

XETRON

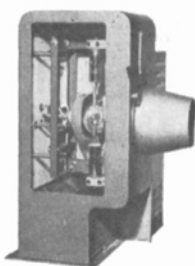
PRODUCTS DIVISION

Special Light Sources for
Audio Visual Applications

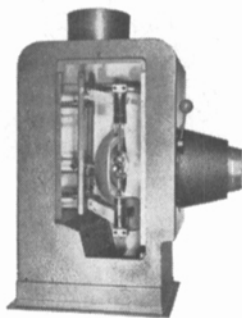
XETRON LAMPHOUSES

XETRON POWER SUPPLIES

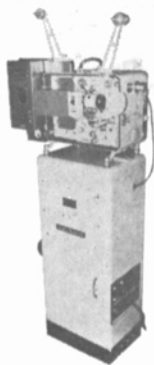
XETRON BULBS



CX-450
Miniature light source
suitable for many 16mm
and 35mm projector
applications.



CX-900 Ideal light source for screening rooms,
laboratories and small theatres. Adaptable to all
projection equipment.



CJX-450
Console version of stand-
ard JX-450 modification
with power supply and
control panel. High in-
tensity type light provides
great increase in screen
brightness.

Also Available

CJX-1000 Provides maximum screen re-
sults for 16mm projector.

Literature on request.
Dealerships available.

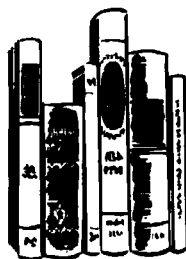
XETRON

PRODUCTS DIVISION



CARBONS, Inc.

10 Saddle Road
Cedar Knolls New Jersey
P.O. Box K 07927



books reviewed

Monobath Manual

By Grant Haist. Published (1966) by Morgan & Morgan, Inc., 25 Main St., Hastings-on-Hudson, N.Y. 10706. 168 pp. Illus. Photos. Diagrams. 6 by 9 in. Price \$6.95.

This book is the first to provide both the advanced amateur experimenter and the photographic chemist with an excellent review of monobath history and current state of the art. Actual formulations and illustrations of usable monobaths, for both film and paper, are included with instructions for their use. Beginners will find the manual helpful in that by its presentations, it effectively simplifies a highly complex area of photographic chemistry.

Commercial monobath products, past and present, are discussed and criticized from the author's point of view. In addition to what we know as combined developer-fixers [monobaths], the author discusses diffusion, transfer developers, both document and pictorial. Viscous and web monobath techniques are described, and formulation examples are presented.

Serious workers will find the literature summary and references extremely helpful as well as convenient. The author's discussion of the philosophy of monobath processing, its advantages, limitations, and its future, are thought-provoking.

Generally, the book is of high quality, with many reproductions of photographs taken and processed in various monobaths by the author. *Monobath Manual* is a highly desirable addition to any photographic library.—Donald J. Sykes, Research Manager, Photographic Div., Phillip A. Hunt Chemical Corp., Palisades Park, N.J. 07650.

Outline of Zetetics:

A Study of Research and Artistic Activity

By Joseph T. Tykociner. Published (1966) Engineering Publications, 112 Engineering Hall, University of Illinois, Urbana, Ill. 61801. 202 + xx pp. 18 Tables, Glossary and Index. 13 Illus. Diagrams. 8½ by 11 in. Ringbound. Price \$2.00.

Zetetics is defined by the author as "the science of research and artistic creation, concerned with collecting and systematizing data on the theory and practice of zetesis and aiming at the expansion and unification of knowledge into a consistent system." *Zetesis* is defined as the "activity of both research and artistic creation." It is a word of Greek origin meaning "seeking."

The book is a reorganization and expansion of an earlier book by Prof. Tykociner

on *Research as a Science — Zetetics* published in 1959. Using this earlier volume as a text, the author began teaching a course in September 1962, under the auspices of the Electrical Engineering Dept., University of Illinois, of which he is a Professor Emeritus. The course was planned to serve as a guide for seniors and graduate students of all disciplines in beginning their careers as researchers.

