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Exhibit of
the Society
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**Century Plaza Hotel
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results from the work have been encouraging. A lengthy and interesting question period followed.

Mr. Ballantyne presented a paper on SECAM 60. The paper was illustrated with slides showing comparisons of the three color television standards, PAL, NTSC and SECAM. A display with a monitor of the SECAM system was presented

showing the relative simplicity of this system for certain types of closed-circuit color TV.

A coffee break was provided through the courtesy of Canadian Broadcasting Corp. and the National Film Board. — A. Dunstan Russell, *Secretary-Treasurer*, Alex L. Clark Co., Ltd., 1070 Bleury St., Montreal, P.Q., Can.

**books
reviewed**



Low Budget Features

By William O. Brown. Published (1972) by William O. Brown, 1054 North Cahuenga, Dept. J., Hollywood, CA 90038. 240 pp. Illus. 5½ by 8½ in. Price \$20.00.

A quote from the Foreword of *Low Budget Features* adequately sets the stage: "Most distressed films (those that never reach the answer print stage) wind up on the rocks because they run out of money . . . Here the low-budget producer regretfully leaves the common ground shared with the mogul . . . (when) the mogul exceeds his budget, he simply dips into reserves to finance the film. If you have that kind of reserves, you probably don't really need this book!"

This comment eliminates about one-half of one per cent of film producers and leaves the book with a pretty large audience. Young filmmakers, both in and out of film study courses in universities, and inexperienced independent producers should welcome such a concisely written, business-oriented, presentation as *Low Budget Features*. It should be required reading and kept as a reference for any cost estimate in filmmaking.

The ten chapters, beginning with "Organization and Financing" and ending with a "Source Directory" cover the complexity of a motion-picture budget from a ballpark figure through the unknowns required for a final budget. Whether you have had the experience, no matter how many times, of setting up a budget, this compilation of sound budgeting methods covers every conceivable cost. It will help to prevent leaving out an important cost item.

A helpful feature is the 54 detailed breakdown forms from a "Comparison of Production Methods" (35mm, 35mm Techniscope and 16mm blowup) to "Employers Contributions."

In our film classes at the Rochester Institute of Technology those serious-minded filmmakers are astounded at the details necessary to accurately budget a film whether it be a 30-second television com-

mercial or a 50-minute documentary, or a 90-minute B feature. This book is a revelation to them and should be a part of every young filmmaker's required library. Regardless of the type of crew (IATSE/NABET/nonunion) the entire plan to organize production cost is outlined in an orderly manner. Whether you are "new" or "old" in the film business this up-to-date book is a valuable aid to arriving at a profitable venture in motion-picture production.—*Prof. Reid H. Ray*, Coordinator, Film Making/TV Dept. Rochester Inst. Technology, One Lomb Dr., Rochester, NY 14623.

**Units of Measurement:
An Encyclopaedic Dictionary**

By Stephen Dresner. Published (1972) by Hasting House, Publishers, 10 E. 40 St., New York, NY 10016. 288 + xvi pp. 6 by 9 in. Price \$15.00.

The purpose of this book, as stated by the author in the Preface, is to provide formal definitions and explanations, enabling a user who may be unfamiliar with a particular unit to connect it with one he understands. Since it is certain that within a reasonable time all measurements will be made in metric units and, in particular, in the units of the International System (SI) the size of each unit is given in terms of that of the SI unit.

The book takes into account the historical development of units of measurement and obsolete and "old fashioned" units of measurement are included and so designated.

There are 13 appendixes containing a great deal of information. For example, Appendix 13 gives a list of scientists who have given their names to units. Biographical data are included.

The book is obviously of considerable importance to scientists and technicians but it contains much of interest for the average reader. It is full of fascinating nuggets of information, for a minor example, that: 1 donkey power = ½ horsepower.

Appendix 6 contains the Beaufort scale of wind speeds (Table 53) and the Mercalli scale of earthquake intensities (Table 54). The Beaufort scale ranges from 0 (calm — smoke rises vertically) through 12 (hurricane — most violent). The Mercalli scale ranges from I (instrumental — detected only by seismographs) through XII (catastrophic — total destruction; objects thrown into the air; ground rises and falls in waves.)

Appendix 4 lists obsolete and old fashioned units. For example, the Winchester wine gallon (WWG) was used to measure honey, oil, spirits, vinegar and wine. A "matt" represented 80 lb of cloves. A

noggin was $\frac{1}{2}$ pt of liquid (e.g., a noggin of grog).

