## Scholarship Awards

The Scholarship Committee has selected two recipients of the SMPTE Scholarship for undergraduate students (*Journal*, p. 121, Feb. 1971) and two recipients of the Academy-SMPTE Scholarship for graduate students (*Journal*, p. 45, Jan. 1971) for the 1971–72 academic year, it was reported by Herbert E. Farmer, Vice-President for Educational Affairs.

Paul Dennis Berg, who is a student at the Rochester Institute of Technology, and Charles George Cyberski, who is a student at Divine Word College (Epworth, Ia.) will each receive an SMPTE scholarship.

Takshi Inagaki, who is a graduate student at Columbia University, and Jay Milton Steinberg, who is a graduate student at the University of Southern California, will each receive an Academy-SMPTE scholarship. (The Academy-SMPTE scholarship was established to facilitate graduate study and research in sciences related to the production of motion pictures.)

Applications from 43 students at 24 different colleges and universities were reviewed by the Committee. The four recipients were unanimously selected.

Mr. Berg was born September 4, 1951, in Queens, N.Y. He matriculated in RIT in 1969 and is majoring in Photographic Science. He worked for the May Camera Company in 1968 and the K&D Camera Company in 1969 (both in Commack, N.Y.) and during the summers of 1969 and 1970 he worked as a photographer and processing technician for Grumman Aerospace Corp. in Bethpage, N.Y. During his freshman year he was elected President of the Freshman Council and went out for Winter and Spring Track. He also helped organize the Talisman Film Festival. He is the author of a paper, "Problems Encountered in Macrophotographic Techniques Utilizing Axial Illumination of Specular Subjects," which has been accepted for publication in *Photo Scientist*.

He is now working toward the B.S. degree in Photographic Science and he hopes to remain at RIT to complete work for the M.S. degree. At present he plans to engage in research, "possibly in photographic chemistry or geometrical optics," he said. He recognizes, however, that as his education progresses and he obtains more exposure to the photographic and photo-related sciences, these ambitions may change as new challenges are presented.

Mr. Cyberski was born February 12, 1949. He entered Divine World College in Epworth, Ia., in 1967. During the summer of 1966 he worked at WJIM-TV in Lansing, Mich., and he also worked as projectionist in four theaters in Lansing during summers from 1966 through 1969. During the summer of 1970, he worked as a film director at KDUB-TV in Dubuque, Ia., and he has continued at KDUB-TV as a film and videotape engineer. In high school he was a National Honor Society student. He is listed in the 1969-70 *College Who's Who* and he has been on the Dean's list for about two years. He is also the Student Representative on the Faculty Council.

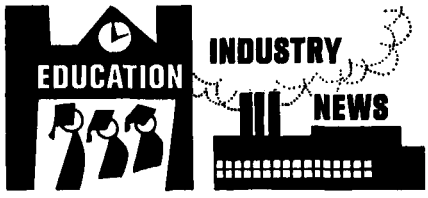
Divine Word College has an enrollment of only 130 students with normal majors in General Science, Philosophy and English. Because of Mr. Cyberski's special interest in film and television, he petitioned the college to set up a special program, enabling him to study the art and science of film and television leading to a degree in that field. His petition was granted, but Mr. Cyberski's required to supply the equipment necessary for him to complete his studies. He is especially interested in the uses of super-8 film and ¼-in helical scan videotape and he has encouraged the use of these formats for educational purposes at Divine Word College.

Mr. Inagaki was born in Tokyo, Japan, October 20, 1946, and has recently become a citizen of the United States. He was graduated from the University of Pennsylvania in 1969 with the B.S. degree in Electrical Engineering. He has worked every summer, beginning in 1964 when he was employed as an assistant repairman in the Hikari Electric Store in Tokyo. He worked as Chief Mechanic in the Brite Star Mfg. Co. in Philadelphia during the summer of 1967 and in 1969 he was in Tokyo where he worked for IBM Japan. At present he is Assistant Technical Director at Columbia University's Film Division where he is working toward the M.F.A.

