

Inter-Society Color Council *News*

IN THIS ISSUE

CONTENTS	Pg. #
ISCC First Annual Dinner	1
From the President	1
NEWS OF MEMBERS:	
Coast Guard Project	1
Hammel & Co. formed	2
Jameson & Hurvich honored	2
NEWS FROM MEMBER BODIES:	
Optical Society of America	2
SPSE	2
GIA	3
GATF	3
SMPTE	4
SID CALL FOR PAPERS	4
NEWS FROM OTHER ORGANIZATIONS:	
The Colour Group (G.B.)	5
International Soc. Opt. Eng	5
Univ. of Wisconsin	6
National Gallery of Art	6
Harpers Ferry Textile Grp	6
CALENDAR	6

Number 321

September/October 1989

ISCC FIRST ANNUAL DINNER MEETING

How many of these people do you recognize? We thought you might be interested in refreshing your memory of those who are responsible for support of the birth of the Council. Some of the faces are still with us while some are not. This picture was supplied by Jaqui Welker who is interested in attaching names to as many as possible of the faces seen here. While there are still some among us who were present at this first annual dinner meeting not too many of us are able to recognize people from a picture made nearly sixty years ago. I believe that I recognize Dave MacAdam and Dick Hunter as being present. Only the nearest eight or nine tables are distinct enough that there is a reasonable chance to identify the participants. If you know who any of these people are please let Jaqui know—will you? Thanks. *Bonnie Swenholt*



FROM THE PRESIDENT

I would like to remind you to send nominations for the Nickerson Service Award to Harry K. Hammond III, who is Chairman of the Nickerson Service Award Subcommittee. Harry's address, as well as the addresses of others mentioned in this column, can be found in the ISCC Membership Directory. The nomination should include a list of the individual's contributions to the ISCC. It is important to make the effort necessary to show appreciation for those who devote time and energy to making the ISCC an organization of value to all of us.

The ISCC has issued an invitation to the International Colour Association (AIC) to hold the 1992 AIC Interim Meeting in the United States in conjunction with an ISCC Annual Meeting. If the invitation is accepted, the ISCC Annual Meeting for that year will be held in June, rather than in April, at Princeton University. The joint ISCC-AIC symposium will immediately follow the regular sessions of ISCC Project Committees and Interest Groups, extending the meeting to 3 1/2 days. The topic of this important international symposium would be developments in computer colorant formulation.

Between now and 1992 there are a number of outstanding meetings and conferences planned. First will be the Williamsburg Conference, "Color Discrimination Psychophysics", to be held November 28-December 1 this year. You will already have received the notice for this meeting. Outstanding speakers are scheduled and the number of people attending is restricted to allow a meaningful dialog between speakers and participants.

The ISCC Annual Meeting for 1990 will be held in Cleveland April 22-24 and will be followed immediately by a symposium on color and appearance instrumentation, called a SCAI Conference, on April 25-26. The SCAI portion of meeting is being arranged by the national Federation of Societies for Coatings Technology while the Cleveland Society for Coatings Technology (CSCT) is co-sponsoring the ISCC program. The topic of the ISCC-CSCT

general session is "The Art and Science of Appearance" while the topic of the SCAI conference is "Combining Appearance and Color".

In other words, the two sessions will complement one another and are being planned in close cooperation. The individuals planning the ISCC and SCAI programs are members of both organizations. James E. Grady and Jacqueline Welker are in charge of the ISCC program, while Ralph Stanziola and Romesh Kumar are planning the SCAI program of lectures. In addition to this ISCC-CSCT program on color appearance, the four ISCC Interest Groups will have their own programs built around the interests of their particular group, and, of course, the ISCC Project Committees will hold their meetings. As usual at SCAI conferences, there will be a special exhibition of the latest in color instrumentation. This exhibition and the workshops are being arranged by Charles Leete.

As described in my last column, in February of 1991 there will be a Williamsburg Conference on problems inherent in lightfastness determination. This conference will be co-sponsored by the American Association of Textile Chemists and Colorists (AATCC). Jacqueline Welker and Raymond Kinmonth are planning the program with AATCC with input from other ISCC Member-Bodies.

