Report on the Fourth Annual Tutorial Seminar of the Chicago Section

By BYRON L. FRIEND

In continuation of its leadership position within the midwestern audiovisual communication industry, the Chicago Section of the Society of Motion Picture and Television Engineers held its Fourth Annual All-Day Tutorial Seminar on Saturday, 21 April 1979, at the Ramada-O'Hare Inn, Rosemont, Ill., near Chicago's O'Hare Airport.

Robert M. Smith, Du Art Film Labs, Inc., and President of the Society; Leonard F. Coleman, Eastman Kodak Co. and Sections Vice-President; Daan Zwick, Eastman Kodak Co. and Vice-President for Photoscience Affairs; Central Region Governors: William H. Smith, Allied Film Laboratory; John M. Ehrenberg, Bell & Howell; and Southern Region Governor John M. McDonough, Eastman Kodak Co., were joined by over 200 audiovisual communicators, scientists, engineers, and technicians, as prominent practitioners from the industry presented a well-balanced program of both film and tape.

Dealing as it does with the application of current technology to everyday practice, this annual educational experience continues to attract an increasing number of participants from an ever-expanding geographical area. The program has special appeal to in-plant, agency, and higher education oriented practitioners.

Again this year, 24 of the area's leading audiovisual companies helped underwrite the modest cost of this tutorial seminar, and their continued support of this educational activity continues to be an inspiration to the seminar committee.

In his opening remarks at the beginning of the day's activities, Leonard Coleman, Sections Vice-President, reminisced of his own experience as a member of the Chicago Section in years past. He commended the present officers and board for their continuation of those programs which have earned, for the Chicago Section, an enviable reputation among all Society members and expressed his hope that such activities be continued in the future.

At noon, the traditional roast beef luncheon was held in the Penthouse Ballroom, site of the Chicago Section's Annual Midwinter Symposium/Chairman's Reception and Awards Banquet.

Speaking briefly, Society President Robert Smith indicated that all aspects of the Society are in capable hands. He was most complimentary concerning the year-to-year activities of the Chicago Section and the leadership position it has earned and went on to discuss his forthcoming official visit to the People's Republic of China, promising to give the Chicago Section a report on that country's audiovisual industry upon his return.

Both morning and afternoon sessions opened with film screenings, as is customary with the Chicago Section. A highly sensitive documentary film, *Sailing Moods*, produced, directed, and photographed by Past-Chairman Jack Behrend, began the morning session. This film captured in beautiful detail the many moods of the sun, sky, and sea as seen from the deck of a small yawl in transit between Newport and Cabo San Lucas.

Following the opening remarks by George Halonen, Colburn Film Laboratory and Chairman of the Chicago Section SMPTE, the morning papers session began with another film, *Jimmy the C*. This hilarious, animated clay, short subject served well in heightening the anticipation of the audience for the papers to follow. Nominated for an Academy Award, *Jimmy the C* was produced by Jimmy Picker and animated to the Ray Charles version of *Georgia on My Mind*.

The afternoon papers session began with a screening of the Academy Award-winning film from the National Film Board entitled *Special Delivery*. This highly entertaining short subject was produced by John Weldon and Eunice Macaulay.

Past Section Chairman Edward Blasko, Eastman Kodak Co., was Chairman for the morning papers session, and Byron L. Friend, Telecine Film Studios, Past Section Chairman and founder of the spring All-Day Tutorial Seminar, was Chairman for the afternoon papers. Brief descriptions of the papers are given below.

"Digital Video Applications" by *John Lowry, Digital Video Systems, 519 McNicoll Ave., Willowdale, Ontario, Canada M2H 2C9*

In a presentation completely devoid of visual aids, John Lowry captivated the audience with a masterful presentation, explaining briefly and nontechnically what digitalization is and how it works. He went on to discuss the current impact of the technology upon the industry and the possible impact in the years to come.

Much has been written about the design parameters of digitalization, but few have addressed themselves to the users of the equipment. Lowry opined that most experienced television people having learned to work with highly sophisticated videotape editing systems should have no difficulty in mastering the relatively few concepts involved in the digital technology.

One of the key advantages of digital technology lies in the fact that the electronic signals are regenerated at every logic element, hence it is possible to do a lot of information processing with no signal-to-noise degradation. In discussing the broadening use of digital technology in special effects it was noted that its high stability and accuracy make possible the combining of functions such as frame synchronizers and time base correctors. Additional digital enhancement of the video image might include compression, enlargement, repositioning of the video image, and other effects formerly limited to optical techniques.

In the foreseeable future, it may be possible to do television productions on stages that are totally empty except for the actors. Both backgrounds and foregrounds could be filled in by digital electronics, perhaps giving rise to digital libraries for use by set designers and others. Lowry, in painting a bright picture for the future, indicated that some quantum step is needed in terms of performance, operation ease, and serviceability before digital videotape recording becomes viable.