At the University of Pennsylvania, he was a member of the Cinema Group and the Amateur Radio Club. Since 1965, he has been a frequent contributor of photographs and articles to *Men's Club Magazine*. At Columbia, he has designed and built a split-screen projection and sound-mixing system. He is interested in developing a knowledge of film optics with possible computer application. His interest in this field began in the University of Pennsylvania where he helped produce a computer-animated film. When he graduates from Columbia he hopes to engage in "further study and to develop techniques in film where technical freedom will ensure filmmakers the ability of creative choice," he said.

Mr. Steinberg was born May 22, 1941, in Philadelphia. He attended the University of Pennsylvania (1959–64) where he was granted the B.A. degree in Chemistry and the B.S. degree in Chemical Engineering. He then attended the University of Delaware (1964–66) where he was granted the degree of M.S. in Chemical Engineering. During the summer of 1964 he was employed as a petrochemical engineer by Shell Oil Co. (headquarters in New Or-Orleans, La.) for whom he explored and developed field charts correlating the feasibiilty of oil/gas well drilling. From 1966 to 1970 he was employed by Celanese Research Co. of Summit, N.J., where he was a chemical (fibers) engineer. While he was very successful in this type of work, he did not find it particularly satisfying personally, and he sought for more genuine satisfaction by developing his hobby as a puppeteer and story-teller for children's groups, schools, etc., and through his work with the Save the Children Foundation in the support of a Mescalero Apache Indian boy.

In 1970, he decided to make the break with a successful career and to make the effort to apply his engineering and science skills and talents full time to purposes which he considered more meaningful. He had become interested in educational and instructional film and television and particularly with the newer potentials of distribution such as cartridge/cassettes and CATV. He entered the University of Southern California where he is working toward the M.A. degree in Cinema. He is a member of Tau Beta Pi and Sigma Tau (honorary engineering fraternities) and Delta Kappa Alpha, an honorary cinema society.




**A course in Fundamentals of Motion-Picture and Television Production** offered by the University of Southern California, Division of Cinema, in cooperation with the SMPTE Committee on Education, will begin September 22 and will extend through January 26, 1972. The course is designed primarily for advertising agency personnel and others who need to know the fundamentals of production in order to deal with producers, it was announced by Frank P. Clark, Chairman of the SMPTE Committee on Education. Instructors will include Edward P. Ancona, Jr., Sidney P. Solow, Richard Vetter, Fred Scobey and Bryan Hickox. The course outline includes (in the following order) Visual Perception, Fundamentals of Color, Basic Principles of Light and Lenses, Audio Perception, Visualization and Aesthetics, Films and Formats, Basic Motion-Picture Film Exposing, Film Processing Laboratories, Post-Production in Motion Pictures, Video, Lighting and Recording for TV, Post-Production in Video, The Producer and His Staff, Pre-Production, Production Facilities, and Marketing and Exhibition. The course is noncredit and the fee is $72. Further information is available from Noncredit Programs, University College, Room 355, Administration Bldg., University of Southern California, University Park, Los Angeles, CA 90007.

**The College of Graphic Arts and Photography at Rochester Institute of Technology** will conduct a five-day program, September 13–17, to assist engineers, scientists and technicians in applying photography to data acquisition. The program is divided into five related daily segments to permit participants to register for the entire session or, if they prefer, for one or more of the daily segments. Class sessions run from 8:30 A.M. to 4:30 P.M. each day with optional evening seminar sessions. The first day's session covers the chemistry of the photographic process. The second session deals with statistics; the third,

with sensitometry; and the fourth, with image evaluation. The fifth day is open for discussion of special problems and applications as desired by the participants. Further information is available from William Siegfried, Training Director, College of Graphic Arts and Photography, Rochester Institute of Technology, Rochester, NY 14623.

**New Methods in Optical Design and Engineering** is a new concentrated course to be held January 17–28, 1972, at the Optical Sciences Center, University of Arizona. Course Director is Prof. Robert R. Shannon. Purpose of the course is to acquaint the specialist and nonspecialist engineer or scientist with the latest techniques in designing and engineering optical systems. Emphasis will be on methods of optical design and image analysis. The course will also cover detectors and scanning systems, methods of fabricating optical testing components and details of the tolerancing and specification of complete systems. Prerequisites for the course are an undergraduate degree in Physics or Engineering or the equivalent in industrial experience. Further information is available from Prof. Robert R. Shannon, Optical Sciences Center, University of Arizona, Tucson, AZ 85721.

