

Inter-Society Color Council *News*

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NOMINATIONS FOR BOARD OF DIRECTORS FOR 1995-1998

The following individuals have been nominated to be selected to the Inter-Society Color Council's Board of Directors for a three year term to last from the Annual Meeting of 1995 to the Annual Meeting of 1998. The following biographies have been prepared to assist the voting delegates in making their final choices., and are listed alphabetically.

Cynthia A. Brewer

Cindy is currently an Assistant Professor of Geography at Penn State University where she teaches digital cartography, map design, and multimedia. Previously, she was a faculty member at San Diego State University for three years. She received both her Ph.D. and M.A. degrees in Geography from Michigan State University, and her B.A. in Fine Arts is from the University of Guelph (Canada).

The transition from fine arts to geography may seem odd, but her emphasis in both graduate degrees and in her current research has been color theory applications in cartography. The appropriate use of color as a symbol on maps (particularly thematic maps for visualizing statistical distributions) has an important influence on how well map users understand geographic distributions and their inter-relationships.

Previous research has included: developing Munsell-based process-printed color charts to aid cartographers in selecting perceptually organized color schemes for maps; testing the use of confusion lines on the CIE x,y chromaticity diagram for selecting map schemes that are interpreted accurately by people with color vision deficiencies; and visualizing terrain using relief shading and simultaneously using hue and saturation to map slope direction and steepness. Her work has been published in cartography journals (Cartographica, Cartographic Perspectives, The American Cartographer) and she has been presenting her research at academic conferences on geography, cartography, and geographic information systems since 1985. Cindy has been a member of ISCC since 1985.

At ISCC annual meetings, she was an invited speaker

on a panel on color education (1989, Chicago) and presented her dissertation work on modeling simultaneous contrast effects on CRT maps (1992, Princeton). She presented general guidelines for selecting map colors at the 1994 IS&T/SPIE conference (San Jose). These guidelines are published as a chapter in the book *Visualization in Modern Cartography*.

Mark D. Fairchild

Mark currently holds a tenured faculty position at Rochester Institute of Technology (RIT) in the Center for Imaging Science, which houses the Munsell Color Science Laboratory. Mark originally came to RIT as a freshman in the Photographic Science program. In 1986 he earned his B.S. and M.S. degrees in the Imaging Science program of RIT. When the Munsell Color Science Laboratory was first formed, Mark was a research assistant to Dr. Franc Grum.

While continuing his work at RIT, he undertook a Ph.D. program in Vision Science at the University of Rochester, which he completed in 1990.

Mark has been actively involved in research in the areas of colorimetric measurement, standardization, color perception, color vision, color-appearance modeling and digital color reproduction. He has authored over 70 papers, presentations, and technical reports in those areas. Among this work was the development of RLAB, a color-appearance space useful for cross-media color reproduction.

In addition to being an ISCC member, Mark is a member of the Council for Optical Radiation Measurements (CORM), the Optical Society of America (OSA), the United States National Committee of the CIE (USNC/CIE), and the Electronic Imaging International Working Group of IS&T and SPIE. Mark is a member

of CIE Technical Committee 1-27, Specification of Colour Appearance for Reflective Media and Self-Luminous Display Image Comparisons and chair of CIE Technical Committee 1-34, Testing Colour-Apearance Models. Mark is an OSA delegate to ISCC and chair of ISCC Interest Group I, Basic and Applied Color Research. In February, Mark will receive the 1995 C. James Bartleson Award presented by the Colour Group of Great Britain for his research work in color science.

Nancy Kwallek

Nancy Kwallek is an associate professor and head of the Interior Design program at The University of Texas at Austin where she teaches Interior Design courses and conducts color research.

Nancy holds a B.S. degree from Kent State University, and M.S. degree from Oregon State University, and a Ph.D. degree in Environmental Design from Purdue University. She has taught at Oregon State University, established Interior Design programs, and taught at San Diego University and Indiana University before joining the University of Texas at Austin faculty in 1983.

The effects of color on individuals in the interior environment has been her research focus for the last several years. She has written several published reports and articles on the effects of color in the work environment. Nancy recently completed a two year study involving 90 office workers performing clerical tasks over a work week to determine how mood and worker performance are affected by office interior colors. The grant was sponsored by the Institute of Business Designers Foundation (IBDP) with funding from BASF and Interface Flooring Systems, Inc. Until this study, long-term controlled experiments investigating effects of color on worker productivity have not been reported.

Nancy has presented her research

on four continents to various scholarly and professional meetings and design organizations such as ISCC, AIC, the Color Marketing Group, The Institute of Business Designers, The American Society of Interior Designers, and at numerous international design fairs/markets.

Ron Oldchurch

Ron Oldchurch has been interested in color since childhood. His mother was an art teacher, which helped spark his interest in color.

Ron received his B.S. from San Diego State University in Personnel and Industrial Relations. Ron has been formally pursuing color issues for fourteen years. During that time he has had extensive contact with Fred Billmeyer, Hugh Fairman, Mike Brill, Bill Thornton and others.

Ron has many interests with regard to color. These include a device for fine control and continuous change of the spectral power distribution of a light source; improving the efficient transmission of spectral data using Cohen's Matrix R and metameric blacks; brightness issues advanced in Thornton's recent colorimetry work. As founder of Symmetry Research, he is investigating the use of mathematical physics metaphors to describe color appearance phenomena. This includes a description of color contrast and induction effects in the visual plane using the concept of electrostatic fields. He is also seeking to identify and develop the mathematics used by the visual system to impart color sensation, and is investigating its potential impact on color technology. Ron plans on publishing his ideas in a color journal. He also owns and manages real estate in Southern California.

