the construction and operation of the laboratory from both an engineering and chemical point of view. The meeting was followed by a tour of the new Consolidated Film Industries processing plant.—*Robert G. Hufford*, Secretary-Treasurer, c/o Eastman Kodak Co., 6706 Santa Monica Blvd., Hollywood 38.

The Chicago Section met on January 30 at Wilding Picture Productions with an attendance of 325.

The first paper, "Rear-Screen Process Demonstration," was presented by John Constable. First, a demonstration was made of rear-screen projection in a limited space. By use of mirrors, a very effective system was worked out and demonstrated. As a second part of this presentation, a demonstration was made of the effect of proper lighting in achieving realism. Some six scenes were set up to show various lighting effects. The actual scenes were "shot," the film developed and shown later on in the evening. This demonstration was very effective.

The second paper, "Cine-Que," was presented by James Dickert, who demonstrated the prompter and described the system which utilizes an iTV closed-circuit setup which picks up typed information from a standard adding machine tape. The information is typed on this tape by a standard typewriter. The associated mechanical system provides means for passing the tape at a uniform rate through the system.

The third paper, "Producer-Laboratory Relations in Print Quality Control," by Harold Kinzle, consisted mainly of demonstrations of various portions of prints in color and black-and-white to show variations in print quality.

The highlight of the evening was a round table discussion paneled by experts from the staff of Wilding Picture Productions. Those who took part in this program and their areas of responsibility were: James Constable, Production Development Dept.; James Dickert, Supervisor, Sound Dept.; Harold Kinzle, Laboratory Superintendent; Duncan Taylor, Manager, Slide Film Div.; and Walter Tinkham, Production Manager. Many points in the field of motion-picture production were brought up for comment and clarification by the panel of experts.

The fourth paper on the program was "Wide-Screen Color Slide Films" by Duncan Taylor. A wide-screen slide film using split-screen effects and a special custom slide projector were demonstrated.

The last part of the program was a screen demonstration of a recently sponsored film. This anamorphic wide-screen projection was presented and discussed by James Constable. The film showed the outstanding opportunities presented by this media for selling new products.—*H. H. Brauer*, Secretary-Treasurer, c/o Bell & Howell Co., 7100 McCormick Rd., Chicago 45.

Membership Certificates (Active and Associate members only). Attractive hand-engrossed certificates, suitable for framing for display in offices or homes, may be obtained by writing to Society headquarters, at 55 West 42d St., New York 36, Price: $2.50.

books reviewed

Elements of Color in Professional Motion Pictures

Prepared by a Special Committee of the SMPTE; *Chairman*, W. R. Holm. Published (1957) by the Society of Motion Picture and Television Engineers. 55 West 42 St., New York 36. 104 pp., 27 in color; 5¾ in. × 8½ in.; hard-bound. Price $3.50 for single copies (less 20% to SMPTE Members, libraries and booksellers; for 5 through 49 copies, less 25%, plus foreign postage; for 50 copies or more, less 33⅓%, plus foreign postage). Air mail or other special shipping charges to be paid by purchaser. Within New York City add 3% sales tax. Available only for cash with order or by Company Purchase Order.

This book has already been sent to those SMPTE Members who have paid 1957 dues. The prices above pertain to sales to members who wish additional copies.

Elements of Color is a broad and basic treatment prepared by a special subcommittee of the Society's Color Committee. The Foreword by Color Committee Chairman J. P. Weiss and the Introduction by W. R. Holm, Chairman of the special committee, explain generally how a major project such as this is accomplished within the Society's organization — but do not indicate the extent of the work and care given to the editing of the text by Chairman Holm.

The book reflects not only the direct contributions of the 21 committee members listed in the book but also the indirect contributions made through them by their many associates and the 18 companies and producers the committeemen represent.—*V.A.*

Principles of Color Television

By the Hazeltine Laboratories Staff; Editors, Knox McIlwain and Charles E. Dean. Published (1956) by John Wiley & Sons, Inc., 440 Fourth Ave., New York 16. Illus. graphs. 9½ × 6 in. Price $13.00.