**A program of post-doctoral studies in communication** limited to a maximum of six students and participated in by invitation only will be inaugurated in September at Temple University, Philadelphia, PA 19122. Purpose of the advanced study program as announced by Kenneth A. Harwood, Dean of the School of Communications and Theater, is to provide for those whose post-doctoral activities include advance research for publication and supervision of graduate research in communications.

**The Photographic Science and Instrumentation Dept. of the School of Photographic Arts and Sciences,** Rochester Institute of Technology, One Lomb Memorial Dr., Rochester, NY 14623, has announced several changes in its undergraduate and graduate programs which will give students greater flexibility in choosing courses of study. Two major changes are (1) a part-time program with courses offered in the late afternoon and evening, leading to a Master of Science degree; and (2) an option for undergraduates to allow the earning of both Bachelor of Science and Master of Science degrees in five years.

**Some 15 filmmaking and research fellowships** are available this fall at the American Film Institute Center for Advanced Film Studies, 501 Doheny Rd., Beverly Hills, CA 90210. The Center's program is open to men and women who are professional filmmakers, to scholars in the early stages of their careers and to university graduates of special promise. The Center provides an environment in which filmmakers can make films and work closely with the finest practicing film artists and craftsmen. A full range of production equipment and facilities is offered including a research library, seminars with leading filmmakers and a film screening program of international cinema. The major cost of study and film production is borne by the American Film Institute with the aid of a grant from the Ford Foundation.

**The International Cartridge TV, Videocassette and Videodisc Conference** sponsored by Billboard Publications, Inc., and VIDCA (*Journal*, p. 310, April 1971) was held in Cannes, France, in April. The Conference included 10 sessions. Cochairmen of the first session were Mort L. Nasatir, Publisher of *Billboard Magazine* in New York, who gave the opening address, and Daniel Cooper, Director of Continuing Professional Development, McGraw-Hill, New York. Speakers from France, Switzerland, Japan, England, Sweden, France and the United States explored every aspect of the impact of the new medium on education, entertainment and industry.

Speaking at the second session (How Creators of Video Disc and Cartridge TV Programs View Their Function), Peter Gruber of Columbia Pictures, Hollywood, discussed the "playback only" devices (EVR, RCA's holographic unit, MCA and Teledec video discs) and "record-playback" (Philips, Ampex, Sony, Panasonic, etc.) and said that "there is no technological possibility of standardization between any 'playback only' systems." He also pointed out the lack of "meaningful" standardization in the record-playback devices.

George Brown, Director of Marketing, EVR Partnership, London, England, said that it was "impossible" to produce a satisfactory counterfeit copy of an EVR program. In reply to a question, he said, "EVR can make copies of any good videotape without any significant deterioration."

Some 50 other speakers from European countries and the United States presented equally down-to-earth and significant discussions. Emphasis throughout the conference was on the incompatibility of existing systems and its effect on the industry. At the closing session it was announced that an International Council for Standards and Compatability had been formed. Announcement was made to some 600 delegates by W. D. Littleford, President of Billboard Publications.

A series of nine booklets grouping talks of similar interest will be published by Billboard Publications, 7 Carnaby St., London, W1, England, at a price of $2.50 for each booklet.

**An exhibit** showing the uses of film in commercial, cable and public television opened June 14 at the Kodak Gallery and Information Center, 1133 Ave. of the Americas, New York, NY 10036, and will extend through August 17. The exhibit included continuous showings of outstanding station-produced news and documentary films and the 1970–71 Clio Award winning television commercials. Displays included film equipment and showed the mechanics of television newsfilm reporting. Film produced in TV stations in the United States and Canada were shown.

**Two crystal-controlled cordless camera drives,** developed by Mace Controls, Inc., of Pasadena, Calif., and Produits Perfectone S.A., of Switzerland, have been demonstrated at the Research Center of the Association of Motion Picture and Television Producers, 8480 Beverly Blvd., Hollywood, CA 90048, which set the specifications for the camera drives. About 95 cameras have been equipped with a cordless drive during 1970, the announcement stated. Basis of the cordless drive is a crystal that vibrates with extreme accuracy, driving the camera motor and the recorder at exactly the same speed, thus eliminating the necessity of tying the two together.