Ron has been an active ISCC member for five years and has been chair of the ISCC Poster Paper and Contributed Paper Committees since 1992.

Wade S. Thompson

Wade S. Thompson is Professor of Art and Design at Southwest Missouri State University, Springfield, where he has been a faculty member since 1979. He was an Assistant Professor of Art at Temple University, Philadelphia between 1972 and 1979.

He received the M.A. and M.F.A. degrees from the School of Art at Bowling Green University, Ohio in 1972 and the B.A. degrees from Macalester College in St. Paul, Minnesota in 1968. In 1985 he did a post-graduate project in Color and Painting at the School of Art and Design at the Pratt Institute in New York and in 1990 studied the Environmental Art Program at the National College of Art and Design in Stockholm under a study visit arranged by the Swedish Institute.

In 1992, he was awarded Distinguished Scholar status by Southwest Missouri State University, the highest honor awarded a faculty member and the Excellence in Research Award in 1988. Wade was awarded the Accomplished Graduate of the Fine Arts Award by the Bowling Green University Alumni Association in 1992 and is a biographee in *Who's Who in American Art*. He has exhibited his paintings in over 100 one-person, group invitational and competitive exhibitions nationally since 1972 and is included in numerous public and private collections.

Wade served as Co-Chair of the ISCC Art Design and Psychology Interest Group III from 1987 to 1992, Vice-Chair until 1994, and is presently Chair. Most recently, he presented a paper at the 1994 International Conference on Colour Education at the University of Art and Design in Helsinki which will be published in the Conference Proceedings in early 1995.

RODRIGUES SELECTED TO RECEIVE NICKERSON SERVICE AWARD

It is with great pleasure that the Inter Society Color Council announces the selection of Dr. Allan B. J. Rodrigues to receive the Nickerson Service Award. The award will be presented during the annual meeting award luncheon on Monday April 24, 1995 at the Koury Convention Center of the Holiday Inn Four seasons in Greensboro, North Carolina.

The ISCC Nickerson Service Award was established in 1980 to recognize outstanding long-term contributions toward the advancement of the Council and its aims and purposes. The contributions may be in the form of organizational, clerical, technical, or other services that benefit the Council and its members. The award is named to honor the late Dorothy M. Nickerson, a founding member of the Council, its Secretary from 1938 to 1950, and its President from 1954 to 1956.

Dr. Rodrigues, a Senior Research Associate for the E. I. Du Pont de Nemours & Co. in Troy, Michigan, becomes the tenth recipient of the Nickerson Service Award. He has served on the Council's Board of Directors and was ISCC President from 1986 through 1988. Rodrigues chaired two annual meetings, was program chairman for a third, and co-chaired a Problem Committee on Indices of Metamerism. Rodrigues represented the ISCC on the Executive Committee of the Association Internationale de la Couleur (AIC) from 1989 through 1993.

Rodrigues is a member of the

American Society for Testing and Materials (ASTM), the Detroit Colour Council, and the Federation of Societies for Coatings Technology. It is with great pride that the ISCC honors Dr. Allan B. J. Rodrigues as the tenth recipient of the Nickerson Service Award.

*Dr. Robert Marcus
ISCC Publicity Chairman*



FIRST ISCC PAN-CHROMATIC CONFERENCE

**Williamsburg, Virginia
February 12-15 1995**

The Inter-Society Color Council (ISCC) is sponsoring the First Pan-Chromatic Conference, to provide a forum for people in all areas of color science to come together, to exchange news and ideas about color measurement and use, and to form a Color Community that transcends the traditional boundaries of each area.

Presentations will cover all areas of color science, with four areas specially featured. For each of the featured areas, there will be a tutorial overview talk to introduce the issues of that area to researchers and practitioners in other branches of color science, as well as selected technical presentations in the area. There will be an interdisciplinary session, and also a panel session to allow focused discussion of the issues.

In addition, the James Bartleson Award will be presented, in conjunction with an on-site banquet February 14, to Dr. Mark D. Fairchild of RIT.

(Continued→)

EDITOR'S NOTE

I would like to take a moment to thank those of you that continue to contribute to your ISCC News. Without your help, this newsletter would not exist. Most of all, I must personally thank Mr. Harry Hammond. Although retired, Harry continues to give his unending input irrespective of his other commitments and obligations.

Thank you Harry!

Over the past several months we've tried to implement electronic transfer of data. It appears to be working. Over 50% of this issue was submitted on disk or via the E-mail. I can't tell you how much this means to the newsletter (not to mention me!). Because we begin to eliminate manual entry procedure, we also begin to eliminate the manual entry errors!

Please, one and all, let the other readers know what you know - send us your articles and noteworthy news - and if you can, do it electronically.

We welcome your thoughts and criticism.

Ed.

Attending this conference will greatly help color researchers who want to be on the leading edge of the emerging interdisciplinary cooperation that will characterize the economic climate of the '90s. This first Pan-Chromatic Conference will begin a series of such conferences that, in the future, will highlight other areas of color science and technology.