For the Annual Meeting in April of 1991 the emphasis of the main program will shift to the arts. The Meeting will be co-sponsored by The Color Association of the United States (CAUS) and will be held in New York City, if reasonable accommodations can be found. Evelyn Stephens and James DeGroff have already begun the planning necessary for a successful meeting.

In planning these meetings and conferences there is an effort to implement suggestions made in answer to a questionnaire distributed to ISCC members back in 1985. The replies to that questionnaire indicated a strong preference for ISCC programs with a theme, where a topic could be covered in depth. At the same time there should be presentations of interest to the varied

membership of the Council at every meeting. The Interest Groups were established, in part, to assure that at every meeting there will be programs tailored to the interests of members from different fields and a general program with papers that cover a particular topic thoroughly.

Joy Turner Luke

NEWS OF MEMBERS

U.S. COAST GUARD DAYBOARD PROJECT - A SEARCH FOR OPTIMUM RED AND GREEN COLORS

Dayboards are navigational signs used by mariners to safely navigate in restricted waters. Present dayboards are either red triangles or green squares composed of fluorescent elastomeric film bonded to plywood. Due to the fading of the fluorescent pigments the average life of the dayboard is two years.

Significant cost savings can be realized if the average life of the dayboard can be extended to five years. This may be possible by using materials and colors which meet the engineering and operational requirements of dayboards.

To investigate new materials the U.S. Coast Guard has initiated a 5-year dayboard project. The scope of the project includes:

- 1) Performing a technical evaluation of materials that can survive five years in a marine environment.
- 2) Determining optimum red and green colors for dayboards.
- 3) Building and testing 36 prototype dayboards.
- 4) Conducting accelerated weathering tests of new colored materials.
- 5) Measuring detection and recognition distances of present and proposed dayboards.

The technical approach to the project is to build on prior research the Coast Guard has sponsored to improve dayboard conspicuity and life. Colored materials such as films, composites, paints, fabrics, metal, etc. will be evaluated. After determining life cycle costs of proposed dayboard systems, the most promising dayboard materials will

be purchased and dayboards constructed for operational tests.

The project manager for this effort is ISCC member Wayne Fisher. His immediate need is identifying brightly colored red and green materials which could possibly be used as navigational signs. Anyone interested in details of this project can contact Mr. Fisher at the following number 401-849-5952 X232. *Wayne Fisher*

HAMMEL & COMPANY ESTABLISHED

Michael A. Hammel, who has worked for over 20 years in the field of appearance measurement, recently formed Hammel & Company. It has been appointed exclusive agent for Macbeth Division of Kollmorgen Corp., to serve New York and the New England States, from offices near Rochester at 98 Grand View Drive, Fairport, NY 14450, Tel. (716) 223-1823, FAX (716) 425-2411.

HONORARY DOCTORATES AWARDED TO "DOTTIE" JAMESON AND LEO HURVICH

In recognition of the significant contributions by these two outstanding research scientists to our understanding of human color vision The State University of New York at the State College of Optometry awarded honorary Doctor of Science degrees to Dorothea Jameson and Leo Hurvich at the June 4, 1989 commencement in New York City. I am sure that most if not all of our members are familiar with the work of Leo and Dottie, both of whom have made significant contributions to many ISCC programs.

NEWS FROM MEMBER BODIES

OPTICAL SOCIETY OF AMERICA

On July 12-14, 1989, a Topical Meeting of the Optical Society of America, on "Applied Vision", was held in San Francisco, California. Although most of the program was not concerned specifically with color, the subject was prominently mentioned. A special feature of the meeting was an invited paper by Donald H. Kelly called "Forty Years of

Image Technology and Vision Research: A Personal Memoir" which revealed, among many other things, Kelly's contributions to the Technicolor process about 40 years ago.

A major theme of this meeting was a concern with "image compression" schemes for the more efficient transmission of pictorial information. It is now generally accepted that a model of human visual system, including the processing of color, is absolutely required for such procedures to work. The impending development of high-definition color television (HDTV) raises especially interesting problems for efficient and accurate color transmission and rendition. Taiji Nishizawa, of the Japan Broadcasting Corporation, indicated that HDTV is only a year or so away from its commercial realization in Japan.

A Session concerned specifically with color dealt with color rendering, color theory, and color coding, as related both to hardware and vision.

