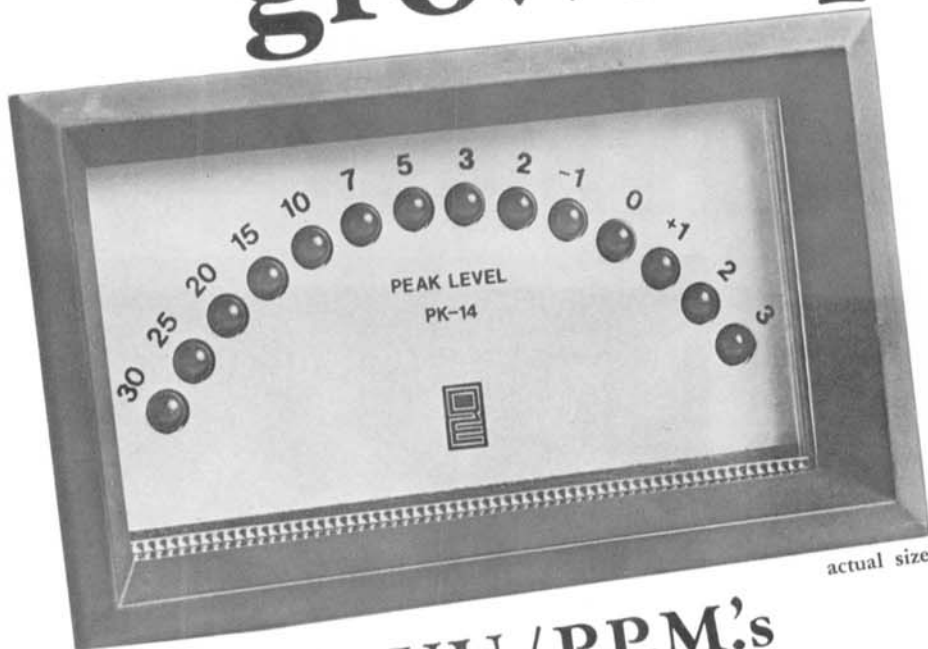


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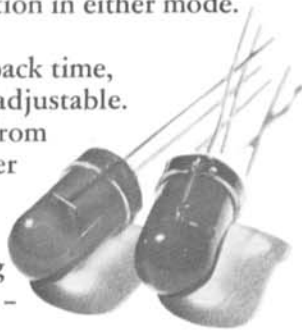
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## books reviewed



### ..... Microphones: Design and Application

By Lou Burroughs. Published (1974) by Sagamore Publishing Co., Plainview, NY 11803. 260 pp. Illus. Diagrams. 6 by 9 in. Price \$20.

The book was written to make "hit and miss technique a thing of the past," according to the author who emphasized that his intent was not to discuss theory but rather to set up guidelines to enable microphone users to deal with daily problems. The approach is down-to-earth and the book is so well written that it can be clearly understood by a nontechnical person; for the professional it will probably be one of the most-used books in his reference library.

There are 26 chapters in the book, each one containing advice, directions, suggestions and warnings and couched in the clearest and most unambiguous language possible - for example, in Chapter 22 (Windscreens), "A frequent washing in mild soap will make certain your wind-screen is functioning properly . . . don't forget the rear entry ports on cardioid microphones must also be protected by filters if one is used on the front of the microphone."

Some especially interesting information is contained in Chapter 9 - Microphones Electrically Out of Phase. The author notes that in many instances the out-of-phase condition is an obvious disadvantage but that frequently the out-of-phase microphone can be used to improve voice pickup in a noisy location. The first production model of a differential noise-cancelling microphone (Model T-45 developed by Electro-Voice) was a single-button carbon unit. The author explains how this early model works and then shows how to assemble a noise-cancelling device using two matched omnidirectional microphones. The two microphones are used side-by-side with the diaphragms parallel and in the same plane for maximum cancellation. The two units are then connected out of phase using a cable assembly. Each step of the noise-cancelling assembly is shown in diagrams. "With a pair of matched microphones and an out-of-phase cable you are ready for any voice pickup in a high noise area," according to the author who also explains to the reader that "two out-of-phase microphones may also be employed as an equalizer to minimize ambient sound." He notes that the microphones may be used at the same time provided "that a ratio of three-to-one or more is maintained, that is, the distance between the microphones must be



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three times as great as the distance between the individual microphone and the source of sound it is to pick up." The author's instructions are all supported by diagrams showing exactly how and why certain techniques work.