The conference organizers are Michael H. Brill (David Sarnoff Research Center) and Steven A. Shafer (Carnegie Mellon University). The sessions featured this year will be:

Color Vision: Joel Pokorny (U. Chicago), Organizer

Tutorial: Peter Lennie (U. Rochester), "Mechanisms of Color Vision"

Papers: R. Munger, A. Robertson, G. Fielder (National Res. Council,

Canada),

"Hue- Dependence of Hue Discrimination in CIELAB Space"; H. Fairman (Metacolor Assocs.), "Calculating Rod Participation in Object-Color Matching"; A. Shapiro, J. Pokorny, V. Smith (U. Chicago), "Defining Rod-Photoreceptor Space"; K. Mullen, M. Losada (McGill Univ., Canada), "Band Pass Spatial Processing for Color Vision Revealed by Noise Masking"; J. Barbur, A. Harlow, G. Plant (UK), "Insights into the Different Exploits of Color in the Visual Cortex."

Colorimetry: Michael Brill (David Sarnoff Research Center), Organizer
Tutorial: Danny Rich (Datacolor Int'l), "Color and Light: More than Meets the Eye"

Papers: H. Hemmendinger (Hemmendinger Color Lab), "Advances in the Industrial Applications of Colorimetry: Is the Computer the Enemy?"; M. Veve

(HunterLab), "The Effect of Measurement Errors on Color Formulation Accuracy"; R. Alfvén, M. Fairchild (Munsell Color Science Lab), "Observer Metamerism: Precision of Color Matches and Accuracy of Color Matching Functions"; R. Henry (Univ. S. Cal.), "Colorimetry in the Natural Atmosphere."

Color Machine Vision: Steven Shafer (Carnegie Mellon Univ.), Organizer

Tutorial: Steven Shafer (Carnegie Mellon Univ.), "Color in Machine Perception"

Papers: B. Funt, G. Finlayson (Simon-Fraser Univ., Canada), "Computational Uses for Color"; A. Petrov (Kurchatov Institute, Russia), "Resolving the Color Image Irradiance Equation"; M. Swain, V. Zanko (U. Chicago), "Finding Color Textures in Image Databases"; G. Healey, L. Wang (U. Cal. Irvine), "Illumination-Invariant Recognition of Color Textures"; C. Wong (NASA), "A Real-Time View Invariant Color Recognition Technique."

Color Computer Graphics: Gary Meyer (Univ. of Oregon), Organizer

Tutorial: Gary Meyer (Univ. of Oregon), "Color Synthesis in Computer Graphics"

Papers: M. Stone (Xerox PARC), "Color Applications of Magic Lenses"; J. Jiang, E. Murphy, W. Truszkowski (CTA, Inc.), "A New Tool for Rule-Based Evaluation of Color in Graphical User Interfaces"; R. Geist, S. Junkins (Clemson Univ.), "Color Representation in Virtual Environments"; M. Peercy, D. Baum, B. Zhu (Silicon Graphics, Inc.), "Linear Color Representations for Efficient Image Synthesis."

Interdisciplinary Session: Michael Brill (David Sarnoff Research Center), Organizer

Papers: S. Tominaga (Electro-Tech. Univ., Osaka, Japan), "Surface Reflection Estimation by the Dichromatic Model"; G. Finlayson, B. Funt (Simon Fraser Univ, Canada),

"Optimal Spectral Sharpening"; A. Gove, A. Waxman (MIT Lincoln Lab.), "Color Vision and Multi-Spectral IR"; N. Liu and H. Yan (U. Sydney, Australia), "Segmentation of Color Drawing and Map Images"; J. Richardson, I. Davies (U. Surrey, UK), "Perceptual Learning of Categorical Color Constancy."

Williamsburg, the traditional site for February ISCC conferences, is the location of Colonial Williamsburg, a reconstructed town from the Colonial era. The conference will be held at the Williamsburg Lodge, with special conference rates for rooms (\$70-80 a night).

To obtain the special conference room rate, make reservations directly with the hotel at 1-800-447-8679 ext. 5200 before January 13, 1995. The conference registration fee is \$275 if received before this date at the following address:

Inter-Society Color Council
11491 Sunset Hills Rd.
Suite 301
Reston, VA 22090
Phone/Fax: 703-318-0514

Information and registration materials can also be obtained from the conference organizers:

Dr. Michael H. Brill (tel. 609-734-3037; internet: michael_brill@maca.sarnoff.com)

Dr. Steven A. Shafer (tel. 412-268-2527; internet: sas@cs.cmu.edu)



1995 EUROPEAN CONFERENCE ON VISUAL PERCEPTION ANNOUNCEMENT AND CALL FOR PAPERS

The 1995 European Conference on Visual Perception will be held in Tuebingen, Germany, from the evening of Monday August 21st to Friday August 25th.

Dear Vision Scientists,

We plan to have a welcome reception at a beer garden overlooking the River Neckar on the evening of the 21 August, followed by 4 days of lectures. The provisional programme contains 2 Mini-Symposia, one on 'Clinical Psychophysics and Neuropsychology' and the other on 'Perceptual Learning, Plasticity, and Rehabilitation'. The social programme includes a reception at the Town Hall and a conference dinner at a medieval monastery. For those staying until Saturday 27th we will arrange a bus trip to Lake Constance and Lichtenstein castle.

