. Los rodillos de guía superiores operan con la película en ambas direcciones.
7. La tapa de la bobina de carga es desenroscable.
8. Una lámpara ubicada junto a la bobina de toma permite la inspección manual de la película antes que se rebobine en la bobina superior del proyector.



HOLLYWOOD FILM COMPANY

REELS / CANS / CASES

956 N. Seward, Hollywood 38, Calif., HO 2-3284 • 122 W. Kinzie, Chicago 10, Ill., 644-1940 • 524 W. 43rd St., N.Y. 36, N.Y., LO 3-1546

by varying amounts of nonlinearity on sound reproduction fidelity, to arrive at meaningful tolerances.—*Pierre Mertz*, Consultant, 66 Leamington St., Lido Beach, L.I., N.Y.

Fundamentals of Magnetic Amplifiers

By Barron Kemp. Published (1962) by Howard W. Sams & Co., 4300 W. 62 St., Indianapolis 6, Ind., 128 pp. illus. diagrams. Paperbound. Price $2.95.

The field of magnetic amplifiers is one of great interest, considering the alternatives it offers to the fields of vacuum tubes and solid state devices. A book for the technician in this area can be of great value. The present work is fair enough when it discusses generalities. However when it gets to magnetic amplifier design, the correlation between the examples in the text and the illustrations is almost zero, and some vital information is not supplied, so that the reader is given a rather hard time.—*Pierre Mertz*, Consultant, 66 Leamington St., Lido Beach, L.I., N.Y.

Acts of Turin:

4th UNIATEC (Union Internationale des Associations Techniques Cinématographiques) Congress (Torino, September 24–27, 1961)

(Permanent UNIATEC address: Secretariat, 92 Champs Elysées, Paris 7, France.) 108 pp. paperbound, illus.

The 13th International Congress on Cinematographic Technique, and the 4th UNIATEC Congress were held at Turin in September of 1961, together with the second International Technical Contest for Film. This volume contains the proceedings of these meetings.

The subjects treated, in several languages, are: import of recent scientific discoveries on future film technique; physio-psychological foundations of cinema; physical-chemical and mechanical features of thermoplastic films; problems of sound recording; objective evaluation of image quality; and the Eastman Viscomat processor. The volume also contains announcements of the prize winners in the film contest.

The subjects are most interesting, but very broad, and dealt with all too briefly in the papers. One could wish, also, that there had been a better correlation between illustrations and text. Some figures that appear very interesting, in several papers, are not even mentioned in the text.

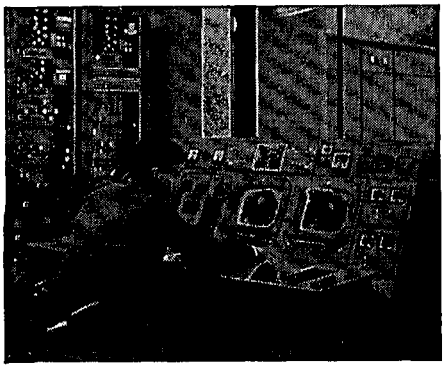
The film winning first prize was *La Lunga Calza Verde* (*The Long Green Stocking*), an animated cartoon.—*Pierre Mertz*, Consultant, 66 Leamington St., Lido Beach, L.I., N.Y.

Occasional Paper No. 6: Studies in the Growth of Instructional Technology I: Audio-Visual Instrumentation for Instruction in the Public Schools, 1930–1960: A Basis for Take-Off

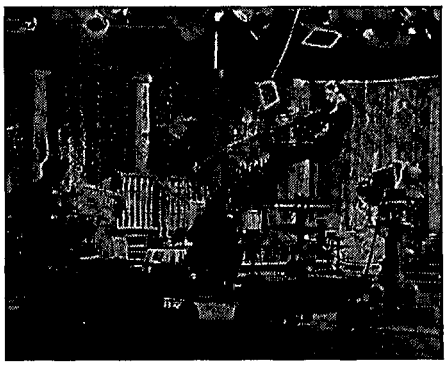
By James D. Finn, Donald G. Perrin and Lee E. Campion. A report prepared for the Technological Development Project of the National Education Association of the U.S. Project Headquarters: School of Education, Univ. of Southern Calif., Los Angeles, Calif.: 924 W. 37 St., Los Angeles 7. Washington Office: NEA, 1201 16th St., N.W., Washington 6, D.C. 108 pp. illus., graphs.