The book deals with such basic essentials as how to take care of various types of microphones and how to protect them from the damaging effects of dust, how to prevent stretched ribbons (in ribbon-type microphones) and how to restore microphones which have been exposed to extremely high or low temperatures and excessive humidity.

This is an exceptionally useful book for anyone who has occasion to use a microphone in either a professional or amateur capacity. The chapter headings (listed below) give a clear idea of the down-to-earth contents of the book.

- (1) Microphone Techniques
- (2) The Polar Response of a Microphone
- (3) Microphone Types
- (4) Microphone Loading
- (5) Rating Microphone Sensitivity
- (6) Microphone Overload
- (7) Proximity Effect
- (8) Temperature and Humidity Extremes
- (9) Microphones Electrically Out of Phase
- (10) Microphone Interference
- (11) Acoustic Phase Cancellation and the Single Phase Microphone
- (12) Microphone Maintenance
- (13) Comparing Microphones With Dissimilar Polar Patterns
- (14) The Monitor Speaker
- (15) Wide Range vs Controlled Range Frequency Choosing
- (16) Choosing Between an Omnidirectional and a Cardioid Microphone
- (17) The Omnidirectional Microphone for Orchestral Pickups
- (18) Assembling a Superior Bidirectional Microphone
- (19) The Two-to-One Ratio
- (20) Miking for the Drama
- (21) Making the Theater for Audience Reaction
- (22) Wind Screens
- (23) Microphones on Booms
- (24) Acoustic Separators and the Omnidirectional Microphone
- (25) The Handheld Microphone
- (26) The Lavalier Microphone — *Edit.*

## The Optical Industry & Systems Directory

Published (1974) by the Optical Publishing Company, Inc., Lenox Road, Pittsfield, MA 01201. 868 pp. 8½ by 11 in. Paperbound. Price \$32 US — \$35 Canada and all other countries.

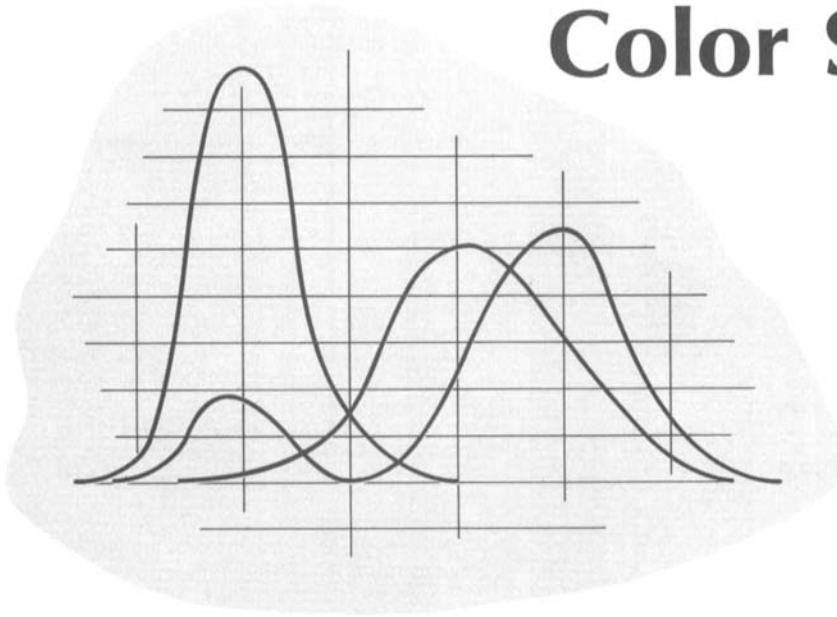
The 20th Edition of the *Optical Industry Directory* is the only existing publication which covers the field of optical instrumentation and systems design and fabrication.