The present volume is intended to give a more comprehensive description of zetetics, expound its principles, discuss the role of concepts in the advancement of knowledge, define the environmental conditions favorable to activity and describe the organization of research centers. It also contains detailed descriptions of many of the links which bind all the arts and sciences into a dynamic system of knowledge.

Following an introductory chapter and one on the principles of the subject, are chapters discussing the eight basic sciences or subdivisions (of which the last three remain to be written and will appear in a later edition). The headings of these chapters are: Zetegeny; Taxilogy; Problematology; Zetesis; and General Methodology. Titles of unwritten chapters are: Education for Zetesis; Environmental Conditions and Incentives; and Research Centers. The author points out that several of these terms are entirely new and he defines them clearly within the chapters and in a glossary at the end of the volume.

While research was once an occupation of gifted individuals it has now "reached a stage of development unprecedented in its scope and influence on human affairs." It is said to involve more than a thousand branches of science and engineering and to give occupation to about 1% of the manpower of our nation and to consume a large part of the national budget.

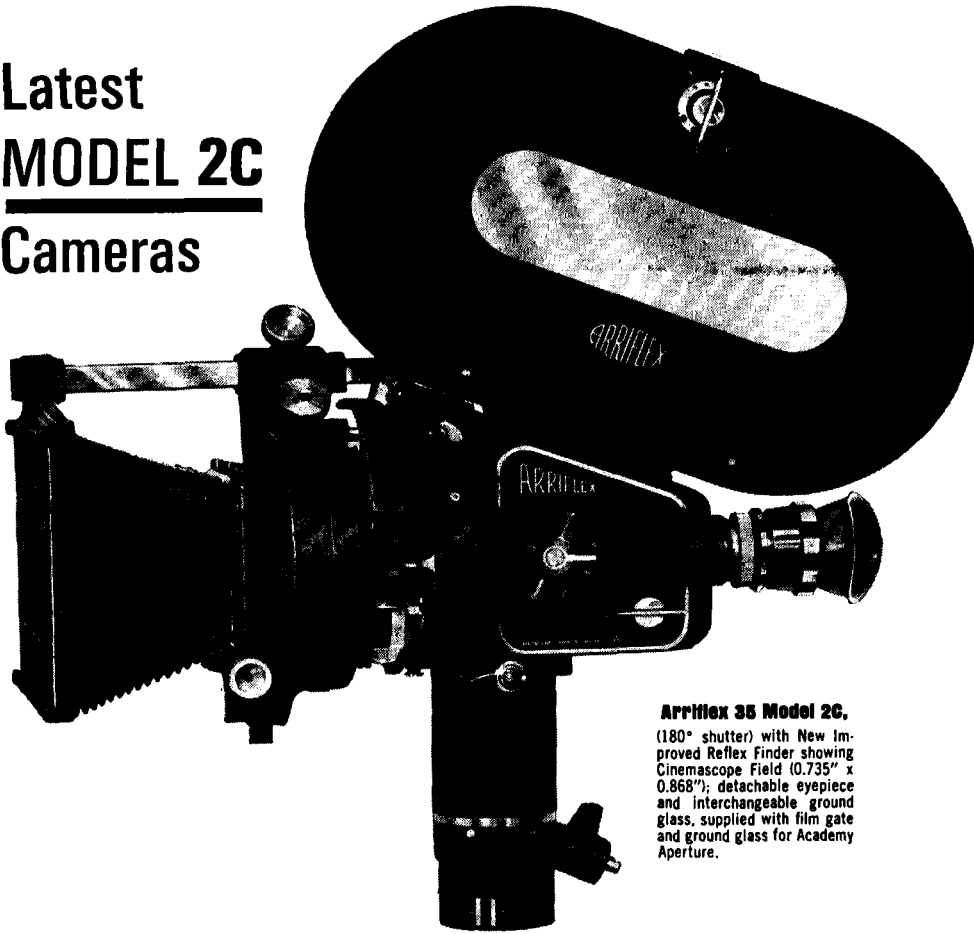
The author contends that research should itself become a field of investigation, a science interrelated with the arts by the creative elements of imagination. In this sense, he states, that research, per se, as a profession has "so far lacked a scientific foundation." His book outlines research in general as such a science, zetetics, and reports on the immediate tasks which have been started towards its further development. He also points out that zetetics is concerned as well with managerial organization, its aim being "to systemize all the information we possess about research and artistic activities, including the creative processes."