James Larimer, the organizer of the session, plans a special issue of the *Journal of the Optical Society of America* in which some of the papers will be published. Readers interested in the 184-page book of abstracts should contact the Optical Society of America, 1816 Jefferson Place N.W., Washington, D. C. 20036 for Volume 16 of the 1989 Technical Digest Series which costs \$35.00.

Robert M. Boynton

THE SOCIETY FOR IMAGING SCIENCE AND TECHNOLOGY (SPSE)

The SPSE will hold the "Symposium on Electronic Pre-Press Technology and Color Proofing" on October 18-20, 1989 at the Holiday Inn - Mart Plaza in Chicago, Illinois. The symposium, directly following Graph Expo '89 will consist of more than 75 presentations covering design workstations, scanners, digital and analog proofing, desktop publishing, page make-up, color copying and measurement, and future imaging technologies. This year's theme, "Managing the Imaging Transition" stresses the shift from materials to data, from serial functions to integrated

systems, from craft to manufacturing science and from reproduction to information processing. Mark Suwyn, group vice president, Du Pont Imaging Systems will serve as the keynote speaker. For more information contact SPSE at Tel. (703) 642-9090, or FAX (703) 642-9094.

The 1989 SPSE honors and awards were announced in Boston, Massachusetts at the Marriott Hotel, Copley Place, May 16, 1989 during the Society's 42nd Annual Conference. Honorary membership, the highest award bestowed by the Society, recognizing outstanding contribution to the advancement of photographic science or engineering was awarded to William J. McCune, Jr. (Polaroid Corp.) for his technical innovations in photographic engineering and outstanding leadership in building a major manufacturing organization. In recognition of outstanding achievement in imaging science or engineering, the following members of the society will be elevated to fellow status: Yen T. Tan (Eastman Kodak), Richard S. Fisch (3M Company), Hirozo Ueda (Fuji Photo Film).

Senior member status recognizing long-term outstanding service to the Society on a national level was awarded to Eugene Ostroff (U.S. National Museum of American History Smithsonian Institution), and to Maury Kahn (Konica USA). The Chester F. Carlson Award sponsored by Xerox Corp. recognizing outstanding work in the science or technology of electrophotography was awarded to M. David Shattuck (IBM) and Robert B. Champ (IBM). The President's citation was awarded to Howard C. Daly (Kodak-retired) for his outstanding long term contributions and dedication to the achievement of the society's objectives. The Society's Service Award was given to Larry S. Scarff (Itek Optical systems), Thomas J. Dagon (Kodak), and John W. Leonti (Agfa). The Raymond Davis Scholarship grant which is made for academic study or research in the theory or practice of photographic science was awarded to Ching-wei Chang (R.I.T.) and Michael R. Tinskey (Michigan State University).

THE GEMOLOGICAL INSTITUTE OF AMERICA (GIA)

The GIA has constructed a facility to house a furnace system so that its researchers may heat gemstones under controlled conditions. Many stones submitted for grading have undergone heat treatment. According to director Dr. Jim Shigley, "We needed to treat stones here under known conditions and document their before and after states. When we will be able to compile our own data and induce color changes in previously untreated stones, our GIA Gem Trade Laboratory should be better able to identify heat treated stones and gauge their color stability."

GRAPHIC ARTS TECHNICAL FOUNDATION LATEST GATF MARKET RESEARCH TARGETS COLOR ELECTRONIC PREPRESS Study of New Systems Includes Technology, Major Players, Current and Future Markets, and Standards Issues

Linking PC/Workstations to Color Electronic Prepress Systems: 1989-1994 is a new Techno-Economic Forecast (TEF 34) from the Graphic Arts Technical Foundation (GATF). TEF 34 provides in-depth coverage of the latest color prepress technology, who the major players and new entrants are and their roles, technological advances in areas of PC/Workstation hardware and software, how CEPS have been moving in the direction of data base management, and a forecast of where color prepress technology will be by the mid-1990s.

TEF 34 evaluates major advertising and publication markets and the usage of color electronic prepress technology within each product category. In addition, the report summarizes how new technology impacts these markets.

In its forecast of the 1990s, TEF 34 includes a discussion of major technological trends such as interfacing, the development of modular systems, and the growth of desktop color and its ramifications. The market forecast covers such issues as the changing alliances between printers and trade

houses, as well as new customers and markets that will result from less costly, lower resolution color.