It is, of course, impossible to give an idea of the importance of this book by plucking out a number of these marvelous, but unrelated, bits of information, tempting as it is to do so. The important thing about the book is that it contains essential reference material, extremely well arranged. The units of measurement are arranged alphabetically. There are 61 Tables included in the 13 Appendixes and there are also a useful Index and Table of Contents. Excellent as the book is, there are one or two details that could be noted. For example, in Appendix 2 (p. 209) in section 1, "The Meaning of Dimensions," the author says, "When the quantities length (l) and time (t) are considered, it is clear that they are totally independent concepts, having nothing in common with one another." This statement is philosophically doubtful. Mention could have been made in this context of Einstein's concept of Raum-Zeit-Kontinuum — the continuity of space and time, time being the fourth dimension. This is also known as the Minkowski Space — a space of four dimensions of which three specify the position of a point in space and the fourth represents the time at which an event occurs at that point.

Certainly the book should be on the reference shelves of all scientific and technical libraries but it will also be useful to the average reader, even, or perhaps especially, to one who has little knowledge of the intricate history of measurements and how the greatest possible exactitude has always been strived for.—*Edit.*

The Optical Industry & Systems Directory

Published (1972) by the Optical Publishing Company, Inc., Lenox Road, Pittsfield, MA 01201. 435 pp. $8\frac{1}{2}$ by 11 in. Paperbound. Price \$28.50.

The 18th Edition of the Optical Industry Directory continues to be the only single publication which covers the field of optical instrumentation, system design and fabrication. The directory lists hundreds of American as well as foreign manufacturers and suppliers. Its 14 sections are designed for optimum use and speed of reference by categorizing the data into basic groups.

The Components and Subassemblies Section lists all items that are integral parts of instruments and subsystem, including stock lenses. A section on equipment includes all types of manufacturing and finishing machinery and optical benches. Two sections on systems deal in assemblies of component parts designed to function either independently or as parts of systems. Other sections deal in materials, services, manufacturers, both domestic and foreign. Of particular interest to designers and students are sections containing optical and electrooptical terminology, reference data and a bibliography of product literature.

We can highly recommend the directory as a must in every reference library for anyone concerned in any phase of the optical discipline.—*A. E. A.*

IES Lighting Handbook

Published (1972) by the Illuminating Engineering Society, 345 E. 47 St., New York, NY 10017, 750 pp. $8\frac{3}{4}$ by $11\frac{1}{4}$ in. Hard cover. Price \$37.50.

The Fifth Edition of the *IES Lighting Handbook* is the only existing publication which covers the field of lighting from theory to application, providing essential information on light and lighting in a simple condensed style. The *Handbook's* 26 sections and full-color illustrations have been carefully reviewed for content and accuracy not only by the IES Technical Committees but also, where subjects were outside the scope of that Society, by other organizations and individuals.

One of two new sections is a dictionary with over 560 lighting terms, including those related to sources and concepts. The second is on underwater lighting principles. The remaining sections were updated and include: a new IES method for prescribing illumination; new data and testing procedures for high-intensity discharge light sources, more on color and color rendering index; the latest industry tabulation of lamp data; additional point illumination and luminance calculation procedures, more on the overall designing of the luminous environment; the latest information on application ranging from offices, schools, hospitals, libraries, industrial processes to aviation, roadway, sports and public conveyance; and, of course, the IES's latest recommended levels of illumination presented in both footcandles and dekalux.

Of particular interest to motion-picture and television engineers is Section 24 on Theatre, Television and Photographic Lighting. It should be noted that the SMPTE Engineering Committee on Film Projection Practice assisted in editing and updating the section on motion-picture projection lighting.

The handbook is highly recommended and is a must in a reference library, whether it be that of a designer, engineer or physics student contemplating a career in any of the many areas of lighting application.—*A. E. A.*

Animation in Twelve Hard Lessons

By Robert P. Heath. Published (1972) by Robert P. Heath Productions, Inc., 1627 Scott Ave., West Islip, L.I., NY 11795. 142 pp. + Table of Contents. Illus. 11 by 14 in. Ringbound. Price \$14.95.

This book is planned especially for the beginner in the animation field although it would be helpful to a more experienced animation draftsman and would interest anyone in the field. The 12 lessons are on: Elementry Inbetweening; Basic Inbetweening; Advanced Inbetweening; Basic Assistant Animation; Advanced Assistant Animation; General Animation; Animation Pans; The Animation Camera; Tricks of the Trade; Animation Actions; Working With Animation; and Technical Animation. Answers to the 12 lessons begin on page 100. The author warns in the Foreword, "Do not look at the answer pages until you have worked at the problems.

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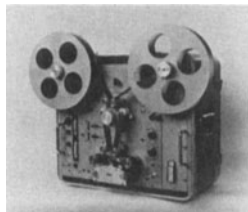
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You will just be defeating the purpose of the entire course."