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## CONTENTS

- 1 Introduction
  - 2 Fundamentals of Sensitometry
  - 3 Sensitometric Exposures
  - 4 The Processing of Sensitometric Tests
  - 5 Quantitative Evaluation of Image Density
  - 6 Densitometer Design Principles
  - 7 Interpretation of Sensitometric Results
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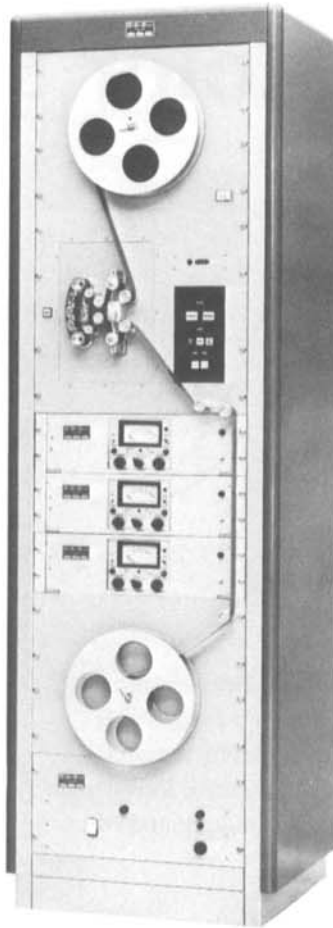
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The Directory can be highly recommended and should be a must in a reference library, whether that of a designer, engineer, physics student contemplating a career in optics or the organization officer who needs to have an accurate quantitative measure of his market. — A.E.A.

## Van Nostrand Reinhold Manual of Filmmaking

By Barry Callaghan. Published (1973) by Van Nostrand Reinhold Co., 450 W. 33 St., New York, NY 10001. 164 pp. Illus. Diagrams. 6 by 9½ in. Price \$8.95.

The book, intended to provide a comprehensive introduction to filmmaking, explains simply and explicitly the many procedures to be followed from the first plans to the final print. Aimed at students, beginners, and nonprofessional filmmakers, the book can be of immense value to the novice and can be read with interest by the professional filmmaker.

The author offers advice on the kind of equipment, camera, tripod, lenses, etc., best suited to certain filmic situations, and also offers suggestions on how to use the equipment to get the best results.

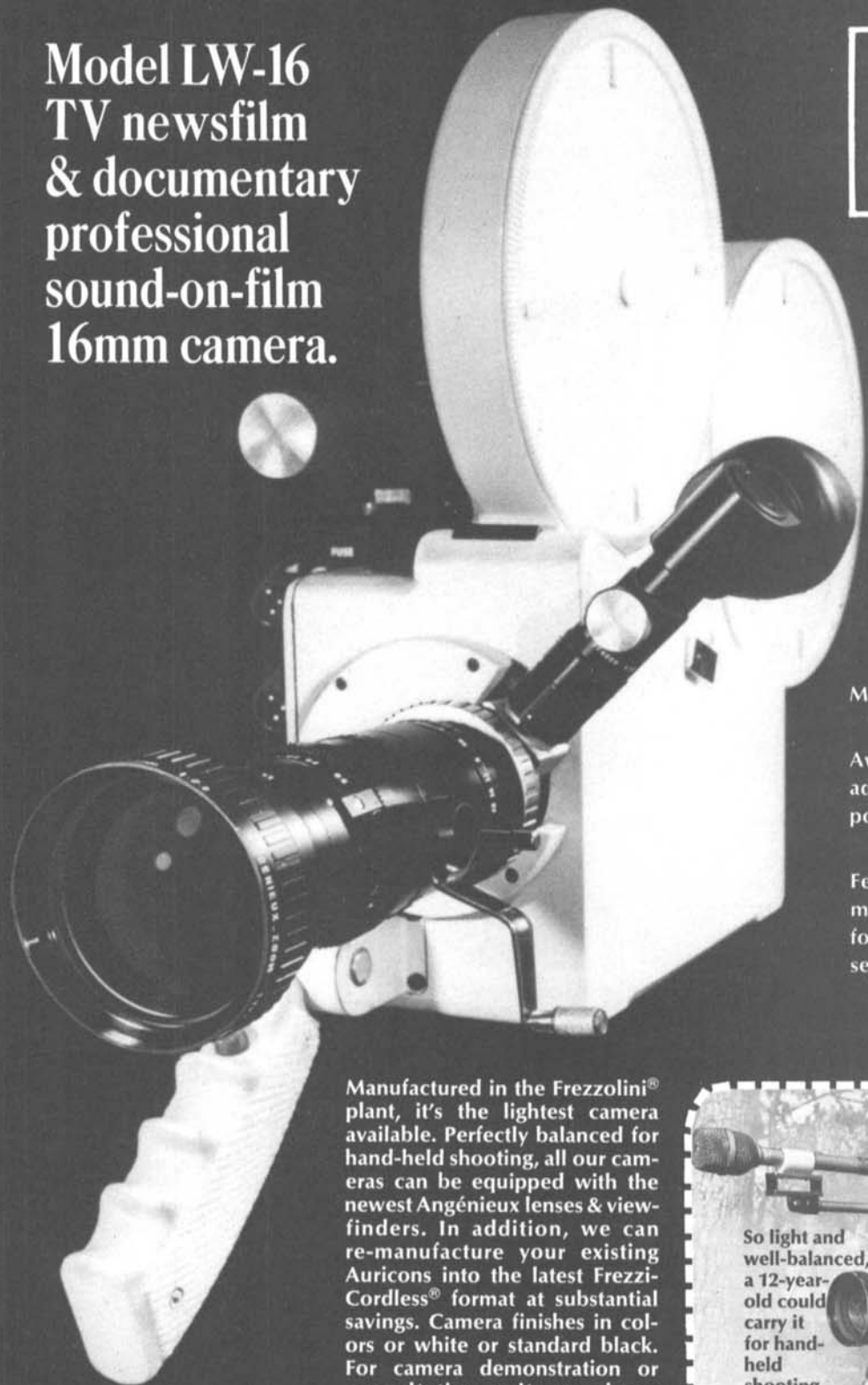
Considerable attention is given to laboratory techniques and to picture and sound editing. The book even makes suggestions for marketing once the film is complete and ready for projection. Explicit discussions of various phases of filmmaking are contained in 14 chapters — Organization and Setting Up; The Script; The Camera; Filmstocks; Lighting; Exposure; Camera Operation; Camerawork; Continuity; Sound Recording; The Laboratories; Picture Editing; Sound Editing; and Presentation. The book also contains a glossary, an index and suggestions for further reading.