The early registration fee will be DM 150.- (approx. US \$100.-) and, for students DM 100.-, until 30 April; DM 200.- (DM 150.- for students) thereafter. Students please enclose a letter from your research advisor certifying student status. Deadlines:

Submission of abstracts	15th February
Early registration ends	30th April
Notice of acceptance	31st March

Address for correspondence:

ECVP '95 c/o Prof. M. Fahle
Sektion Visuelle Sensorik,
Roentgenweg 11
D 72076 Tuebingen
Fax: +49 7071-551326
E-mail: ECVP@mpik-tueb.mpg.de

It is easy to reach Tuebingen by car, train, or plane (Stuttgart airport is located about 20 miles from Tuebingen). We have reserved accommodation in hotels and a youth hostel in the center of Tuebingen, a picturesque medieval town situated on the river Neckar. The conference will be held at the University lecture hall (Kupferbau-copper building) in the center of town, within walking distance of many of the hotels we have reserved. Room rates are between approximately DM 60.- and DM 150.- per person and night for hotels (single rooms or double rooms), and around DM 25.- per night in the youth hostel (4 persons or 6 persons per room). There is also a camping ground in Tuebingen: DM 8.- per night. The conference will occupy all available hotel rooms in central Tuebingen, so please BOOK EARLY, especially for the youth hostel.

**IPS HOSTS:
INNOVATIONS IN
COLOR SCIENCE
AN INTERNATIONAL
SYMPOSIUM**

**FEBRUARY 22, 23, 24, 1995
ST. PETERSBURG, FLORIDA
SYMPOSIUM**

THE INTERNATIONAL PIGMENT SOCIETY will host the 1995 Symposium, to be held on February 22, 23, and 24 in St. Petersburg, Florida at the Stouffer Renaissance Vinoy Hotel. The theme will be Innovation in Color Science

(Continued→)

and Pigment Technology.

The key feature of the conference will be an interchange of color and pigment technology. Topics will cover a broad range of subjects, from pearlescent and fluorescent colorants, highlighted by color measurement and the latest in new pigment research. Speakers are world leaders in their specific scientific disciplines.

The objective of the Symposium is to provide a platform to impart knowledge and new technology to facilitate education to the members of the color industries.

EXHIBITS

An exhibit area will be featured for the duration of the Symposium. The exhibits will consist of color measurement equipment, innovative testing equipment, and various displays of effect pigments. The color measurement equipment and testing equipment will be the latest software and hardware in the field. The effect pigments being exhibited will correlate with the application data being presented. Conference participants are invited to bring color samples for measurement.

The exhibit area will feature booths and tabletop display space. Exhibit space is limited at this time. For more information regarding exhibit space, please call (813) 822-8458, fax requests to (813) 896-9261 or write to I.P.S., Inc., P.O. Box 1967, St. Petersburg, FL 37731.

HOSPITALITY SUITES

Hospitality Suites may be reserved directly with the Stouffer Renaissance Vinoy Resort. For more information and reservations, call (813) 894-1000. Be sure to mention I.P.S.

SYMPOSIUM SCHEDULE

Wednesday, February 22, 1995

5:00-7:30 p.m. Registration

6:00-7:30 p.m. Wine & Cheese Reception

7:30 p.m. Hospitality Suites Open

Thursday, February 23, 1995

7:45-11:45 a.m. Registration

7:45-8:45 a.m. Breakfast

9:00-9:30 a.m. The Magic of Solsphere
Alan Cowley/Zeneca

9:30-10:00 a.m. Effect Pigments in Automotive
Jon Hall/BASF

10:00-10:30 a.m. Practical Color Measurement
Roland Connelly/Shelyn, Inc.

10:30-10:45 a.m. Refreshment Break

10:45-11:15 a.m. Fluorescent Color Measurement
Steve Streitel/Dayglo Color Corp.

11:15-12:45 a.m. Color Concentrates for Nylon Fibers
Larry Campbell/Americhem, Inc.

12:00-1:15 p.m. Lunch

1:30-2:00 p.m. Practical Computerized Correction
of Pearlescent Colors
Rick Johnston/PMS Consolidated

2:00-2:30 p.m. Innovations in Organic Pigments
Rich Skudera/Toyo Ink America

2:30-3:00 p.m. Artifact Standards for the Paint
and Pigment Industry
Dr. Art Springsteen/Labsphere, Inc.

3:00-3:15 p.m. Refreshment Break

3:15-3:45 p.m. Color Matching in
Translucent Plastic
David Mowery/MacBeth

3:45-4:15 p.m. Total Systems Approach to Color
Brian West/Techmer PM

4:15-4:45 p.m. Pearlescent Effects in Automotive
Gregg Schridder/X-Rite, Inc.

5:00 p.m. Hospitality Suites Open

5:30-7:00 p.m. Wine & Cheese Reception

Friday, February 24, 1995

7:45-8:45 a.m. Breakfast

9:00-9:30 a.m. Color Formulation for Today's Customer
Ruth Meyers/Color Perceptions

9:30-10:00 a.m. Innovations in Pearlescent Colors
Eli Aschner/Em Industries

10:00-10:30 a.m. Portable Color Control
Scott Reininger/X-Rite, Inc.