This paper contains much to make it worthwhile reading for members of the SMPTE. Consider these three items: First, there is a wealth of material in the nationwide picture of the amount of projection equipment and the number of record players, television and radio receivers, and language laboratories in our schools. This alone would make the article worth reading. Second, this paper is much more than a report of a survey. The mission of the Technological Development Project is to assess the technological revolution in education. In this paper we are given a straight-out statement of where we are along the road of technological development in education. There is no tendency to present figures, then leave all the interpretation to the reader. The authors state their beliefs in a direct fashion. Third, this entire project is under the National Education Association. This should assure that it will be widely read by educators and not only those with a vested interest, such as audio-visual directors, etc. Some reaction of educators to this paper should be forthcoming. It will be well worth noting.

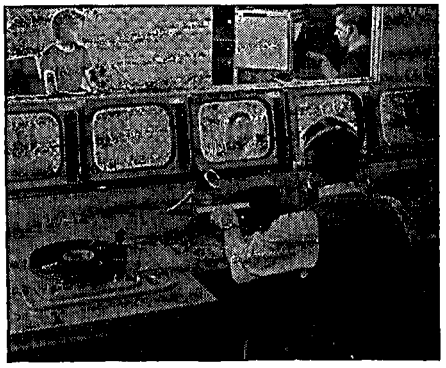
This paper is based on a proposition advanced by Dr. Finn in an earlier article. To quote from the paper, "... in this view,



The Marconi equipped B.B.C. London Transmitting Station at Crystal Palace.



A Marconi equipped studio at the B.B.C's new television centre White City.