An item in the chapter on Lighting explaining the famous static scene in *Last Year in Marienbad* (in a brightly lit formal garden the shadows of the people are seen on the ground, but the statues, the trees and shrubbery — stylized conical (or rather pyramidal) decorative, possible artificial objects — cast no shadows at all)

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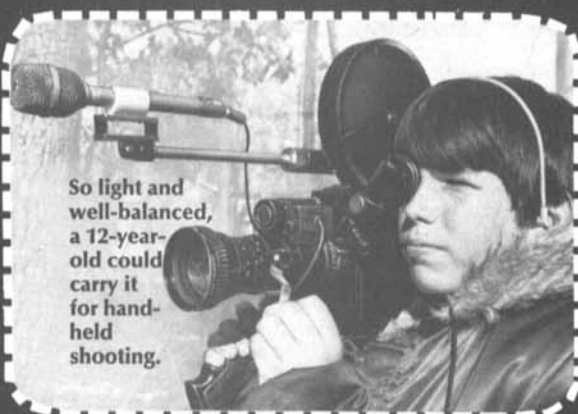


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was of special interest to this reviewer. Although we have seen this film four or five times it is the first time that we learned that this strange, eerie effect was achieved by painting the shadows on the ground. (The scene is illustrated and the explanation given on p. 54.) — *Edit.*

### Understanding Technology

By Charles Susskind. Published (1973) by Johns Hopkins University Press, Baltimore, MD 21218. 164 + x pp. Illus. (chapter headings). 6 by 9 in. Price \$6.95.

Unless the reader is just beginning to try to understand technology, he will find here brought together all the essences of the

studies and concerns he has read and thought about in recent years. From the Industrial Revolution to today's alienation from technology in some quarters in 134 pp. of taut writing in concise sentences there are reviewed all the techniques. All the technics (Mumford's preference) or technique (used by Ellul), these or this includes not merely the machines and systems of industrial production but even more encompasses the systems of economic and social administrations.

For the newer reader there are 24 pp. of Notes that are annotated references which are also a pleasure for anyone to read. For a middle-level reader these Notes were fascinating and were read straight through before reading much of the text. The

breadth and intensity of the treatment and the aptness for areas of SMPTE interest are indicated by a sampling of name references: Blackett, Popov, Wiener, Babage, Fink and Gabor; Bell, Edison, Morse and Forest; Lorenz and Snow; Burnham, Keynes and Galbraith; Orwell, de Chardin and Huxley; Skinner and Kafka; Parkman and Packard; Bettelheim and Etzioni.