10:30-10:45 a.m. Refreshment Break

10:45-11:15 a.m. New Concepts in Organic Pigments
Chris McCormick/Ciba Geigy

11:15-11:45 a.m. Appearance Analysis and
Quality Improvement
Richard Harold/Hunter Assoc. Labs

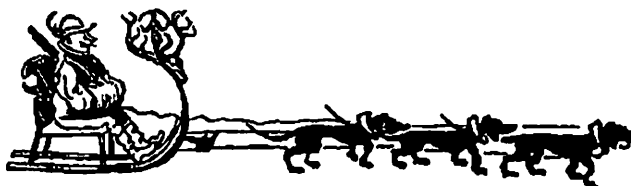
12:00-1:15 p.m. Lunch

1:30-2:00 p.m. The Mystery of Color
Ralph Stanzola/Industrial Color

2:00-2:30 p.m. CMC Color Differences
Ron Penrod/PolyPlastic

2:30-3:00 p.m. Application of Color Data
John Mueller/Data Color International

3:00-3:30 p.m. Spectrophotometric Hardware
Michael Beering/MacBeth,



1995 ANNUAL MEETING, APRIL 22-25, 1995 INTEREST GROUP I BASIC AND APPLIED COLOR RESEARCH

Tutorial Session at the 1995 ISCC Annual Meeting In Greensboro

ISCC Interest Group I, Basic and Applied Color Research, will hold a session at the 1995 ISCC Annual Meeting in Greensboro consisting of tutorials on topics of interest to color researchers. This session grew out of suggestions from Interest Group I participants at last year's annual meeting. The 1995 session will consist of two tutorials, each lasting about 1 hour and 15 minutes.

The first tutorial will be on "CRT Colorimetry" presented by Roy Berns. Roy is the Richard S. Hunter Professor of Color Science, Appearance, and Technology in the Munsell Color Science Laboratory at the Rochester Institute of Technology. This tutorial should be of interest to anyone using a computer-controlled CRT-monitor to present colored stimuli for research or simulations such as those often used with color matching systems to illustrate the metameric qualities of a predicted match.

Many advances in the understanding of color vision and color perception are difficult to interpret because various researchers choose to represent their results in a variety of color spaces. Typically vision scientists express their results in spaces that relate closely to the physiology of the visual system while colorimetrists usually prefer CIE

spaces. The second tutorial, "The Design and Use of a Cone Excitation Space," will describe the relationships between these two general types of color spaces. This tutorial will be presented by Vivianne Smith. Vivianne is a Professor of Ophthalmology and Visual Sciences, and Psychology in the Visual Sciences Center at the University of Chicago.

Both of the tutorials will be extremely interesting and informative. I look forward to seeing you in Greensboro and hope you will

all be able to attend the Interest Group I session.

After the 1995 meeting, I will complete my term as Chair of Interest Group I. The current Co-Chair, Joanne Zwinkels, will assume the role of Chair. This leaves an opening for anyone who is interested in becoming Co-Chair of this interest group. I would like to encourage anyone who might be interested to contact me, Joanne, or any member of the ISCC Board of Directors.

*-Mark Fairchild
Chair IG I*

1995 ANNUAL MEETING, APRIL 22-25, 1995 INTEREST GROUP II, INDUSTRIAL APPLICATION OF COLOR

Paper & Discussion Session

PROBLEMS, SOLUTIONS, AND OPPORTUNITIES IN THE TEXTILE INDUSTRY FOR COLOR MEASUREMENT

The textile industry is in many respects unlike any other relative to color measurement and formulation. Particularly in the areas of sample preparation, presentation, and instrumental measurement technique, careful attention to detail can mean the difference between success and failure of any color system.

The application of color measurement in the textile industry goes far beyond a mere starting formulation, batch correction, and final QC check. Sorting, tapering, and dye bath solution measurement

all require different approaches to color measurement unlike those in other industries.

With the 1995 ISCC meeting being co-sponsored by AATCC, this year's session will center around the unique problems and solutions in the textile industry.

The session will consist of both contributed and invited papers.

Interested parties should submit a title and abstract by February 1, 1995. The papers should be approximately 25 minutes in length..

Richard W. Riffel, Chair IGII

ColorTec Associates
P.O.Box 386
Lebanon, NJ 08833

ERGONOMICS IN DESIGN WELCOMES YOUR SUBMISSION

Ergonomics in Design provides information on application of human factors/ergonomics and informs readers about the potential contributions that human factors professionals can make to the design of any system, tool, environment, or product with which people interact.

(Continued→)

Articles describing the application of human factors/ergonomics principles are welcome. We are particularly interested in how the application and /or process by which it was implemented may benefit readers, whether they are working or merely interested in the field. Articles should be written in a less formal style than that used for a journal but suitable for professionals of varied educational and professional backgrounds.

Feature articles should be 1500-23000 words in length; short pieces are also acceptable and should not exceed 1500 words. All text

(including references) should be typed double-space on one side of each page. Illustrative materials (photos, illustrations, tables, graphs) are encouraged. Send four copies to:

Daryle Jean Gardner-Bonneau, EID
Editor Human Factors and Ergonomics Society P.O. Box 1369, Santa Monica, CA 90406-1369

All submissions are acknowledged on receipt. Please allow 12 weeks for technical review. Sample issue and detailed manuscript guidelines are available from the address above (FAX 310-394-1811)

gloss measurement and standards, have been invited to describe measurement techniques and international gloss standards. It is expected that representatives from ISO and BSI will participate and describe current activities in gloss specification.

It is proposed to hold a table top exhibition of instruments associated with measuring gloss, its attributes, and associated artifacts and techniques.

This meeting is jointly organized by the National Physical Laboratory, Spectrophotometry and Colorimetry Club and the Oil and Colour Chemists' Association.

Contact:

Conference Secretary - Yvonne Waterman, OCCA, Priory House, 967 Harrow Road, Wembley, Middx., HA0 2SF,
Telephone 081 908 1086
Fax 081 908 1219

NEWS ABOUT MEMBERS

Mark Fairchild to Receive Bartleson Award

The fourth Bartleson Award will be presented to Dr. Mark D. Fairchild during the ISCC Panchromatic Conference. The Panchromatic

Conference will be held at Williamsburg, Virginia from the 12th of February to the 15th of February. The presentation will be made at 5:30 PM on 14 February after which he will present his Bartleson Lecture. A banquet will follow at 6:30 PM.