**The Compass Link,** a communications system using high-energy lasers, has been developed at CBS Laboratories, High Ridge Rd., Stamford, CT 06905, for the U.S. Air Force. It is a portable ground system used to record and transmit reconnaissance pictures from Saigon to Washington in minutes via satellite. New optical and electronics techniques are used to relay high-resolution aerial photographs to Washington. Within minutes after photographs have been returned to ground stations in Vietnam by reconnaissance aircraft they are scanned by precisely controlled laser beams. Each visual image is converted to video signals. The signals are then fed to a communication link which bounces them off the U.S. Defense Satellite Network to Washington at the speed of light. A similar receiving and recording station there reconstructs the photographs in their original quality for immediate inspection. Because of the laser-scanning technique, no photographic resolution is lost between recording and transmission from the original film taken in Vietnam. The system can transmit photographs and other visual information in black-and-white or color.

**Birns & Sawyer, Inc.,** 1026 North Highland Ave., Los Angeles, CA 90038, has opened a branch for rental, sale and repair of motion-picture equipment at Ramle, Israel, three miles from Lod Airport. It is the first American cine rental company to expand into Israel. Manager of the new branch is Dany Ben-Menachem. Equipment available at the Israel branch includes the location Filmovan vehicle.

**An opticals printing block** covering 4,000 ft², described as "the most modern of its kind in Europe," has commenced operation at Rank Film Laboratories, Ltd., Denham, Uxbridge, Middlesex, England. Critical 35mm and 16mm optical work, including the Rank Traveling Matte Process, is carried out in a controlled environment. Clean air circulation in the printing room prevents dust from being deposited onto master film material. Air enters the building through filters. The entire unit is pressurized to prevent any inward flow of air from outside sources. Temperature and humidity are controlled to provide stability of film materials and printers. After preparation in the optical masters assembly section on the first floor,

film material is ultrasonically cleaned and sent to the printing area below. Uniform air flow is maintained throughout the printing room by passing filtered air through perforations covering the entire ceiling. The department is equipped with the latest optical equipments including Acme and Oxberry special-effects optical printers and Rank Traveling Matte double-headed beam combiners.

**Cine & Photo Supply Co.,** P.O. Box 393, Khartoum, Sudan, Africa, will supply technical services for the Sudan Film Unit for a period of five years with possible extension of another five-year period, according to a recently signed agreement, it was announced by L. B. Cholakian, Managing Director of Cine & Photo Supply Co. The services will include supply of raw film stock and chemicals for processing; supply of equipments, spare parts and accessories; service of existing equipment; completion of work on documentary films in black-and-white and color and technical advice and assistance to the Sudan Film Unit. The firm supplies professional motion-picture equipments to government ministries and departments throughout the Sudan. It also produces and distributes motion-picture films. It was the first Sustaining Member of the Society in Africa.

**Technicolor, Inc.,** of Hollywood and Movielab, Inc., 619 W. 54 St., New York, NY 10019, have announced that agreement in principle has been reached toward a merger. Under terms of the merger agreement, Technicolor will issue 175,438 shares of its stock in exchange for the 1,407,266 shares of Movielab stock currently outstanding.

**Hololock,** a lock and key system based on a laser-made hologram, is used at Laboratories RCA, Ltd., in Zurich, Switzerland. An employee of the Laboratories' technical center carries a card with a laser-hologram. The hologram contains a coded number and other information about the employee carrying it. When inserted into a slot in a special box at the center's main entrance, the card's number is read out by illumination with a standard light bulb. The number is then compared with a number punched into an associated keyboard by the employee. If the two match, the door unlocks for 90 seconds. The system also keeps a record of the times each card is used.