Kennard S. Cloud and K. Richard Littrell were principal investigators for TEF 34. Cloud is president of Cloud Information Services and Littrell is president of Graphics Xpress.

GATF Techno-Economic Forecasts are designed to help printers assess the relative merits of new technologies. Each forecast focuses on a key technological issue facing the graphic arts industries and discusses the interaction of the technology with the marketplace. Since release of the first forecast in 1977, they have proved to be of invaluable assistance to printers and graphic arts manufacturers in making sound business decisions.

A 'Highlights' brochure containing details about *Linking PC/Workstations to Color Electronic Prepress Systems: 1989-1994* is available from GATF. Contact Dr. Margaret B. McKean, manager of GATF's Techno-Economic Forecasting Division, 4615 Forbes Avenue, Pittsburgh, PA 15213; Tel. (414) 621-6941; FAX (412) 621-3049.

SOCIETY OF MOTION PICTURE AND TELEVISION ENGINEERS Report from the Delegation for 1988 dated April 6, 1989

The technical program at the Society's 130th Technical Conference and Equipment Exhibit at the Javits Convention Center in New York City, October 15- 19, 1988, consisted of a record 165 papers. Color was the subject of many presentations on the conference theme, "Innovation in Imaging and Sound":

- A proposed Alternating Current Power Distribution System for Motion Picture and Television Location Lighting
- The Application of Electronic Bal-lasting with Medium Arc Metal Halide Lamps
- HMI Lighting for High-Speed Photographic Applications
- HFC 3000D Digital Video Color Film Analyzer, Continuation of a new Generation
- The Film Facit (TM) 3000H Color Film Analyzer — An Update
- HDTV Production Colorimetry

- High Picture Quality Technologies for an S-VHS Portable VCR

- Digital 4:2:2 Color Correction System

- 2nd Generation : The Development of "Smart" CCD Color Camera

- A High-Definition Television CCD Color Camera

Society awards and honors were presented to several recipients for outstanding technical achievement:

In recognition of an outstanding paper originally published in the Journal of the Society, the Journal Award was presented to Steven J. Powell, John C. Norris, and Stephen W. Spakowsky for their article, "Eastman Color High-Speed Daylight Negative Films 5297 and 7297".

William W. Hargreaves, Filmlab Engineering Pty. Ltd., Sydney, Australia, was the recipient of the Herbert T. Kalmus Gold Medal Award for his work in the design, engineering and construction of motion-picture film processing and ancillary equipment, particularly the magnetic drive processing machine.

For his outstanding contribution to the development of practical color television systems and new television signal processing techniques, Kerns H. Powers was awarded the Progres Medal Award. *Roland J. Zavada*
Editor's note: I apologize for the late inclusion of this report. It somehow was accidentally pigeonholed and came to light again only last week. Sorry, Rollie. Bonnie Swenholt

SOCIETY FOR INFORMATION DISPLAY: CALL FOR PAPERS 1990 International Symposium Seminar Exhibition, Las Vegas, Nevada, USA, May 14-18, 1990

Symposium Topics of Interest: Original papers on (but not limited to): Flat-Panel Displays; CRT Displays; Hard Copy/Printers; Display Systems & Applications (Video Systems, Automotive systems, Interactive systems, Avionic systems); Large-Area Displays; Display measurements; Image acquisition & Processing; Human Factors; Liquid-Crystal Technology; Workstations; Display Manufacturing; Display

Circuitry & Packaging. Papers submitted should not have been previously published or presented.

The deadline for receipt of abstract and technical summary is December 1, 1989. Notification of acceptance will be by 31 Jan 1990. Final version of Manuscript is due 19 March 1990. Send one reproducible copy of the abstract and technical summary to: Lynne Henderson (SID), Palisades Institute for Research Services, Inc., 201 Varick Street, Suite 1140, New York, NY 10014: Tel. (212) 620-3375. FAX (212) 620-3379.

A 35-50 word abstract is required which will be published in the Advance Program if your paper is accepted. The paper title and abstract should be prepared with concise, specific information. Be as quantitative as possible, highlighting new details of the development. To accommodate the program format, abstracts may be edited by the Committee.