The C. James Bartleson Award is established to recognize significant work in colour science and to encourage excellence in this field. Recipients of the award are selected by the Trustees, and priority is given to persons who are young, and who have shown outstanding ability to produce well-written papers. The award consists of a monetary prize of one thousand pounds sterling and a medal. Mrs. C. J. Bartleson provided the funds to establish the award trust in memory of her husband.

Dr. Fairchild obtained a B.S. and M.S. in Imaging Science at the Rochester Institute of Technology in 1986 and a Ph.D. in Visual Science at the University of Rochester in 1990. He is an Associate Professor in the Chester F. Carlson Center for Imaging Science at the Rochester Institute of Technology, and works in the Munsell Color Science Laboratory. He has carried out research on goniospectrophotometry, illuminant metamerism, colour-matching functions of normal observers, accuracy in spectrophotometry, models of color vision for predicting color appearance, the effects of adaptation when viewing television and reflection images, and tolerances for pictorial color reproduction.

Ellen C. Carter

Color Research and Application



NPL AND COLORIMETRY CLUB AND OCCA ANNOUNCEMENT FOR MEETING AND TABLE TOP CONFERENCE

Gloss: Standards, Application and Measurement

The glossy appearance of surfaces is important to many products spanning a wide range of industries - from paper, plastic and glass, to cosmetics, furniture and cars.

Developments in the UK, and worldwide, of gloss measurement and standards will be presented at a meeting at the National Physical Laboratory on 14 February 1995. In addition, the attributes and applications of gloss relevant to the user, such as the gloss of curved surfaces and semi-gloss, will be discussed.

Dr. Wolf Czepluch from BAM in Germany and Dr. Joanne Zwinkles from NRC in Canada, internationally recognised leaders in the field of

NEWS FROM MEMBER BODIES

AATCC RA36 ACTIVITY



The RA36 Color Measurement Committee of the AATCC met May 12, 1994 in

Baltimore at the Marriot Inner Harbor. The agenda covered many topics. The committee deferred the precision and bias statements for the use of Gray Scales to Committee RA102 on Statistics Advisory. Letter ballots approved Evaluation Procedure 3, 5-Step Chromatic Transference Scale; and Evaluation Procedure 4, Standard Depth Scales for Depth Determination. Excellent review of the letter ballot results for the proposed new Evaluation Procedure 6, Instrumental Color Measurement.

Approved the TCR letter ballot to withdraw Method 148, Light Blocking Effect of Curtain Materials. The TCR letter ballot for reaffirmation of Method 110, Whiteness of Textiles was approved. Technical papers for the new edition of Color Technology in the Textile Industry are due by November 1994.

The script for the current Gray Scale video was transcribed and will require extensive editing before a new video is made. A proposed revision of Method 145, Color Measurement of the Blue Wool Lightfastness Standards: Instrumental, is underway.

A proposed committee document entitled "Method for Instrumental Assessment of the Change in Color of a Test Specimen," is ready for committee letter ballot. Plans for the 1995 Joint Meeting of ISCC/AATCC in Greensboro were discussed.

*from Color Byte,
newsletter of SheLyn, Inc.*

DETROIT COLOR COUNCIL



Following the April '94 DCC/ISCC Auto DesignTech in Detroit, symposium speaker Roy Berns of

Rochester Institute of Technology issued a call for support of research on industrial color difference evaluation. A panel at the symposium had discussed merits of the CMC color difference formula relative to a newer approach, simply termed TC 1-29, under evaluation by the international CIE. The Detroit Colour Council has responded by committing \$7500 annually for two years as a member of the consortium for this research. Companies or professional societies interested in membership in the consortium can contact Dr. Roy Berns at (716) 475-2230. Input to the research will be welcomed from consortium members representatives.

A cross-functional automotive committee of DCC has been working on a standard practice for General Motors. Ford and Chrysler on visual color match evaluation. This will be an optimal consolidation of existing practices for automotive needs, drawing from SAE, ASTM and auto company test methods. DCC is currently finalizing Technical Bulletin #3, Procedure For Visual Evaluation of Interior and Exterior Automotive Trim. A symposium on the subject will be held in March, 1995 in the Detroit area and will serve as a public forum on the project.

The DCC will again support instruction at Eastern Michigan University in color technology. In a departure from past practice, the course was moved from fall semester to spring semester to allow better use of facilities. This will be a full week, daytime course, May 1-May 5, 1995, taking either non-credit or for two credit hours.

DCC officers for 1995: president - Laura Schaefer, Morton International; vice president - Bob Santine, X-Rite, Inc; secretary - Dan Macdonald, Penn Color; treasurer - Kathy Webb, BASF; pst president - Pat Oldenkamp, Eagle-Ottawa Leather.

DETROIT COLOUR COUNCIL

NOVEMBER 9, 1994 MEETING



The Council's last meeting of the year was well attended. 176 people heard from two well-known

automotive speakers. Gerry Piaskowski, Chrysler Design, gave a very interesting presentation on changes at Chrysler and how they affected fabric design. Most interesting was the use of computer aided design which can be printed and used to check design concepts. This is a major improvement over having material made, which is both costly and time-consuming. Gerry had a good slide presentation on the direction automotive fabrics are heading.