**The Rank Organisation** has acquired a one-third interest in Technochrome, S.p.A., of Rome, one of the major film laboratories in Italy, as the result of an agreement between Rank Film Laboratories, Ltd., Denham, Middlesex, England, and Technochrome to provide an international processing network linking the major European film studios. Chairman of the Technochrome Board of Directors is Alberto Genesi. Raymond Dutfield, Managing Director of Rank Film Laboratories, and Cesare Augusto Tifi are joint Managing Directors of Technochrome. Other members of the Board are John W. Ratcliffe, Marketing Director of Rank Film Laboratories, Carlo Genesi and Giorgio Genesi.

**EVS-Advertel, Inc.,** is a newly formed subsidiary of Electrographic Corp., 305 E. 45 St., New York, NY 10017. It is engaged in videotape finishing, duplication and distribution for the television industry and for video cassettes in the home entertainment field. President of EVS-Advertel is Peter Hollidge.

**Electro-Voice, Inc.,** Buchanan, MI 49107, and Sennheiser Electronic of Wennebostel, Germany, have entered into an agreement providing for a broad exchange of patents relating to microphones, according to a recent announcement. The agreement, signed in Wennebostel by Lawrence LeKashman, President of Electro-Voice and Prof. Dr.-Ing. Fritz Sennheiser, sole owner of Sennheiser Electronic Co., is aimed at producing high-quality products and precluding possible adverse effects resulting from divers patents of the two firms.

**K. Blair Benson** has been appointed Vice-President, Technical Development, CBS Electronic Video Recording Div., Columbia Broadcasting System, West Volvo Dr., Rockleigh Industrial Park, NJ 07647. Mr. Benson has been with CBS since 1948 and since 1967 he had been Staff Consultant, Advanced Technology for the CBS Television Network Engineering and Development Dept. Prior to his present appointment he had served as a consultant to EVR on part-time loan from his network duties and he had assisted in coordinating EVR development and manufacturing activities. Mr. Benson has contributed significantly to improvement of film recording and film broadcasting and he has been deeply involved in all phases of videotape technology. He has also contributed to world-wide broadcast industry standardization. Before joining CBS, Mr. Benson was Assistant Chief Engineer of the U.S. Television Company in 1947, following six years in radar and in radio and television receiver design at General Electric.

**Leonard W. Keck** has been elected Chairman of the Board of Directors of Calvin Communications Inc., 215 W. Pershing Rd., Kansas City, MO 64108, and William D. Hedden is Vice-Chairman of the Board. Donald S. Phillips has been appointed President; Larry A. Kauffman has been appointed Production Division President and William M. Bowles has been appointed Laboratory Division President.

Mr. Phillips has been with Calvin for 10 years, beginning as a motion-picture producer/director. Mr. Kauffman has been with the firm for 15 years. As a producer/director he received several national awards for film excellence. Mr. Bowles has been with the firm for four years. He was formerly with Religious Film Productions in Tulsa, Okla.

**Norman Macbeth** is the recipient of the Godlove Award of the Inter-Society Color Council. The award is presented biennially to the person selected by the Council's Godlove Award Committee for outstanding contributions to the knowledge of color in science, art and industry. Mr. Macbeth was cited for his outstanding contributions to the application of scientific results in the field of lighting as it affects color. The Godlove award consists of a plastic tetrahedron in which are embedded plastic sheets dyed in the three subtractive primary colors (yellow, magenta and cyan) placed to form an inner tetrahedron. Engraving at the base of the award includes the name of the recipient and the date of presentation.

**Donald Fink** is the recipient of a citation for his important contribution to international promotion of monochrome and color television. The citation was presented to him by the Symposium International de Television held in Montreux, Switzerland, in May 1971. Mr. Fink is General Manager of the Institute of Electrical and Electronic Engineers.

**Richard F. Dubbe** has been appointed Project Manager, Electron Beam Recording Products, 3M Company, Minicom Div., St. Paul, MN 55101. Mr. Dubbe has been research manager for electron beam products. In his new post he will be responsible for product marketing in addition to continuing to manage the laboratory work. The project is developing the Chromabeam EBR system for converting color television signals to color motion-picture film.

**Robert F. Fischer and Joseph B. Houston, Jr.,** have been appointed Staff Assistants to the President of the Electro-Optical Div. of Kollmorgen Corp., Northampton, MA 01060. Mr. Fisher has been with Kollmorgen since 1963. He has been involved in the development of submarine periscopes and related electronic systems. Mr. Houston joined the firm in May 1971. He was formerly with Itek Corp. as Chief Optical Engineer for underwater systems.