The author presents an Engineer's Hippocratic Oath at the end of his chapter on Technology as a Social Force and Ethical Problem. Here and elsewhere the reader may be reminded of such activities as the Institute of Electrical and Electronics Engineers Technology Forecasting and Assessment Project and particularly of the IEEE's Committee on Social Implications of Technology and its Newsletter. — *Edit.*

### Television Production: An Introduction

By Donald L. MacRae, Michael R. Monty and Douglas G. Worling. Published by Methuen Publications, 2330 Midland Ave., Agincourt, Ont. M1S 1P7, Can. 160 pp. Illus. 8½ by 11 in. Paperbound. Price \$6.50.

As the title suggests, the book is intended for students. It is designed for use as a textbook in television production courses but it may, perhaps, have special value for the student in industry. Each chapter is preceded by a list of instructional objectives; for example, Chapter 1, on the Television Camera, lists five instructional objectives for the student who, on completing the chapter, "should be able to do the following: (1) Draw a diagram of a television camera, labelling the parts and describing the functions of each." The other four objectives for Chapter 1 and for the nine other chapters are equally practical.

The Chapter headings are: (2) Picture Composition; (3) Lighting; (4) Audio Equipment and Techniques; (5) Video Equipment and Techniques; (6) Graphics; (7) Special Effects; (8) Television Design; (9) Scripting; and (10) Directing. Chapter 6 on Graphics has, for one of its six instructional objectives, "Define the following terms: (a) scanning area, (b) safe title area." The chapter includes a diagram of the SMPTE test pattern for safe action and safe title area and notes that "The Society of Motion Picture and Television Engineers has a standard test pattern to be used as a guide for all television transmission." The book also contains a Glossary and an Index. Numerous illustrations and diagrams supplement the text making it easy for the reader to grasp the essentials of television production.

The authors are affiliated with the English and Communications Division at Seneca College of Applied Arts and Technology in Toronto. Mr. Monty and Mr. Worling are Teaching Masters and Mr. MacRae is Assistant Chairman of the Division. — *Edit.*

### The People's Films: A Political History of U.S. Government Motion Pictures

By Richard Dyer MacCann. Published (1973) by Hastings House, Publishers, New York, NY 10016. 238 pp. Illus. 6 by 9 in. Price \$11.50.

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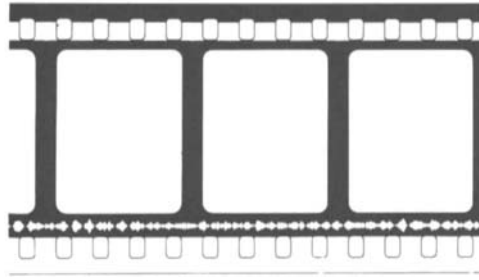
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2

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3

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4

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5

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7

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8

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fold," the author states in the Preface to *The People's Films*, "(1) that there is a crisis in communication in our time; (2) that free communication between experts and the people is vital to the health of a democratic society; and (3) that government is one of many agencies in our society which have immediate moral responsibility for action."

In exploring the ramifications of these assumptions (there is certainly no question of their validity) the author presents an informative survey of the documentary film in the United States (with a chapter on Documentary in England and Canada) with some discussion of the reasons for and the effects of certain documentaries.

One of the most impressive of the documentaries cited is *Before the Mountain Was Moved*, produced under the now defunct film program of the Office of Economic Opportunity during the "last activist gasp" of the Johnson administration. (The author notes that "The OEO experienced a distinct cooling in the ardor for community action under the Nixon administration.") The film is a re-enacted documentary about a group of home owners in West Virginia with "a visible and shocking grievance." Strip miners (as most of us know by now) "take the top off the hills and then go away . . . the rains come and mud roars down on unprotected homes and farms below." The film, by Robert Sharpe, is based on the theme of VISTA volunteers encouraging the victims to take part in political decision-making. The film has a "happy ending" in that it shows that the law restricting strip mining passed the West Virginia State Senate without a dissenting vote.