Technical Summary: A 3-7 page *maximum* technical summary is required covering the following aspects: 1) Objective and background: Brief description of the goals and intent of your project as well as background factors which led to the new results. 2) Results: A description, in detail, of the specific results that will be presented at the Symposium. 3) Impact: A discussion of how your results advance the state of the art and the significance of your work. Compare your results to previously published work.

4) References: A short list of relevant references covering projects in related areas. 5) Prior publications: Only original papers, not previously published or presented, will be accepted. Please include a statement confirming this. If your organization has—prior to this meeting—published or presented material on similar work, explain how your effort differs.

For further information contact Lynne Henderson (see address above).

NEWS FROM OTHER ORGANIZATIONS

THE COLOUR GROUP (GREAT BRITAIN)

A new award to encourage excellence in the field of color science has been established in memory of C. James Bartleson, who was involved in research and international activities related to color vision. The award, administered by five trustees, will recognize work of international significance, with priority given to persons who are young and who have shown outstanding ability to produce well-written papers. It is expected that the award will be made in alternate years, with about five awards in total. A monetary prize of 1000 pounds and a medal will be presented to Dr. Steven K. Shevell, the first recipient of the award, at the C. James Bartleson Symposium on Colour Appearance to be held at The City University, London on October 4, 1989.

Steven K. Shevell is a native of Los Angeles, California. He studied at Stanford University, gaining an AB with distinction in Psychology in 1973 and also an MS in Engineering and Economic Systems. He went on to the University of Michigan, getting two MA's (Psychology and Statistics) in 1975 and a PhD in Mathematics and Psychology in 1977. He collaborated with V. Smith and J. Pokorny and was recently in England with J. Mollon. His wide range of interests includes colour vision, especially the neural mechanisms underlying chromatic adaptation, for which he has developed ingenious experimental methods and elegant theoretical analyses.

NEUGEBAUER MEMORIAL SEMINAR ON COLOR REPRODUCTION

The Japan Chapter of the International Society for Optical Engineering will sponsor the Neugebauer Memorial Seminar on Color Reproduction in cooperation with numerous other international and national organizations on December 14-15, 1989 in Tokyo, Japan. The late Dr. Hans E. J. Neugebauer published a very basic and important paper on color reproduction

52 years ago utilizing a colorimetric concept. His theory was used recently by people to find a common way to handle digital color information through mixed media systems. This seminar has been organized to remind us of his significant contributions to color reproduction technologies and also to encourage future efforts to modernize technologies based on theoretical studies that are along the lines of his fundamental idea.

Papers will be presented on the following and related topics: applications and modifications of the Neugebauer equations, colorimetric and modern approaches in digital color processing, modern color reproduction systems, papers and inks in color reproduction, simulations of color reproduction and systems, prepress and press linkage, gray component replacement (GRC), and future developments. For information, contact:

Dr. Kazuo Sayanagi,
Program Committee Chairman
c/o O.T.O. Research Corporation
Takeuchi Building
1-34-12 Takatanobaba
Shinjuku-ku, Tokyo 160 Japan
Telephone: 03/208-7821
FAX 03/200-2889
Telex: 2324119 OTORES J

UNIVERSITY OF WISCONSIN

Color as Content, An Exhibition of Color Principles was held at the Main Gallery, Memorial Union, University of Wisconsin, Madison, Wisconsin, July 7 - 30, 1989. Developed by seven art students from the University, this exhibition provided a visual understanding to the chameleon quality of color.

In art there has been a shift from the perceptual to the conceptual. Twentieth Century painting has become more than a surrogate of reality. Impressionism introduced the elements of time and light. Fauvism's arbitrary use of color eliminated local color and paved the way for abstract art. When color became separated from the narrative subject matter, color as support changed to color as content. It became the tectonic element of form. The visual content of the painting resides in the relationship of colors for an empathetic response. The

artists creating this exhibition were Mark Gable, Jaleen Hacklander, Margaret Portillo, Camille Riner, Kate Rohrer, Laura Stack, and Susan Watts.