He also had a Jeep Grand Cherokee, painted with a special color on display in the front of the room. This was a good lead-in for the next speaker, Jon Hall, Chief Designer, BASF. Jon's presentation described a new multilayer flake pigment which can be made to selectively reflect specific wavelengths of light. The first part of his talk covered new pearlescent and coated aluminum flakes, along with examples, to show what can be done today with automotive quality colors. He then showed examples of what the new "Optically Variable Interference" pigments can do. The shift in hue from yellow-green to red in one example, was quite dramatic,

(Continued→)

This pigment, made by Flex Products, Inc., California, consists of an opaque Metal Reflector sandwiched between dielectric layers and transparent absorber metals. Jon's talk generated a lot of interest from the audience.

Jim Keiser

SID TO HOLD SECOND ANNUAL DISPLAY MANUFACTURING TECHNOLOGY CONFERENCE



Wyckham D. Seelig, Global Manufacturing

Planning Vice President of AT&T Global Manufacturing & Engineering in Berkeley Heights, New Jersey, will be the keynote speaker at the Society for Information Display's second annual Display Manufacturing Technology Conference (DMTC), to be held at the Santa Clara Convention Center, Santa Clara, California, January 31 - February 2, 1995.

DMTC is North America's only trade show and conference devoted exclusively to display manufacturing.

"Wyck will reveal a new manufacturing paradigm that is based on recent understandings of worldwide manufacturing in an address entitled 'Global Issues in Manufacturing and the Impact for flat Panel Displays,'" said Conference Chair Sal Lalama, who is also Manager of Camera and Display Applications at AT&T High Resolution Technologies.

DMTC '95 will kick off on Tuesday afternoon, January 31, with visions of display manufacturing's future and critical reviews of its immediate past. This session contains

two invited papers. In "The Present and the Future of AMLCD Production," Shinji Morozumi of Hosiden Corporation reviews the limitations of the first-generation production equipment for 10-inch TFT-LCDs and how it contributed to low yields and high cost. He describes the improvements in plate size, cycle time, and yield in the second-generation equipment, which manufacturers began to install in 1994, and looks at the likely requirements for third-generation systems.

In "The Second Industrial Revolution," Joseph J. McHugh, Senior Vice President of Sony Display and Component Products, says that today's managers are faced with the unenviable task of changing all facets of their businesses simply to survive. By reducing non-value-added costs, managers can hasten the emergence of the total value-added organization, "the theme of the 90s." The opportunities for change are so vast as to be almost incomprehensible, says McHugh, and the immediate returns are huge.

Other technical sessions will cover electronic interconnect materials and processes, display standards, CRT display alignment and testing, CRT technology, FPD processing, display materials, display inspection, and manufacturing systems engineering.

Evening activities include a reception in the Exhibit Hall on Tuesday sponsored by the Society for Information Display (SID) and a Wednesday reception sponsored by SID, the United States Display Consortium (USDC), and Semiconductor Equipment and Materials International (SEMI). The Wednesday evening reception will be followed by a panel discussion on worldwide government activities in support of display technology and manufacturing, said Lalama.

For DMTC registration and hotel information, call Mark Goldfarb, Palisades Institute for Research Services, 1745 Jefferson Davis Highway, Suite 500, Arlington, VA 22202. Phone (800) 787-7477, (703)413-3891; Fax (703)413-1315.

Submitted by Karen Braun

SOCIETY OF PLASTICS ENGINEERS

Color and Appearance Division



The CAD held their annual RETEC in 1994 in Chicago on September 20-21, 1994 in conjunction with the SPE Chicago Section. It had a record attendance of 512, one ahead of the 1992 Cherry Hill RETEC (511). The following papers were presented:

Photochromic Dyes of Enhanced Performance

Dr. David Clarke, Fiona Ellwood & James Robinson, Keystone Aniline Corp.

Proper Assessment for the Letdowns of Carbon Black Concentrates

Michael Yu, Cabot Corporation

Fluorescent Pigments as Plastics Colorants: An Overview

Darren Bianchi, Radiant Color

Processing Conditions and Their Effect on Color

Albert James, HunterLab

Three Color Effects from Interference Pigments

Louis Armanini, The Mearl Corporation

Starting a Brand New Color Lab

Robert Trinklein, RTP Company

Responding To: You Never Show Us Anything New

Randall Boeller, Compaq Computers

The Effect of Particle Size, Illumination and Observation of Lustre Pigments

Sigrid Teaney, E.M. Industries

Improving the Processibility of Fluorescent Pigments

David Heyl, Dayglo Color Corporation

Dispersing Aids for Carbon Black Pigments in Polyethylene

R.D. Hollis & Kenneth W. Hyche, Eastman Chemical Company

Chrysler Corporation Color Program for Exterior Painted Panels

*Mitra Sioshansi, Terese Muscat & Fred Davis, Chrysler Corporation
Greg Shrider, X-Rite*

Specifying Specialty Colors Using the Pantone Plastics Color System

*Robert Marcus, Color Standard Laboratory, Pantone Inc. &
George Trapp, International Color Standard*

Photochromic Dyes: How Long Do They Last?

Dr. V. Malatesta, Great Lakes Chemical, Enichem Synthesis

ISO 9001: The Missing Link in Product Design

Tamora Janisko & Charles Bradshaw, Americhem Inc.