Color is a timely subject in both motion pictures and television. With its gradual emergence in broadcasting an exposition of its fundamentals in application to television is appropriate.

The Hazeltine Laboratories, from whose staff the authorship and editorship of this

book are drawn, were prominent in the work of the National Television System Committee, which recommended the present color broadcast standards to the Federal Communications Commission. The volume is addressed particularly to engineers and others who seek a basic understanding of the sources of these standards and how they fit in the current color television art.

The book bases its treatment of the subject on a careful and detailed review of fundamental background material. Five chapters cover various aspects of light, vision and colorimetry; and others cover graphical color reproduction and communications principles. This is applied, step by step, to the evolution of the "compatible" color television signal which was recommended to the FCC.

The treatment then correlates this with the instrumentation that can be set up to produce and use the signal. It covers cameras and other pickup systems and color television receivers. A key element in the latter is the color picture tube. Several forms of this, with necessary auxiliary electrical circuits, receive attention.

A welcome chapter is that on test and measuring methods. These techniques are essential to maintain any working installation of color television. Further chapters give detailed standards, formulas and a glossary of terms.

In contrast with these subjects, possibly transmission (over broadcast propagation, intramural and common carrier paths) is treated a bit sketchily. The assumption is made that comparatively few problems in transmission are added by the insertion of color, and these are given only incidental paragraphs.

The book will be a useful reference in the library of the television engineer. Others who deal with visual and electronic arts will also find in it material of value.—*Pierre Mertz*, Bell Telephone Laboratories, 463 West St., New York 14.

Analysis of Electric Circuits

By William H. Middendorf. Published (1956) by John Wiley & Sons, Inc., 440 Fourth Ave., New York 16. i–xiv + 298 pp. + 8 pp. index. 318 illus. 6 × 9¼ in. Price $6.00.

Generally, books on circuit analysis fall into one of two categories: They either apply a revolutionary, new approach to what is by now often — and fallaciously — regarded as a subject far removed from the frontiers of science; or they are a rehash of other works on the subject.

Although the present work quite definitely does not fall into the former category, the author's approach is fresh enough to save the text from being classified in the latter.

In barely three hundred pages Professor Middendorf manages to present steady state analysis both clearly and exhaustively, a feat which points toward the major virtue of the book: organization. The work begins with succinct statements of Coulomb's Law, Faraday's Law, Ohm's Law, Kirchhoff's First and Second Laws, and the instantaneous power equation. This section is followed by definitions of terms (and ASA standards are used throughout!) and a brief chapter on complex algebra. That much background having been provided, conventional steady state circuit analysis is presented in rather conventional form, with the conventional chapter on locus diagrams (often called "graphical analysis") followed by a conventional chapter on resonance, and rounded off with a perhaps less conventional chapter on Magnetic Coupling.

Part II of the text, called "Extension of Basic Circuit Analysis" contains a chapter on Nonsinusoidal Waves and one on Network Theorems. In the latter chapter, the author discusses mesh star transformations, equivalent sources, superposition, reciprocity, Thevenin's and Norton's theorems, maximum power transfer theorem and four terminal network notation. The chapter should be required reading for all those who have up till now quietly (who would dare voice such a question?) wondered, of what earthly use the reciprocity theorem is.

Finally, the third part of the book consists of a chapter on polyphase circuits (for power engineers) and a chapter on high Q circuits (for communications engineers). It is not quite clear why the book does not, instead, contain a section on transient analysis (for *all* electrical engineers). In fact, it is so difficult to conceive of an electrical engineer who has no need for transient analysis, that the omission of this subject from the text necessarily limits the book's usefulness as a course text or as a reference.—*G. F. Paskusz*, Dept. of Engineering, University of California, Los Angeles.