NATIONAL GALLERY OF ART TAPESTRY SYMPOSIUM IN HONOR OF JOSEPH COLUMBUS

October 10, 1989, Washington, D.C. - The National Gallery of Art is sponsoring a "Tapestry Symposium in Honor of Joseph V. Columbus". Mr. Columbus has dedicated his work to preservation of textiles and textile history and has generously shared his knowledge and enthusiasm with many colleagues and students over the years. Presentations will include recent research by colleagues from North America and Western Europe who are well known in the field of tapestry history and conservation. There will be no registration fee. For more information, contact Mary Ashton, DCL-Textiles, National Gallery of Art, 6th and Constitution, Washington, D.C. 20565; Tel. (202) 842-6451 or (202) 842-6432.

HARPERS FERRY REGIONAL TEXTILE GROUP MAKES THIS CALL FOR PAPERS

"Textiles & Costumes on Parade: Exhibition Successes & Disasters" the 10th Preservation Symposium: To be held at the Smithsonian Institution, National Museum of American History, Washington, D.C. on Thursday and Friday, Nov. 8 and 9, 1990. Suggested topics for this two-day conference include:

Case and Frame Design; Open Display; Temporary, Permanent and Travelling Exhibitions; Gallery and Historic Interiors; Disaster Planning; Ethics; Packing and Shipping; Environmental Controls.

Abstracts will be received for consideration until October 15th, 1989.

Please send abstract (a minimum of one typewritten, double-spaced page) to:

Katherine Dirks, Division of Textiles, Room #4131, National Museum of American History, Washington, D.C. 20560; Tel (202) 357-1889.

CALENDAR

Please send information on Member Body and other organization meetings involving color with dates, places, and information source to:

Harry K. Hammond, III

BYK-Gardner, Inc.

2435 Linden Lane

Silver Spring, MD 20910

(301) 495-7150

FAX (301) 585-4067

1989

CIE INTERIM MEETING, Oct. 2-3

Information: Dr. J. D. Schanda, Central Bureau, A-1030 Vienna, Kegelgasse 27 Austria, or Dr. Jack Hsia, (301) 975-2342.

LUX EUROPA, Oct 3-5

Budapest, Hungary. Information: Gabor Debreczeni, the Lighting Committee of the Hungarian Electrotechnical Association (MEE) H-1372 Budapest, PF. 451, Hungary. Telephone 225-049.

TAPPI OPTICAL PROPERTIES COMMITTEE, Oct. 4

New Orleans Marriott, New Orleans, Louisiana. Information: S. J. Popson, (812) 948-2884.

SYMPOSIUM ON DAYLIGHT AND SOLAR RADIATION MEASUREMENT, OCT. 9-11

Technische Universitat Berlin (West), Germany. Information: Herrn Prof. Dr. H. Kaase, Institut fur Lichttechnik der Technischen Universitat Berlin, Einsteinufer 19, D-1000 Berlin 10 GERMANY. (030) 314 224 01.

OPTICS 89, Oct. 15-20

Optical Society of America Annual Meeting, Orlando, Florida. Information: OSA, 1816 Jefferson Place, N.W., Washington, D.C. 20036, (202) 223-0920.

GRAPH-EXPO and SPSE SYMPOSIUM, OCT. 15-20

Electronic Pre-Press Technology and Color Proofing Symposium, Holiday Inn - Mart Plaza, Chicago, Illinois. Information: Pam Forness, (703) 642-9090.

USNC/CIE ANNUAL MEETING, Oct. 29-31

U. S. National Committee of the CIE, Hyatt San Jose, 1740 N. 1st St., San Jose, California. Information: Jack Hsia, (301) 975-2342.

FSCT, Nov. 8-10

Federation of Societies for Coating Technology 67th Annual Meeting and 54th Paint Industries' Show, The Rivergate, New Orleans, Louisiana. Information: (215) 545-1506.

SPSE 5TH INTERNATIONAL CONGRESS, Nov. 12-17
Advances in Non-Impact Printing Technologies with Exhibit,
Holiday Inn at the Embarcadero, San Diego, California.
Information: Pam Forness, (703) 642-9090.

AATCC NAT'L COMMITTEE MEETING, Nov. 14-16
The Doral Inn, New York, New York, Information: Jerry Tew,
(919) 549-8141.

ISCC WILLIAMSBURG CONFERENCE, Nov. 28-Dec. 1
"Color Discrimination Psychophysics", Colonial Williamsburg,
Virginia. Information: Dr. Roy Berns, (716) 475-2784.

ISO/TC 187 COLOR ORDER SYSTEMS, Dec. 4-6
Baltimore, Maryland. Information: Nick Hale, (301) 472-4850.