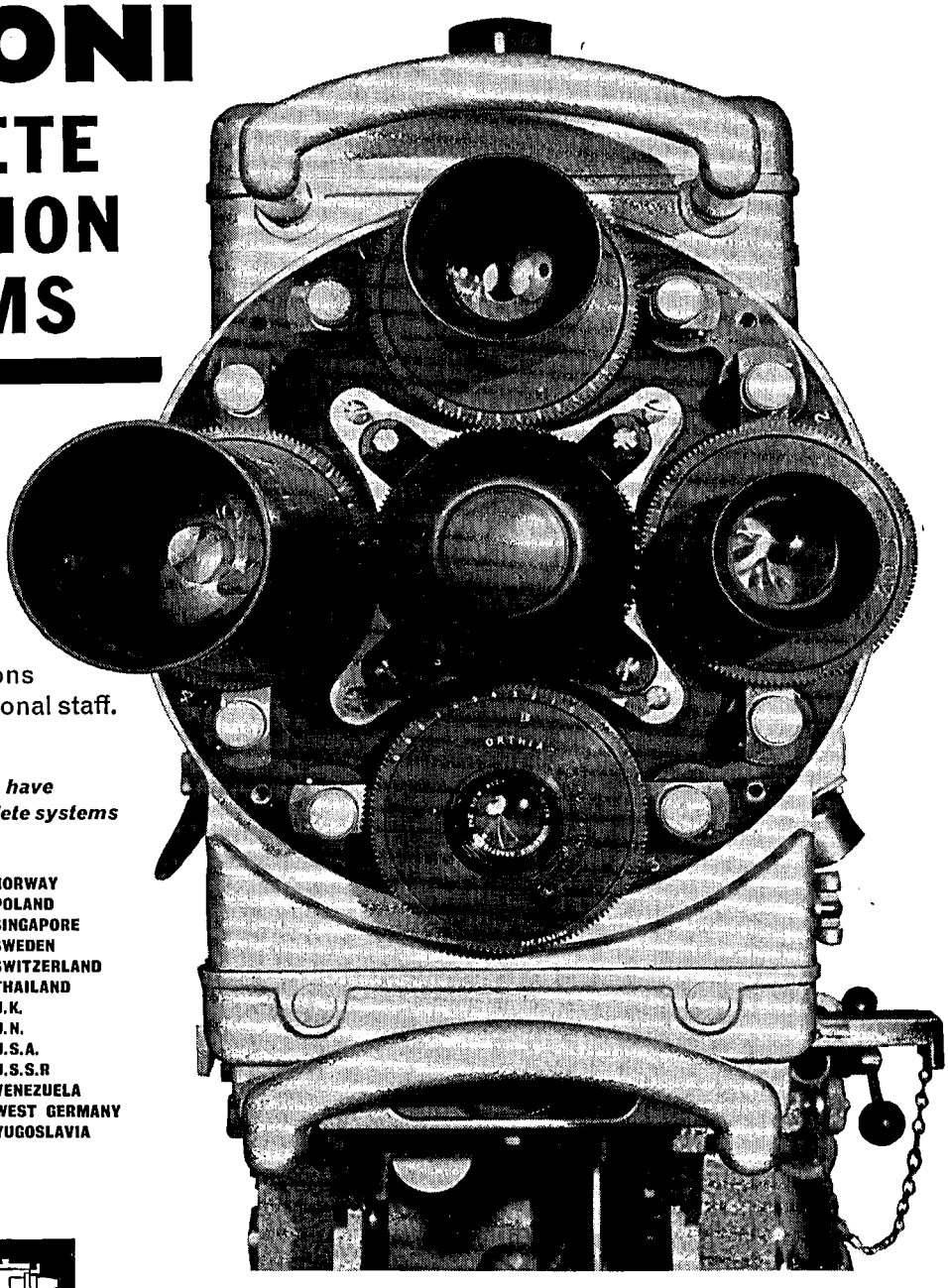
Packaged television station designed for minimum staffing.

MARCONI

COMPLETE TELEVISION SYSTEMS

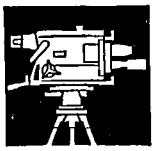
SURVEYED
PLANNED
INSTALLED

Marconi's have designed and installed systems from large television centres to small stations requiring the minimum of operational staff.



Marconi's world wide system services have provided television equipment or complete systems to 41 countries.

ARGENTINA	GHANA	NORWAY
AUSTRALIA	GIBRALTAR	POLAND
AUSTRIA	HOLLAND	SINGAPORE
BRAZIL	HONG KONG	SWEDEN
CANADA	HUNGARY	SWITZERLAND
CHINA	INDIA	THAILAND
CYPRUS	ITALY	U.K.
CZECHOSLOVAKIA	JAPAN	U.N.
DENMARK	KENYA	U.S.A.
EAST GERMANY	LEBANON	U.S.S.R
EGYPT	MALTA	VENEZUELA
EIRE	MEXICO	WEST GERMANY
FINLAND	NEW ZEALAND	YUGOSLAVIA
FRANCE	NIGERIA	



The MARCONI MARK IV camera is distributed in the U.S.A. solely by:
AMPEX Corporation, REDWOOD CITY • CALIFORNIA
Manufacturers of the VIDEOTAPE* Television Recorder
*TM Ampex Corporation

THE MARCONI COMPANY LIMITED, CHELMSFORD, ESSEX, ENGLAND

BI9A

education, as a sector of national life, has, for the most part, been cut off from the technological advances enjoyed by industry, business, the military establishment, etc. The American educational enterprise exists out of technological balance with great sectors of the society. As such, it can be viewed as a relatively primitive or underdeveloped culture existing between and among highly sophisticated technological cultures."