**Bob Jushner** has joined Lite-Trol Service Co., 72 Glenwood Rd., Glen Head, NY 11545. He was formerly Vice-President of Engineering, Research and Development for Century Strand, Inc. Lite-Trol is a lighting control system service organization.

**Albert Duryea** has been appointed Vice-President of Technical Operations for Precision Film Laboratories, Inc., 894 E. 51 St., Brooklyn, NY 11203. Mr. Duryea has been with the firm since 1968 as Chief Engineer. He was formerly with Pathe Laboratories and in 1960 he became a private consultant.

**G. Norman Penwell** has been appointed Vice-President of Research of Malarkey, Taylor & Associates, 1225 Connecticut Ave., N.W., Washington, DC 20036. He was formerly Engineering Director of the National Cable Television Assn.

## Academy Awards

Five awards in the Scientific or Technical category were presented at the 43rd Annual Academy Awards presentation held during April 1971. Only one Class II award was presented. That award went to *Consolidated Film Industries* for the development and invention of an innovation in film processing called Proof-Print, a method of color correcting first trial answer prints. With the new process, which bridges the gap between the video analyzer and the first print, the producer receives a first trial color answer print with each scene completely color corrected. The process was originally conceived by CFI Engineer, Leonard Sokolow. The first Proof Printing machine was constructed under the direction of Edward H. Reichard, Vice-President and Chief Engineer of CFI. This is the ninth Academy Award presented to Consolidated Film Industries.

Class III Awards were presented to:

*Sylvania Electric Products Inc.* for the development and introduction of a series of compact tungsten-halogen lamps for motion-picture production. The series consists of high-wattage lamps for set lighting which maintain stable color temperature and high lumen output throughout their lives. The lamps are designed to fit existing studio fixtures and their compactness permits improved luminaire design. The series includes a 10,000-W version and a battery-operated portable Sun Gun equipped with tungsten-halogen lamps.

*B. J. Losmandy of Opamp Labs* for the concept, design and application of microminiature solid-state amplifier modules used in motion-picture recording equipment. The use of the electronic modules has improved and simplified the design of audio circuits while affording increased reliability and compactness of recording equipment.

*Eastman Kodak Co.* and *Photo Electronics Corp.* for the design and engineering of an improved video color analyzer for motion-picture laboratories. The instrument utilizes a single black-and-white cathode-ray display tube, black-and-white circuitry and a revolving cylinder with appropriate red, green and blue filters. It is a stable and reliable laboratory tool for determining the optimal color and light intensity required to print negatives, interpositive or reversal originals.

*Electro Sound Inc.* for the design and introduction of the Series 8000 Sound System for motion-picture theaters. This is a modern theater sound system, engineered to supply high-quailty sound reproduction for a multiplicity of soundtrack modes. Advanced control circuitry for input switching, volume adjustment and changeover are provided at each projector to facilitate skillful motion-picture presentation.

## Biographical Note

Carroll H. Dunning, a Life Fellow of the Society, was born August 19, 1881, in Denton, Md. He was graduated from Denton High School in 1898.

In 1916 he joined with William Van Doren Kelley and Wilson Saulsbury to form Kesdacolor (Kelley-Saulsbury-Dunning) to promote the invention of a two-color additive line-screen process. The initial showing of this process was a 100-foot scene of the American flag exhibited simultaneously at the Rialto, Rivoli and Criterion theaters in New York on September 12, 1918. It is interesting to note that the price of $1.50 per foot was for a product considerably inferior to the present-day three-color subtractive prints costing less than 6 cents per foot.

Kesdacolor evolved into a new company, Prizma Color. Mr. Dunning became Vice President, and Mr. Kelley became Technical Director. In 1922 the first feature-length picture was released in Prizma Color. This picture, *The Glorious Adventure,* starring Lady Diana Manners, was produced in England by J. Stuart Blackton. The cinematographer, William Crespinel, later became the President of Cinecolor Corp.

In 1925, Dunning moved to California and a year later opened a laboratory which he operated with his son, Dodge,