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Generation of NTSC Color Signals (p. 338) *J. F. Fisher*
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Standards on Sound Recording and Reproducing Methods of Measurement of Noise, 1953: I.R.E. Standards Committee (p. 508)
Transfer Characteristics and Mu Factor of Picture Tubes (p. 528) *K. Schlesinger*

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A New Multiplex System for Three-Dimensional Sound (p. 92) *A. J. Forman*

Book Reviews

The Handbook of TV and Film Technique

By Charles W. Curran. Published (1953) by Pellegrini and Cudahy, 41 E. 50 St., New York 22, and George J. McLeod, Ltd., Toronto, Canada. 120 pp. (incl. 21 pp. glossary and 2 pp. index). Numerous charts and illustrations. $5\frac{1}{2} \times 8\frac{1}{8}$ in. Price \$3.00.

This is a complete revision in book form of a multilithed booklet entitled, "The Handbook of Motion Picture Technique for Business Men," published in July 1952. It contains not only a general review of the actual steps in the production of a motion picture for industrial or TV use, but also considerable information on costs. It will be useful to all producers in dealing with clients and especially to the smaller production organizations. Reproductions of actual story boards alongside prints of the final scene, pages from an actual shooting script, tables of cost data and an illustration of the American Television Society Recommended Standard Contract Form all give practical information for the producer. While personal prejudices of the author are reflected in a few places (as in the glossary definition of "kinescope"), the book is very generally free of these. This is one of the best books of its kind this reviewer has seen.—*Gordon A. Chambers*, Eastman Kodak Co., Rochester 4, N.Y.

Proceedings of the National Electronics Conference, Vol. 8

Published (1952) by National Electronics Conference, 852 E. 83 St., Chicago 19. 835 pp. incl. numerous charts, diagrams and tables, + 13 pp. cumulative index. $6\frac{1}{4} \times 9\frac{1}{4}$ in. Price \$5.00.

The current volume contains the text of 97 technical papers and luncheon speeches presented at the 1952 Conference. Subjects include: antennas, the assembly and measurement of components, audio, circuits, coding and recording techniques, computers, delay lines and HF test equipment, electronic instruments, engineering management, industrial measurements, magnetic amplifiers, memory tubes, radar, radio navigation, reliability of components and equipment, semiconductors, servomechanisms, television, transistors, UHF transmitter, and waveguide.

In comparison with the previous volume, which contained many titles marked "Abstract only," all but one of the papers in the present volume are complete. This, together with an increase in the number of papers presented, has resulted in a volume approximately 100 pages larger than its predecessor. Indexing and organization of the subject matter are essentially the same as in previous volumes. Typography is clear and illustrations are very legible. There are a few typographical errors, which must be pardoned

on the basis of complete and rapid presentation of a huge mass of information while still fresh enough to be of value.

It would be presumptuous on the part of any one reviewer to pass on the technical adequacy of the papers presented. The volume represents a tremendous accumulation of information and experience in many fields of specialization. Few will read it in its entirety; but many will make use of selected articles in their particular fields of electronic technology.—*Bernard D. Plakun*, General Precision Laboratory, Inc., Pleasantville, N.Y.

Color Fundamentals

By Maitland Graves. Published (1952) by McGraw-Hill, 330 W. 42d St., New York 36. i-xii + 206 pp. $7\frac{1}{4} \times 9\frac{5}{8}$ in. Price \$10.00.

This is an elementary introduction to color by an able art teacher, but it is more than a textbook for art students. The apparent purpose of providing background and technique for artistic application of color is more than fulfilled. The beginner or general reader is treated to a fascinating though abbreviated account of the basic phases of color. The treatment starts logically with (1) the color stimulus or light which is followed by (2) light modifiers or colorants. Next comes (3) the eye and color sensation, then (4) color sensation modifiers including color blindness and contrast. The final section called (5) color organization, deals with the specification of artist's paints and the employment of harmonious color combinations.

This is an obviously psychological approach and it appears opportunely at a time when the physically-minded are coming to recognize the fuller significance of the appearance aspect of color. Even in this elementary account the author has been able to show how the deobjectification of color need present no insuperable obstacle to color measurement. Indeed, a feature of the book is a description of the Munsell System of color and its application to the problems of color harmony.

The unique contribution of Graves' work is a series of 100 harmonious color schemes of four colors all of which are shown in color. These color reproductions are quite indicative though admittedly

imperfect; however, anyone who mistrusts them will find the exact Munsell specifications printed adjacent to each of the 400 reproductions. Thus the Munsell colors themselves can be consulted either by reference to the Munsell Book of Color or by means of a convenient Color Cabinet described by the author. The principles of good color combinations are also discussed in the text. The attractiveness of the book is enhanced by numerous other illustrations both in color and black and white.