More than 185 drawings and charts illustrate the lessons and their answers. The book also includes a comprehensive glossary of terms. The author explains that the student should have a proper drawing animation disc or lightbox with movable registration pegs and he gives detailed directions as to how the student can build his own if he prefers to do so rather than purchase the equipment.

The author has been an animator since 1954 and has won a number of awards for his work. The cartoon, *The Critic*, which he designed, animated and photographed, won an Academy Award in 1964. He said that soon after he became an animator he decided it was a field that needed new, young talent. "In creating this course," he said, "I felt that this would be a good introduction to persons interested in entering the field of motion-picture animation." —*Edit.*

A Discovery of Cinema

By Thorwald Dickenson. Published (1971) by Oxford University Press, 200 Madison Ave., New York, NY 10016. 164 pp. incl. Bibliography, Index and Appendixes. Illus. 7 by 8 in. Price \$8.50.

More a memoir than a formal history of film, this survey relates the political and social movements of the last 75 years to the dominant styles in the art of motion pictures. The author discusses the technological changes and developments which have advanced the "movies" from a toy to an art form. "The silent cinema had mastered space, but it took the sound film another thirty years to conquer time, and only by the combination of these two could human character be established in depth on the screen," the author tells us in one of many illuminating observations.

He divides the history of film into three phases—The Silent Film, The Early Sound Film and The Modern Sound Film. Phase Three includes the present and he believes that what differentiates this phase from the two earlier phases in motion-picture history is "confident youth, increasingly classless and politically-conscious who ask the questions *how* and *why* to which they reject mass-produced answers." He believes that the creative climate is such that we have seen "freer films made by artists using the modern versatile tools, films in which expanding techniques have been used to transmute more of the intricacies of day-to-day life on to the cinema screens than have been achieved before."

The author, now Professor of Film at the University of London, has been in the film industry since 1925 as film-editor, script-writer, director and producer (among his films are the famous *Gaslight* and *Queen of Spades*). He shares his intimate association with films with the reader in knowledgeable little glimpses of famous producers and actors. For example, in a footnote he informs the reader that "Eisenstein's experiments in montage derived from necessity. Shortage of negative made every scrap of 'short end' worth its weight in gold. Two shots would take the place of

one, but often a new concept flowered from the juxtaposition of shot against shot."

The illustrations include more than 80 stills from notable films and about 60 portraits of actors, directors and producers. —*Edit.*

The Stereoscope: Its History, Theory and Construction

By Sir David Brewster. Facsimile of the first (1856) edition published (1971) by Morgan and Morgan, Inc., 400 Warburton Ave., Hastings-on-Hudson, NY 10706. Introduction by Rudolf Kingslake. 236 + iv pp. + 12-page Catalogue of Binocular Pictures. Illus. Diagrams. 5 by 7½ in. Price \$8.95.

Sir David Brewster was born on December 11, 1781, and spent most of his life in his native Scotland. Before his death in 1868 he had invented the kaleidoscope, had served as Editor of *Edinburgh Magazine* and Editor of the *Edinburgh Encyclopaedia* and had published *Treatise on Optics* (1831), a definitive life of Newton (1855) and *The Stereoscope* (1856) as well as some 400 scientific papers. Sir David had also been principal of the united colleges of St. Salvator and St. Leonard at St. Andrews, Scotland, and principal of Edinburgh University, a post to which he had been appointed at the age of 78.

The Stereoscope is considered a classic in the literature of optics and photography and the publishers have been well advised to publish it in facsimile. The reader who appreciates the leisurely elegance of the Victorian style will find much to delight him. A small example taken from Chapter X (Application of the Stereoscope to Painting)—"The heroes of the Crimean war, whether friends or foes, will be desecrated in the trenches in which they fought, amid the ranks which they led to victory or among the wrecks of the fatal encounter in which they fell. The sun will thus become the historiographer of the future..."

At the end of the book there is a Catalogue of Binocular Pictures of the London Stereoscopic Company. Prices ranged from 7s 6d for views of Italy and of the Rhine to 1s 6d for such "popular" subjects as "Maid Taking Joint From Butcher Boy"; "Wooden-Legged Man at Kenilworth Castle"; "Gentleman Climbing Tree"; "Gardener Gossiping With Maid"; and dozens of others which, if they were available eoday, would give a glimpse of the day-to-day concerns and amusements of the average Victorian.

Of course, the book should not be regarded simply as a curiosity. As Rudolf Kingslake points out in the Introduction, it was written when photography was in its infancy, yet "Brewster shows us that he had a complete understanding and mastery of his subject."

The book has considerable historical importance and, aside from its value as an original source, it can serve as a reminder to both professional and amateur photographers of a man of science whose intellectual efforts in the fields of photography and optics advanced the sum total of human knowledge and made possible certain accepted techniques of modern photography. —*Edit.*