"Viewing Conditions for Films Intended for Television Viewing" by *Daan Zwick, Eastman Kodak Co., Research Labs, Kodak Park, Rochester, NY 14650*

The Vice-President of the Society for Photoscience Affairs, Daan Zwick, made an excellent, nontechnical presentation on the benefits of creating a "standard" viewing condition for films intended for television use. The value of such a standard or common preview condition is obvious if laboratories, producers, and broadcasting organizations are to have a common criterion for good film quality.

This well-illustrated paper suggested the concept of an optical projection room for the evaluation of films, to determine their suitability for television transmission. The room described conforms to the Recommended Practice for Television Review Rooms (ANSI PH22.148-1967, R1978). Its essential features are a relatively small screen with an open screen brightness of about 40 fL at approximately 5400 K, surrounded by a large field surround of a neutral gray, averaging one-tenth the brightness of the open screen. The rear wall of the projection room was painted dead black to reduce reflection of ambient light.

Test results indicate that a film which has an acceptable color balance in this television review room is very likely to have acceptable color balance on a properly adjusted television film chain, hence the television review room can be used to make valid predictions of the picture quality of television films.

This report was submitted on 2 July 1979 by Byron L. Friend, President, Telecine Film Studios, 654 Busse Highway, Park Ridge, IL 60068.

Photos courtesy of Kenneth R. Knaus, Eastman Kodak Co., 1901 W. 22nd St., Oak Brook, IL 60521.

Discussions in small groups are a valued part of such meetings. From left to right: SMPTE President Robert M. Smith, Chairman of the Chicago Section George Halonen, and Sections Vice-President Leonard Coleman.

Many officers of the Chicago Section were on hand and paying rapt attention to the presentations. Past-Chairman Byron Friend and Edward Blasko — Chairman of the afternoon and morning papers sessions respectively — were two of them.

"Videodisk, Update Report" by *Robert Paulson, AVP Communications, P.O. Box 454, Westborough, MA 01581*

Occupying a consulting position which allows for maximum objectivity, Paulson speaks with a great deal of authority on the subject of videodisk machines and their technology. Despite the many activities reported in various trade journals to the effect that at long last the videodisk is "here," Paulson strongly disagrees. Broadly classifying the videodisk as a program delivery system, Paulson takes the position that the longer it takes for such a system to become standardized, the more competition it faces from alternative physical and electronic means of program distribution. Perhaps there will come a time when the technology of such alternative sources may well spell the death knell of videodisk profitability.

In support of this position, he broadly discussed some of those alternatives: videocassette recorders/players, satellite radiated transmission, and light stimulated fiber optics transmission, all of which are in profitable operation today. In contrast, videodisk technology still embraces several proprietary, incompatible systems ranging from the use of lasers to capacitive readouts and the more recent digital videodisk.

"Computers and Color Television" by *Tom DeFanti, University of Illinois, P.O. Box 4348, Chicago, IL 61801*

Professor DeFanti, one of the leading practitioners in the design and use of computer generated graphics, video synthesizers, and colorizers, described his involvement with the digital computer graphic effects used in the theatrical picture *Star Wars*. The attention of the audience was riveted to the television monitors around the room as he narrated a tape demonstrating how effects were created, generated, processed, and refined.

Another demonstration tape showed a wide variety of experimental shapes, forms, figures, and colors made possible through the use of a variety of "black" boxes. Such devices offer not only sophisticated image generation but processing and manipulation of color and shapes according to varying inputs. Raster manipulation is another television technique which alters the time sequence in which we view the raster lines of the video image. When distorted with analog voltages, unique effects are possible.

Looking into the future, DeFanti sees synthesizer and computer graphic systems taking a quantum leap forward. The advent of LSI (large scale integration) technology makes low cost generators, computers, and other modules readily available to the serious practitioner.

"In-House Video Production" by *Tom Richter, Standard Oil Co. of Indiana, 200 E. Randolph St., Chicago, IL 60601*

Richter, having faced the denouement of the Standard Oil Co.'s complete in-house television production facilities, spoke of that recent experience. Effectively using but one visual aid — a graph in which television equipment expenditures were plotted against their program application — his presentation engendered more audience involvement than any other on the day's program.

Application is most important: one does not need expensive equipment and personnel unless one can profitably employ them in the creation of software. The television engineer's need to be concerned with the applications of his equipment was stressed. When utilizing an in-house charge-back system, everyone must be concerned with the department's ROI (return on investment). There have been instances in the past where television engineers failed to face the economic reality of equipment being a part of the total profit center. New equipment purchases have not always been coordinated with profitable application. Richter cautioned other in-house television production units to always keep their equipment just a little short of application needs, rather than the other way around.