SPIE SYMPOSIUM, Dec. 14-15
Neugebauer Memorial Seminar on Color Reproduction, Tokyo,
Japan. Information: Dr. Kazuo Sayanagi 03/208-7821 or in
North America: SPIE (206) 676-3290.

1990

ASTM E-12 ON APPEARANCE, Jan. 21-24
Embassy Suites Hotel, Ft. Lauderdale South, Florida. Informa-
tion: Sharon Kauffman, (215) 299-5599.

ASTM COMMITTEE D-1 ON PAINT, Jan 21-25
Embassy Suites Hotel, Ft. Lauderdale South, Florida. Informa-
tion: David Bradley, (215) 299-5504.

SPSE 6TH INTERNATIONAL SYMPOSIUM, Feb. 19-21
Photofinishing Technology and Marketing, Las Vegas, Nevada.
Information: Pam Forness, (703) 642-9090.

INTERNATIONAL SYMPOSIUM AND EXPOSITION,
Feb. 25- Mar. 2
SPSE & SPIE Symposium on Electronic Imaging Devices and
Systems '89, Santa Clara Convention Center, Santa Clara,
California. Information: Pam Forness, (703) 642-9090.

ISCC ANNUAL MEETING/ SCAI CONFERENCE,
Apr. 22-26
Airport Marriot, Cleveland, Ohio. Information: James Grady
(313) 855-2353, Jaqui Welker (216) 671-0050 ext. 2404,
Romesh Kumar, (401) 823-2161.

COLOR MARKETING GROUP SPRING MEETING,
Apr. 29- May 1
Royal York Hotel, Toronto, Ontario, Canada. Information:
Nancy Burns, (703) 528-7666.

CORM 90, May 8-10
Rochester Institute of Technology Rochester, New York.
Information: Dr. Roy Berns, Munsell Color Science Lab., RIT,
P.O. Box 9887, Rochester, New York. (716) 475-2230.

SID 90, May 14-18
The Society for Information Display International Symposium,
Seminar, and Exhibition, will be held at Baily's Grand Hotel,
Las Vegas, Nevada. Information: Howard L. Funk,
(914) 765-7384.

FSCT SPRING WEEK, May 16-19
Federation of Societies for Coatings Technology Spring Week,
Galt House, Louisville, KY. Seminar on 16th & 17th. Society
Officers Meeting on 18th. Board of Directors Meeting on 19th.

SPSE 43RD ANNUAL CONFERENCE, May 20-25
Rochester Institute of Technology Center for Imaging Science,
with housing at the Holiday Inn-Rochester South, Rochester,
New York. Information: Pat Forness, (703) 642-9090.

ASTM COMMITTEE D-1 ON PAINT, Jun. 17-20
San Francisco, California. Information: David Bradley,
(215) 299-5504.

AIC INTERIM MEETING, COLOR MEASUREMENT,
Sep. 3-5
Color Instrumentation, Federal Institute for Materials Science
and Testing (BAM), Berlin, Federal Republic of Germany.
Information: Prof. Dr. Heinz Terstiege, BAM, Unter den
Eichen 87, D-1000 Berlin 45, FRG.

COLOR MARKETING GROUP FALL MEETING,
Sep. 23-25
Hyatt Regency San Antonio, San Antonio, Texas. Information:
Nancy Burns, (703) 528-7666.

SPSE 6TH INTERNATIONAL CONGRESS, Oct. 21-26
Advances in Non-Impact Printing Technologies with Exhibit,
Orlando, Florida. Information: Pam Forness, (703) 642-9090.

OSA ANNUAL MEETING '90, Nov. 4-9
Boston, Massachusetts. Information: Optical Society of
America, 1816 Jefferson Place, N.W., Washington, D.C.
20036. (202) 223-0920.

1991

AIC INTERIM SYMPOSIUM, COLOUR & LIGHT,
Jun. 26-28
Sidney Australia. Information: The Colour Society of Australia,
P.O. Box 63, Concord West, N.S.W. 2138, Australia.

CIE 22ND SESSION, Jul. 1-12
International Commission On Illumination, Melbourne,
Australia. Information: Dr. J. D. Schanda, Central Bureau,
A-1030 Vienna, Kegelgasse 27 Austria, or Dr. Jack Hsia,
(301) 975-2342.