There are two rather serious omissions. Though after-images are described and demonstrated, there is no broader indication of the role of visual adaptation in color appearance; indeed, the whole subject of color constancy is neglected. This is serious because color constancy has such a profound influence on color appearance. The expression, "modes of appearance" is misused to refer to color blindness and contrast; but the modes of appearance in the usual connotation are omitted. Ways of perceiving such as surface, film, volume and illumination would seem to demand mention in this context.

Some of the minor inaccuracies are understandably unavoidable with the simplified exposition which was required to implement the author's purpose. Other such errors, however, either reflect the omissions mentioned above or must be ascribed to a common temptation, viz., to leave one's special field too far behind in one's effort to box the compass of color. Nevertheless, a valuable new book has been produced not only for the beginner, but for anyone concerned with harmonious color planning.—*S. M. Newhall*, Color Technology Div., Eastman Kodak Co., Rochester 4, N.Y.

Internationale Bibliographie der Farbenlehre und Ihrer Grenzgebiete

By Manfred Richter. Published (1952) by "Musterschmidt" Wissenschaftlicher Verlag, Göttingen. i-xiii + 244 pp. $5\frac{3}{4} \times 8$ in. Price about \$5.00.

This is an important technical bibliography of color science and allied topics which is limited to publications during

the period 1940-1949. The main listing is alphabetical by author and contains 1867 titles. Nearly all are references to journal articles; only 5% are books, monographs, tests or special reports.

There is also an alphabetical listing according to 438 subject headings (Schlagworten). Few references are classified under most of these headings but there are 12 headings under each of which more than 30 references are classified. English equivalents of these 12 are: paint technique, color photography, color blindness, general color information, color vision, color measurement, color metric, color vision testing, resistance to bleaching, spectrophotometry, pseudo-isochromatic charts and dyeing of textiles.

Since the bibliography is of world scope, an estimation of the contributions by country is of interest. The breakdown with respect to nationality or at least publication language, is as follows: 59% English, 31% German, 7% French, 2% Russian, and less than 1% for the rest.

The difficulty of securing really adequate coverage in an international bibliography of this character, even when limited to a 10-year period, may be suggested by a comparison. A 10% sampling indicated that the Richter bibliography is about 35% as large as one of the unpublished American bibliographies in the same period; and that the Richter bibliography

includes only about 20% of the same references. In other words, the American bibliography would itself be 15% larger if it included all of the Richter references. The breakdown by publication language differs in expected directions. Thus, whereas the Richter bibliography was estimated to be 59% English and 31% German, the English bibliography was 75% English and 15% German. The lack of agreement can be ascribed in part to the occurrence in this period of World War II; but language and geographical factors are always present.

Several features of the Richter bibliography which contribute to its usefulness seem worth noting. Many of the articles are accompanied by a brief abstract or characterizing statement. The Russian references are usually presented in German also. Each reference is accompanied by the corresponding Universal Decimal Classification number (German). There is a brief appendix or glossary for clarifying certain terms related to color metric.

All in all, this bibliography is a valuable and convenient source of references for workers on scientific and technical color problems. It is encouraging to note the "Nr. 1" on the title page with its implication of following volumes for future decades.—*S. M. Newhall*, Color Technology Div., Eastman Kodak Co., Rochester 4, N.Y.

Central Section Meeting

The Section's Managers met on April 16 at 4:00 P.M. at Encyclopaedia Britannica Films Inc., in Wilmette. Besides the planning of future Section Meetings, the Managers reviewed the matter of members delinquent on their 1953 dues. A list of those members will be circulated among the Managers who will endeavor to remind Central Section delinquents that the Society cannot operate without dues.

Final plans were made for the May 21 and June 11 meetings and it was decided to hold a Regional Meeting on September 11 at Dayton, Ohio. Mrs. Jane Bernier, President of Synthetic Vision Corp., will handle details for the Dayton meeting.

The Section's General Meeting of April 14 convened at 8:00 P.M. on the sound stage at Encyclopaedia Britannica Films Studio. Dr. Brodshaug welcomed the SMPTE members, numbering about 100. A film, *Inflation*, produced by Mr. Bobbitt of EBF was exhibited. John J. Walker, Director of Technical Production for EBF, discussed the problems encountered by EBF in converting a theater into a sound film studio. The group also toured and inspected the entire studio and library facilities of EBF.—*James L. Wassell*, Secretary-Treasurer, Central Section, 247 E. Ontario St., Chicago 11, Ill.