Since closing their television facility the Standard Oil experience has shown that purchasing productions, on the outside, costs about the same as the true cost of in-plant productions, particularly if the employee benefit package is included.

"Imagery, Today and Tomorrow" by *Tom Hope, Hope Reports, 919 W. Winton Road, Rochester, NY 14618*

Because of a last-minute conflict in his schedule, Tom Hope was unable to appear in person. Thoughtfully, however, he provided a surrogate in the form of a tray of 35mm slides and a cassette tape.

Hope's recorded message spanned over 50 years from the time that the 16mm format was first developed and continued through to the present. His amply illustrated presentation took a brief look at the audiovisual media mix and concerned itself with the growth of each medium through the years. He closed his message with an in-depth look at the top eight market areas for audiovisual hardware and software.

"Image Clarity and Viewing" by *Ken Richter, Richter Cine Equipment Co., Essex, NY 12936*

Richter made a most impressive presentation concerning various factors involved in getting the sharpest possible 16mm picture on large screens. This noted cinema engineer and travel lecturer explained in detail the various elements to be considered in getting a high quality image on the screen: ranging from the resolving ability of the camera rawstock, through the camera equipment, the laboratory, and finally the projection system, each a contributing factor to ultimate screen sharpness. Seen as links in a chain, the weakest link is perhaps the quality of the standard 16mm projection lens.

To emphasize his talk, Richter showed and narrated a portion of a dance film he had photographed in Austria.

"The Zany Side of Location Work and a Film Excerpt" by *Ross Lowell, Lowell Light Engineering, 421 W. 54th St., New York, NY 10019*

This highly entertaining cameraman, director, producer, and inventor described many of the bizarre experiences that he had on locations around the world. In reminiscing about these anecdotal classics, he took the audience through a wide variety of production experiences from the *banditos* of Colombia, South America, playing roulette with his equipment to the wide variety of seasonable or unreasonable demands producers seem to impose on people who don't understand why we need Christmas trees in July and cars with two doors on one side and only one on the other.

The Fourth Annual All-Day Tutorial Seminar of the Chicago Section SMPTE was produced by the following committee members: George Halonen, Colburn Film Laboratory, Section Chairman and Chairman of this event; Assistant Chairman, Michael H. Bailey, Allied Film Lab, Section Secretary/Treasurer; Program Chairman, Jack Behrend, Behrends, Inc.; Promotion/Publicity, Edward Blasko, Eastman Kodak Co.; Production Advisor, Toni Roth, Image Transform; Arrangements, Byron L. Friend, Telecine Film Studios; Arrangements, Norman Thelen, Encyclopedia Britannica Educational Corp.; Sponsors: Past-Chairman, Chuck Zichterman, Peterson Enterprises, Inc.; Finance, Roland Johnson, Eastman Kodak Co.

Plans are already well-advanced for the 1980 Fifth Annual Tutorial Seminar to be held at the Ramada-O'Hare Inn on Saturday, 10 May 1980. The Chicago Section wishes to extend a cordial invitation to all officers and members of other sections to attend.

Standards & Recommended Practices

Proposed SMPTE Recommended Practices

Three Proposed SMPTE Recommended Practices are published here for a trial period and public review: RP 94, Gain Determination of Front Projection Screens; RP 95, Installation of Gain Screens; and RP 96, Specifications for a Subjective Reference Tape for ¾-in Type A Helical-Scan Video Tape Reproducers for Checking Receiver/Monitor Setup.

A method for measurement of screen gain is specified in RP 94. RP 95 provides optimum installation parameters for gain screens. The subjective reference tape specified in RP 96 serves a dual purpose: verifying that the video cassette playback system is operating normally and providing reference signals for adjusting the operating controls on the receiver or monitor for best picture quality. A cassette conforming to the practice is available from the Society.

Comments on the Proposed SMPTE Recommended Practices should be addressed to Alex E. Alden, Manager of Engineering Services, at Society headquarters prior to 1 December 1979. If no adverse criticism is received, they will be submitted to the Society's Board of Governors for final approval.

Approved International Standard

The International Organization for Standardization (ISO) recently approved an International Standard, the technical content of which is published here for your information. ISO 4244-1979, Cinematography — Photographic Sound Record on 8-mm Type S Motion-Picture Prints — Position and Width Dimensions, is in agreement with American National Standard PH22.182-1978.

One-Inch Type A Helical-Scan Video Recording

The Society's Video Recording and Reproduction Committee voted to discontinue standardization activities on all 1-in Type A video recording proposals. The decision was made because the system is no longer being manufactured. —*Alex E. Alden, Manager of Engineering Services*