The book is a challenging treatise, looking far toward the future. It should stimulate reader and student alike because of its constructive approach to the broad field of human knowledge and its orderly organization for the mutual benefit of mankind.

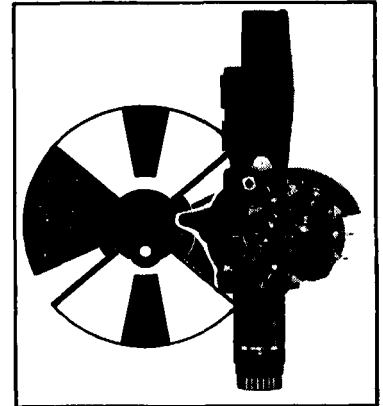
Reviewers Comment: It is both remarkable and commendatory that Prof. Tykociner, at the age of 88, is still writing and teaching technical subjects. It is of especial interest to engineers that he developed and demonstrated one of the first methods of optically recorded sound for motion pictures. This demonstration was given June 9, 1922, at the University of Illinois where he was a research professor in electrical engineering. His paper describing this work was published in *Transactions SMPE* (vol. 16, pp. 90-119, 1923). The title is "Photographic Recording and Photographic Reproduction

ARRIFLEX® 35

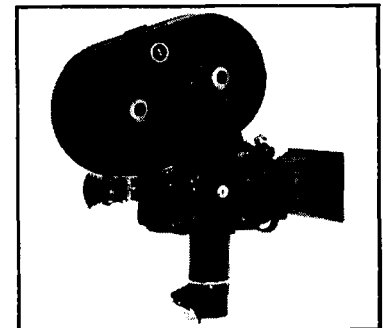
Latest
MODEL 2C
Cameras



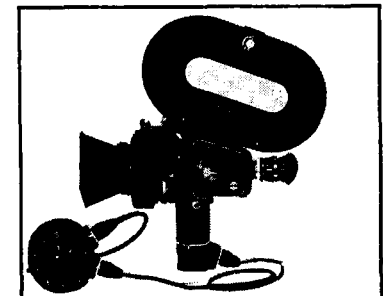
Arriflex 35 Model 2C.
(180° shutter) with New Improved Reflex Finder showing Cinemascope Field (0.735" x 0.868"); detachable eyepiece and interchangeable ground glass, supplied with film gate and ground glass for Academy Aperture.



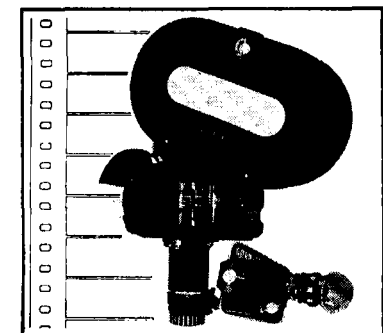
Arriflex 35 Model 2CV. with all features of the Model 2C plus Variable Shutter, adjustable from 0 to 165° opening.



Arriflex 35 Model 2C-6S. same as Model 2C plus Control Signal Generator (24 fps, 60 cycles) and Automatic, Electric Clap-Stick, factory installed.



Arriflex 35 Model 2C-S. with all the features of the Model 2C, plus special 32 volt, DC motor, separate speed-control rheostat, and special tachometer, for operation to 80 fps



Arriflex 35 Model 2C-T. similar to Model 2C, but with movement for two-perforation pull-down and Techniscope film aperture (0.373" x 0.868"), 200° shutter and ground glass marked for Techniscope format. (Uses standard Arriflex 35 200 ft. and 400 ft. magazines.)