The writers examine this proposition against a background of statements selected from students of current economic theory which involve the characteristics of a traditional culture as opposed to a high-order technological culture.

Here again we quote from the paper. "The statements have been developed from an examination of some of the students of economic growth and development . . . The selection, synthesis, organization and reconception is, however, the responsibility of one of the writers of this paper." [In this case, Dr. Finn.]

The immediate schematic on which the assessment of education's technological status is based comes from Rostow, who has identified five stages of growth in the transition from a traditional culture into a high-order technological culture. The unique point of departure is summarized in these words from a footnote. "It should once again be emphasized that this whole argument is based on analogy and the treatment of the American educational enterprise *as if it were a society or culture* . . . no one has yet apparently realized that education itself can be subject to a secondary take-off — in Rostow's terms."

Once this argument is accepted, the authors have little trouble in developing by means of graphs and tables the contrast between education as a traditional culture and the technological culture of a very high order which has developed in other portions of our economy.

To arrive at a quantitative analysis the authors use the supply of equipment as an indicator. It is in this portion of the paper that a wealth of material is presented in both graphic and tabular forms. Some idea of the completeness of this survey can be derived from the very high percentage of responses to the confidential survey which was conducted.

If there is a weakness in the chain of reasoning which characterizes this paper it perhaps occurs at this point. While the equipment supply as here presented is undoubtedly a good indicator of the status of our capability for certain types of technological instruction, it is not the only indicator. The paper touches incidentally on several other indicators. One of those mentioned is the volume and adequacy of materials for use in programing the equipment. Reference is also made to the expectation on the part of teachers to have technological materials and equipment furnished, and again to the requirement when a language laboratory is installed that the teachers must be willing to accept a teaching methodology which was not common a few years ago. These are part of another indicator — teacher attitude and acceptance. The adequacy of materials and the degree of teacher acceptance could not be assessed as easily or as accurately as the equipment supply. To be sure, the indicator used, equipment supply, is a good one and it does have implications with respect to materials and to teacher acceptance. But the results of "pump priming," the "band-wagon" effect, and other influences all enter in and can distort the picture given by this single indicator. Some place along the line we need an assessment of other pertinent indicators on a scope comparable to that represented in this paper.

The authors round out their paper by devising a teacher/equipment ratio. This ratio is then used as the milestone to measure our progress. It would be easy to divulge their conclusions, but that would be like giving away the plot of a movie.

This paper should be read in its entirety so that the rationale and the details will be understood.—*Steve Knudsen*, Iowa State University, Ames, Iowa.

The Technique of Documentary Film Production

By W. Hugh Baddeley. Published (1963) by Hastings House Publishers, 151 E. 50 St., New York 22. 268 pp. Illus., glossary, index. 8½ by 5⅓ in. Price $10.00.

In the preface to this book, Mr. Paul Rotha comments on a current trend among certain film-makers to reject the need for technical skills and disciplines in order to enjoy greater creative freedom. Speaking

2·7

He goes for the flesh tones

The color of skin is terribly important to this gentleman. He's a color-correction specialist in the General Film lab; skin is the key tone he uses to judge color adjustments that are needed from scene to scene in trial prints.

His corrections are then programmed into our automated printers. (We use both additive and subtractive types.) These reproduce release prints in any quantity, rapidly and without variation.

In many instances, the precision and speed of our modern equipment will lower processing costs for producers. Send for our latest price list, or call for a specific quote on your next production, either color or b&w. Write to General Film Laboratories, 1546 N. Argyle, Hollywood, California 90028. Phone (213) HO 2-6171.