Described by the author as "a landmark among government productions," it occurs to this reviewer that, admirable as the film is, the author places too much emphasis on its "message" — "The voice of the people has been heeded," he notes. In fairness to the author, whose approach is determinedly objective, it should be recorded that he gives due notice to the possibly dubious slant of most government-produced or government-sponsored films, at least to the extent of quoting the late Senator Robert Taft, "A U.S. documentary film is a U.S. propaganda film," and noting that "the . . . warning still applies."

The book was, originally, a Ph.D. dissertation (Harvard) completed in 1951. The author has added three new chapters, rewritten the first chapter and brought the second chapter up to date. The book contains a great deal of information and sufficient footnotes to attest to the scholarly research engaged in by the author.

Perhaps the most satisfying chapter in the book (and possibly the best organized section) is Chapter 4 — Pare Lorentz: A Bold Beginning — in which the two great historic documentaries, *The River* and *The Plow That Broke the Plains* are discussed. The bitter criticism (of its "message") that followed the premiere of *The Plow* in 1936 is meticulously documented. As the author points out, "There could be no doubt of the hostility of the real estate men."

As an examination of the "political" documentary film this is an important book. It is not a book that is likely to be popular with the mildly interested reader who wants his information on such a spe-

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**bird** (bɜːd) *n.* 1 Any member of the class Aves, which includes warm-blooded, egg-laying feathered vertebrates with forelimbs modified to form wings. 2 A bird hunted as game. 3 *Aero-space Slang* A rocket or guided missile. 4 A target, a *clay pigeon* (see). 5 The feather-tipped object used in playing badminton, a *shuttlecock* (see). 6 *Slang* One who is odd or remarkable. 7 *British Slang* A young woman. 8 *Slang* A detestive sound of disapproval or derision. Used chiefly in the expression *give (someone) the bird* —for the birds. *Slang* (9) objectionable or worthless. —*verb*: **birded**, **birding**, **birds** 1 To observe and identify birds in their natural surroundings. 2 To trap, shoot, or catch birds. [Middle English *brȳd*, *brȳd*, young bird. Old English *brūd*.]

a thousand words



a picture

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cial field of interest made more palatable with a number of "personal" anecdotes, stuffing the somewhat dry pudding of facts with the plums of amusing little "behind-the-scenes" glimpses. The book, it is true, betrays its doctoral origin, and its aim is obviously to inform rather than to please; but for the serious student of film (or of political science) or even for a serious reader of the history of films, this book cannot be ignored. It is a valuable source of information.

(Dr. MacCann, who is presently Professor of Film, Department of Speech and Dramatic Art, University of Iowa, Iowa City, Ia., is the author of the *Journal* paper, "Good Reading About Motion Pictures: An Annotated Bibliography" in the April 1963 issue of the *Journal*.) — *Edit.*

## How To Prepare a Production Budget for Film and Videotape

By Sylvia Allen Costa. Published (1973) by Tab Books, Blue Ridge Summit, PA 17214. 192 pp. 5½ by 8½ in. Price \$12.95.

This is a practical "how to" book intended to give the beginning filmmaker an idea of what he is up against in the financial basics of hiring cast and crew, buying or renting equipment, cost of raw stock, location expenses (including transportation, food, lodging, vehicle rentals, and a number of other items).

The book also discusses such miscellaneous expenses as writers' fees, animal rentals, special effects and insurance. Every item that can affect the overall budget is considered. For example in the chapter on Sound Effects, the author discusses recording, transfers, music, sound effects, narration and mixing. The chapter on Equipment lists in tabular form the major cameras, both 35mm and 16mm, lenses, filters, lighting and sound equipment, among others, showing the approximate price of each item. Sample budgets are given at the end of the book. A glossary of terms used in motion-picture and videotape production is included.

While the book would probably be most interesting to beginning filmmakers it may also be found useful by more experienced professionals as a reference.

One error should be noted. In the Glossary (p. 189) one item is "SMPTE — Society of Motion Picture and Television Engineers that sets standards for the motion-picture industry." It is incorrect to say of the SMPTE or any comparable organization that it "sets" standards. The Society prepares Recommended Practices which, if approved, may serve as a guide in the relevant activity, and it also sponsors drafting of standards which, upon final approval throughout the industry become American National Standards.

Other than this error, the book seems to be an entirely practical and helpful guide for making a film or videotape budget. — *Edit.*

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