Now available at selected dealers
for **RENT, LEASE** or **SALE**

COMPLETELY NEW REFLEX VIEWING SYSTEM

Production is beginning to catch up to the enthusiastic acceptance of Arriflex's brilliant, advanced line of 35mm professional motion picture cameras. These latest 2C models have been worth waiting for—and now that they are becoming more available—worth insisting on!

Featuring a completely new reflex viewing system—larger, brighter field, divisible finder and interchangeable ground glass—Arriflex 35 2C models are the easiest handling, lightest weight, most versatile professional cine cameras in the world. Advantages that have made Arriflex synonymous with the most advanced cinema techniques.

There are Arriflex 35 2C camera models available for every filming assignment—documentary or feature, "shoestring" production or "spectacular." So, for your next assignment, insist on an Arriflex 35 2C. Whether you rent, lease or buy it, you'll be starting out right. With the best.



NEW CATALOG! Just out—our new 12 page, fully illustrated catalog; describes the complete Arri 35 2C system of professional motion picture equipment. Please write for your copy.

ARRIFLEX CORPORATION
OF AMERICA

25-20 BROOKLYN-QUEENS EXPRESSWAY WEST
WOODSIDE, NEW YORK 11377

ANNOUNCING THE NEW METRO/KALVAR PRINTER PROCESSOR

MODEL 135



- No darkroom
- No chemicals
- Desk-top size
- Contiguous operation
- Exposure control
- Long print life*
- Convertible 35/16mm

**Over 200,000 Metro/Kalvar prints in circulation*



METRO/KALVAR INC.
745 POST ROAD, DARIEN, CONN. 06820

of Sound." His interest in the subject began at the age of 16 and continued for many years but he was not able to make much progress until knowledge of amplifiers and loudspeakers became available. In his book (p. 164) he describes several of his experiences that led finally to his successful demonstration of sound motion pictures. He first saw motion pictures projected with the Bioscope in 1897 on Broadway in New York City. His comment was "I was impressed by the technical achievement, but the absence of sound made the show unnatural, and the mute dramatic scenes seemed to me unendurable."—*Glenn E. Matthews*, 55 Stoneham Road, Rochester, N.Y. 14625.



Red Lake Recorder, a new quarterly periodical containing material on high-speed photoinstrumentation equipment, is a publication of Red Lake Laboratories, 2971 Corvin Dr., Kifer Industrial Park, Santa Clara, Calif. 95051. The first issue (Summer 1966, 8pp.) features an article on the application of Hycam equipment to the study of aluminum combustion. It also includes a compilation of technical meetings in the field, covers news of the company and describes a number of recently available accessories and technical advances.

Programmed Basic Electricity Course (272 pp., 4½ × 6½ in.) is available from Theodore Audel & Co., a division of Howard W. Sams & Co., 4300 W. 62 St. Indianapolis, Ind. 46206, at a price of \$4.00. The book covers basic electron theory, direct current circuits, Ohm's law, methods of measurement, power and energy, magnets and magnetism, electromagnets and electromagnetism, generation of alternating current and inductive and capacitive reactance. The content of the book is broken up into 1,000 "frames" of information. Each "frame" is accompanied by a question, advancing in a step-by-step manner to add, in methodical fashion, more information to what has been previously learned.

The Instrument Society of America (ISA) has announced publication of its 31st Recommended Practice, 8.1 Instrument Enclosures for Industrial Environments. Prepared by the ISA Committee on Instrument Enclosures for Industrial Environments, the Recommended Practice is designed to aid in the proper specification and application of instrument enclosures with respect to environmental conditions such as moisture, snow, rain, icing, chemicals, dust, temperature extremes and insects. As a "tentative" Recommended Practice it will undergo an introductory period in industry after which time it will be reaffirmed. The 8-page Recommended Practice is available at a price of \$1.00 for ISA members and \$1.50 for nonmembers from Instrument Society of America, Publications Dept., 530 William Penn Place, Pittsburgh, Pa. 15219.