GENERAL
FILM LABORATORIES
A Division of Pacific Industries, Inc.

of this "nouvelle vague," Mr. Rotha says: "Personally, I much welcome and applaud this freedom — it has a fine freshness to it — but at the same time it has often shown a disrespect for the craft of film-making about which I am not happy. Somewhere between the two must lie a middle way in which freedom of technical means can be equated with the skill of fine craftsmanship. Out-of-focus shots, a wavering hand-held camera and sound recording in which the dialogue is inaudible are the privilege of the rank amateur. Film-making is a "professional task." One must accept this sensible appraisal of the need for technical and administrative knowledge of motion-picture production to appreciate this book. Mr. Baddeley states that his primary purpose has been to provide practical information for the film-maker and he has achieved this objective in an effective and interesting manner.

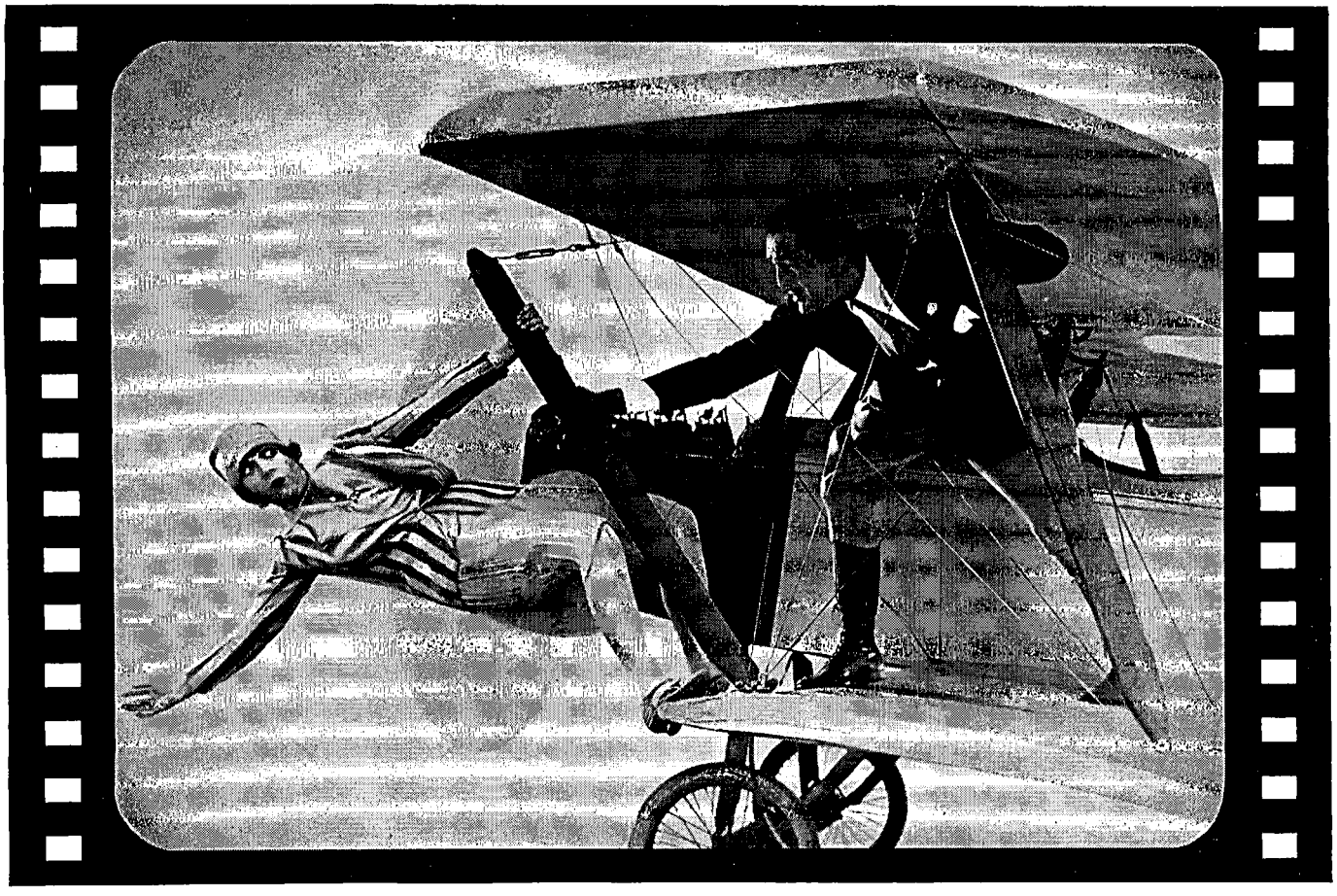
Administrative practices tend to vary perhaps more than techniques from one country to another and this book is concerned with British procedures. In the chapter dealing with preparation of the budget, additional clarification of certain details might be helpful. For example, the sponsor of a documentary film usually wishes to secure the widest possible exposure for his message. For this reason, one must anticipate the possible additional costs which may arise in terms of professional fees (residuals), recording royalties, etc., should a film be shown in theaters and on television in addition to its nontheatrical distribution. This is, of course, a more serious problem if a number of professional actors and musicians are used. Local procedures and bylaws affecting clearances for nonprofessional actors, police and fire assistance, electrical inspections, etc., should be anticipated in the preparation of a budget for production in North America. No one yet has been able to forecast every financial calamity which may occur under certain location conditions and the newcomer to the industry is well advised to provide a substantial allowance for unforeseeable contingencies if shooting must be done under conditions which will not permit accurate prior assessment.