NEWSLETTER EDITOR:

Mrs. Bonnie K. Swenholt

Send material for publication to the editor at:

5717 Gulick Rd.
Honeoye, NY 14471

Or send to Dr. Ellen Carter at:

2509 N. Utah St.
Arlington, VA 22207

If possible, 5 1/4 inch diskette for MSDOS (ASCII text file) would be appreciated, or send via MODEM:
Tel. (716) 229-5925

OFFICERS 1988-1990

President

Mrs. Joy Turner Luke:
Studio 231, Box 18, Route 1
Sperryville, VA 22740
(703)987-8386

President-Elect

Mr. Hugh S. Fairman:
John L. Armitage & Co.
P.O. Box 215
Andover, NJ 07821
Bus. Tel. (201)786-6502

Secretary

Miss Therese R. Commerford:
U.S. Army Natick R.D. & E.
Center
Attn: STRNC-ITC, Natick, MA
01760-5019
Bus. Tel. (508)651-5469

Treasurer

Mr. Philip Hunter:
Hunterlab
11491 Sunset Hills Road
Reston, VA 22090
Bus. Tel. (703)471-6870
Fax (703)471-4237

Past-President

Dr. Allan B. Rodrigues:
E. I. DuPont de Nemours & Co.
Troy Laboratory
945 Stephenson Highway
P.O. Box 2802
Troy, MI 48007-2802
Bus. Tel. (313)583-8245
Fax (313)583-8298

LIST OF DIRECTORS

1987-1990

Dr. Roy Berns
Munsell Color Science
Laboratory, RIT
P.O.Box 9887
Rochester, NY
14623-0887
Bus. (716)475-2230

Mr. James Grady
CIBA-Geigy Corp.
7187 White Pine Dr.
Birmingham, MI
48010
Tel.(313)585-7200

Ms. Jacqui Welker
PPG Industries, Inc.
3800 W. 143rd. St.
Cleveland, OH 44111
Tel. (216)671-0050

1988-1991

Prof. Hilton Brown
Art Conservation Prog.
303 Old College
University of Delaware
Newark, DE 19716
Tel. (302)451-2479

Mr. James A. Cave
BASF Corp.
Inmont Div.
26701 Telegraph Rd.
Southfield, MI
48034
Tel. (313)827-4670
Fax (313)827-2727

Mr. W. Nick Hale
Hale Color
Consultants, Inc.
1505 Phoenix Road
Phoenix, MD 21131
Tel. (301)472-4850

1989-1992

Dr. Norman Burningham
357 True Hickory Dr.
Rochester, NY 14615
Bus. Tel. (716)477-7466

Mr. Richard W. Harold
Hunter Assoc. Lab, Inc.
11491 Sunset Hills Rd.
Reston, VA 22090
Bus. Tel. (703)471-6870

Mrs. Evelyn Stephens
Fashion Institute of Tech.
227 W. 27th St.
New York, NY 10001
Bus. Tel. (212)760-7871

ISCC MEMBER-BODIES

American Association of Textile Chemists and Colorists (AATCC)
American Chemical Society (ACS)
American College of Prosthodontists (ACP)
American Psychological Association (APA)
American Society for Testing and Materials (ASTM)
American Society of Interior Designers (ASID)
American Society for Photogrammetry and Remote Sensing (ASPRS)
The Color Association of the United States, Inc. (CAUS)
Color Marketing Group (CMG)
Detroit Colour Council (DCC)
Dry Color Manufacturers Association (DCMA)
Federation of Societies for Coatings Technology (FSCT)

Gemological Institute of America (GIA)
Graphic Arts Technical Foundation (GATF)
Illuminating Engineering Society (IES)
National Artists Equity Association (NAEA)
National Association of Printing Ink Manufacturers (NAPIM)
National Paint and Coatings Association, Inc.(NPCA)
Optical Society of America (OSA)
Society for Information Display (SID)
Society of Motion Picture and Television Engineers (SMPTE)
Society for Imaging Science and Technology (SPSE)
Technical Association of the Graphic Arts (TAGA)
Technical Association of the Pulp and Paper Industry (TAPPI)

SUSTAINING MEMBERS

Pantone Color Institute