The chapter dealing with camera equipment and filmstock contains most of the information necessary to provide an adequate introduction to the field. Particular emphasis is given to the use of lightweight equipment and certainly this has become a necessity over the past few years to meet the highly mobile location requirements of documentary film-making.

The sections dealing with lighting, artwork and animation and sound recording appear to cover most of the techniques in common use today. It should, perhaps, be pointed out that the purpose of the book is to provide the film-maker with the basic information he needs about various operations but it is not intended as a complete training guide for technical specialists.

Nontechnical readers of this book will benefit considerably from the many simple illustrations covering various processes and procedures.

The chapter dealing with shooting a documentary film overseas should be of considerable value to any film-maker. One cannot stress too strongly the absolute necessity for detailed preplanning of loca-

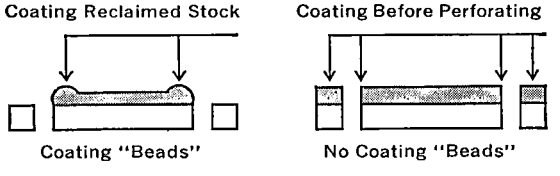


Save your magnetic sound recording from the perils of old film backing!

SCOTCH® BRAND Magnetic Film uses only fresh stock . . . assures unsurpassed coating uniformity!

If you're buying magnetic film for price, you may be getting *reclaimed* film stock for backing. Maybe the stock you get isn't quite as old as the Nickelodeon thrillers. But much of it is sure to be dried out and shrunken with age, strained and weakened by an unknown number of passes through an unknown number of less-than-perfect projectors.

"SCOTCH" BRAND MAGNETIC FILM stock is *fresh cellulose acetate* of photographic quality. It's dependably sturdy; has known conformability and life expectancy; assures a more constant film speed without flutter and wow.



Moreover, as the above diagram shows, magnetic coating "beads" at the edges. This beading cannot be cut away from reclaimed stock. It remains, to prevent the film from conforming perfectly to the head, thereby diminishing high frequency response. Fresh stock "SCOTCH" BRAND MAGNETIC FILM is coated with ultra precision by spotlessly clean equipment, and checked by the same type of professional equipment used in the field to insure consistency. Coating is applied onto wide triacetate rolls. Slitting and perforating of the film *after* coating completely eliminates beading. You are assured of consistent uniformity across the entire coated surface, excellent head to film contact and optimum frequency response. And all "SCOTCH" films feature exclusive lifetime Silicone lubrication to protect sensitive recording heads and extend film life.

No. 316 . . . a Standard Oxide film. The pick of professionals the world over for 16mm. sound excellence. Its uniformity, dynamic range, freedom from distortion, provide top quality for original recordings and subsequent re-recordings.

No. 326 . . . a High Output Oxide film, offers the same quality recording advantages as No. 316, with greater output and increased signal-to-noise ratio.

No. 315 . . . a Standard Oxide film in 35 mm, the industry's standard for highest stereophonic multiple track and single track master recording. This film is also available with High Output Oxide as No. 325.

Also available: 17.5 mm. sizes. For a free illustrated brochure on "SCOTCH" Brand Magnetic Films write: Dept. MCU-93, 3M Company, St. Paul 19, Minnesota.

tion work in another country. Perhaps nothing is more frustrating after an arduous shooting assignment involving risks to crew and equipment than finding that most of the exposed film is still sitting in a steamy customs office awaiting completion of some minor formality.

It is perhaps unfortunate that we lack an international system of motion-picture nomenclature. American readers will have some difficulty in locating a master matcher, an animation rostrum or a joiner within their local industry. It would be a useful supplement to this book, perhaps, to provide North American equivalents for the 15 or 20 less familiar expressions which are used in the British Industry.

In summary, Mr. Baddeley has done an excellent job in presenting a most complex subject in a clear and understandable manner. It is as up to date as any book on a growing technology can be and should find a place on the bookshelf of anyone who has a need for an overall appreciation of the practical aspects of documentary film production.—*Gerald G. Graham*, Director, Technical Operations, National Film Board, Box 6100, Montreal, Que., Can.

Broadcast Engineering Notebooks:

Vol. I Television Tape Fundamentals

By Harold E. Ennes. Published (1962) by Howard W. Sams & Co., 4300 W. 62 St., Indianapolis 6, Ind. 256 pp. incl. index. Illus., diagrams. Paperback ringbound. Price $5.95.

This handbook should fill a need on the part of engineers in charge of TV broadcast stations and TV technicians for a ready source of information on magnetic video-tape recording. The book is a convenient paper back handbook size and comprises seven well-diagrammed and illustrated sections. The first five sections, or chapters, are concerned with basic theory and characteristics of the system with respect to both the record and reproduce modes. The elements comprising the complete system are described in some detail with occasional reference to differences in equipment as supplied by the two manufacturers (Ampex and RCA).

The sixth section deals with operational matters including a short glossary of terms, setup procedures, editing and splicing of tape. The final section deals with the care and maintenance of video-tape equipment. It gives in some detail the specialized test procedures and methods of measurement necessary to assure high-quality performance from video tape.

It should be emphasized that this book is concerned only with video-tape equipment as currently used in U.S. television broadcasting. It does not refer to newer types of equipment such as the helical or slant-track recorders. Reference is made to proposed American Standards and Recommended Practices developed by the SMPTE Video Tape Recording Committee, some of which are included for ready reference.

This book would be of special value to those who take or who have taken the orientation courses given from time to time by the two manufacturers of this type of equipment.—*Robert M. Morris*, American Broadcasting Co., New York.

Atlas of Optical Phenomena

By Michel Cagnet, Maurice Francon, and Jean Claude Thrierre. Published (1962) by Springer-Verlag, Berlin, and Prentice-Hall, Inc., Englewood Cliffs, N.J. 90 pp. 10½ by 13½ in. Price $24.00.

A photograph made for scientific purposes can sometimes be esthetically pleasing, as are many of the illustrations in this book. More than this, however, they are of great interest because of the clear and elegant manner in which they illustrate a variety of optical phenomena which few readers will have had the opportunity to observe at first hand. Forty-five plates present illustrations of six types of optical effects: geometrical aberrations, interference, diffraction at infinity, diffraction at a finite distance, polarization, and phase contrast.

The plates are accompanied by brief explanations in German, French and English of the particular optical experiment illustrated, and also by diagrams which explain the experimental arrangement of the optical components. One is left to guess, and marvel at, the ingenious methods employed by Mr. Courmont in making the photographs.

As a teaching aid and reference book for students of physical optics, this volume should receive enthusiastic acceptance. Many of the experiments described could be attempted with profit in an optics laboratory course. If the time or equipment is not available to the student, this book will be a valuable supplement to the standard textbook presentations.

Since each of the experiments described and illustrated presented its special problems, it is difficult to single out especially noteworthy illustrations. One might mention, however, the examples showing the effects of diffraction, coherent and incoherent illumination, and optical filtering. Two examples of filtering are given, showing the elimination of grain and half-tone dot images. With a few paragraphs of description, two diagrams, and two sets of photographs, the authors manage to convey a clear and concise description of a topic which, with less able exposition, can appear to be quite difficult.

This should be an especially valuable work for those having a working acquaintance with optical equipment, but who would appreciate an introduction to the theory of the subject. On the other hand, those having a good theoretical background will recognize this collection as something of a tour de force.—*Allan L. Sorem*, Eastman Kodak Co., Rochester, N.Y.

Schlieren Methods:

Notes on Applied Science No. 31

By D. W. Holder and R. J. North. Published (1963) by National Physical Laboratory, Teddington, Middlesex, and available from Sales Section, British Information Services, 845 Third Ave., New York 22. Paperbound. 106 pp. illus., photos, diagrams, references, appendix. Price $2.00.

The authors state, as the objective of the book, "to provide data from which it should be possible, without specialized knowledge of optics, photography, or electronics, to determine whether the methods may be useful in a particular investigation, and, where they are, to design, set up and use a suitable apparatus." This should not be interpreted as an introduction to schlieren for the layman. It is a manual written for the worker with a scientific or technical background. The worker should also have experience with optics, photography, electronics, and the surface problems of schlieren itself to appreciate and benefit from the book.

The authors have dealt with the subject in a very practical manner. It would be impossible to treat each phase of schlieren extensively without resulting in volumes of literature, most of which would duplicate material previously published. The subject, therefore, has been broken down into systematic categories, each of which is dealt with fairly briefly and each of which refers to an item in the book's extensive bibliography. The result is a good working manual in which the worker can gain ideas, review working equations, and easily refer to published material for a more extensive treatment of his questions.—*Paul H. Cords, Jr.*, Naval Ordnance Laboratory, Washington 25, D.C.

Books, Booklets, Brochures

A Bibliography of Magnetic Recording covering the years 1954–1961 has been compiled and edited by R. E. Hadady and published by the Kinelogic Corporation, 29 S. Pasadena Ave., Pasadena, Calif. The 20-page bibliography lists 762 papers and articles from more than 120 technical journals. Complete names and addresses of the journals are included. The references are also cross-indexed under authors' names. The bibliography is intended to provide a comprehensive coverage of all aspects of magnetic recording including data recording, data storage and retrieval, recording design, automation, and sound and television recording. It is priced at $2.00.

Traid Line for '63 is a 28-page, illustrated brochure available from Traid Corp., P.O. Box 648, Encino, Calif., which contains descriptions of various Traid products. The brochure also contains descriptions of photoinstrumentation products manufactured by other firms and distributed by Traid Corp.

Study of the Establishment of National Centres for Cataloguing of Films and Television Programmes by Jacques Ledoux (No. 40 in the Unesco series of Reports and Papers on Mass Communication) is available in the United States from Unesco Publications Center, 801 Third Ave., New York 22. It is priced at 50 cents. The study attempts to answer such questions as "Why are national cataloguing centers needed? What should be their scope? How should they be organized, especially within the framework of existing services in a given country? How much would they cost? What benefits would they yield, both at national levels and in respect of the freer flow of films across national frontiers?" The author is Director of the