Special Effect Colorants and Non-Dispersing Pigments for Thermoplastics

Jim Kochanski, Mica-Tek

Preliminary Studies of Improved Dispersing Aids for Fluorescent Pigments in Polyolefin Plastics

K. W. Kyche & R. D. Hollis, Eastman Chemical

Visual Texture

Josef Feldman, FM Group Inc.

Color Styling with Genuine Metallics in Plastics

Henning Bunge, Obron Atlantic Corporation

Controlling Metallic and Pearlescent Colors with an Eight Degree Integrating Sphere Spectrophotometer and Existing Color Formulation Software

John Mueller, Datacolor International

A Review of Progress in the Coloration of Plastics

Bansi Kaul, Sandoz Chemicals

Measurement Techniques for Special Effect Colors

Russ Steimle, X-Rite Inc.

OTHER NEWS

AIC INTERIM MEETING 95

Colorimetry

**Berlin, Germany
September 4-6, 1995**

AIC

A three day AIC Interim Meeting on Colour will be held in Berlin

September 4-6, 1995. The topics will be centered around: Measuring, generating and processing colorimetric data. The conference will be held in the historical center of Berlin which is now Capitol of the united Germany again!

Call for Papers

Oral presentations related to all colorimetric aspects of colour are welcome. The topics:

Measurement
Generation
Processing

of colorimetric data include subjects such as measurement techniques for goniochromatic and retroreflective materials, measuring and matching sample pairs, colour control, tolerances, generation of colours for test of electronic (digital) color reproduction techniques, data procession of device independent colours, calculation of colorimetric data from radiometric data, etc.

Social Program

A reception is planned and an excursion which includes a conference dinner will be organized.

Berlin is a city of throbbing vitality, full of surprises. Berlin is a

(Continued→)

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Hindered Amine Light Stabilizers (HAS) Pigments - HAS Structural Effects on Color Strength

*Douglas Horsey & Andrew Leggio, Ciba Additives Division
Roger Reinicker, Ciba Pigment Fibers Technical Center*

Laser Marking of Polyethylene and Other Polyolefins with Additives

Terry McKee, Lumonics

The Enhancement of Laser Marking Plastic Polymers with Pearlescent Pigments

Jeff Babich & Gerhard Edler, E.M. Industries & E. Merck

Interaction of Lasers with Plastics and Other Materials

Shiv Dass, Lasertechnics Inc.

The Technical Meetings for 1995 are the SPE ANTEC in Boston the first week of May and the CAD RETEC in Charleston, SC during September.

Awards were presented to the following people at the Chicago RETEC:

Bruce Mulholland	-	1994 ANTEC Best Paper
William Longley	-	1993 RETEC Best Paper
Robert Charvat	-	Honored Service Award
Frank Fasano	-	Outstanding Achievement Award
Brian West	-	Outgoing CAD Chairman
Gary Beebe	-	Outgoing TPC Chairman

Gary E. Beebe

together a range of disciplines which can contribute to an understanding of these problems. Scientific papers are invited on any aspect of the topic such as:

- Psychophysical studies of, for example, colour, size, or object constancy
- Physiological studies of the mechanisms underlying visual constancies
- Algorithms and formal models of visual constancies
- Hardware and software for generating displays suitable for studies of constancy
- Visual constancies in applied contexts
- Studies of constancy and invariance in the 'real world'
- Open contributions
Professor Jan J Koenderink, University of Utrecht, will give the Geoffrey J Burton Memorial Lecture

Please send abstracts (200-300 words, deadline 9 December 1994) and expressions of interest to:

Dr John Harris,
Tel: +44 734 318522
Department of Psychology,
Fax: +44 734 316604
University of Reading,
E-mail: sxsharis@uk.ac.reading
Reading RG6 2AL, U.K.

SIXTH INTERNATIONAL CONFERENCE ANNOUNCEMENT & CALL FOR PAPERS

**Vision In Vehicles
University of Derby, UK
13-16 September 1995**

**The Applied Vision
Association in conjunction
with the Ergonomics Society and the**

treat. You can sense it everywhere, see it - in art, in the cultural scene, in the people themselves and in daily life. You can even steep yourself back into history here. And not far away, nature beckons with 'Berlin parks, forests, lakes and rivers.

Please send a title and abstract by March 1, 1995 to

Prof. Dr. Heinz Terstiege
c/9 BAM
Unter den Eichen 87
12205 Berlin, Germany
Fax: x49 30 812 10 83

APPLIED VISION ASSOCIATION ANNUAL CONFERENCE

CALL FOR PAPERS Invariance and constancy in vision

**3rd to 5th April 1995,
University of Reading, U.K.**

Problems of visual invariance and constancy have long been of interest to researchers in biological vision, and are becoming of increasing importance in machine vision also. This conference will bring

Association of Optometrists announce the Sixth International Conference on Vision in Vehicles. This meeting is run with the participation of INRETS (Institut National de Recherche sur les Transports et leur Sécurité). This highly successful conference series was established in 1985. Vision is of paramount importance in vehicle control. Visual information must be presented in a way that can be rapidly assimilated. This multi-disciplinary conference will provide an international forum for the exchange of information on current research encompassing all aspects of vision and its relationship to vehicle design. This includes both the internal and external design of the vehicle as well as the perceptual and cognitive capabilities and limitations of the vehicle controller. The scope of the conference will cover all types of vehicles (e.g. cars, trucks, trains, aircraft, helicopters, ships, military vehicles) where the task involves monitoring both in-vehicle displays and the surrounding visual environment in both day and night-time conditions. The conference will therefore be of interest to vehicle and instrument designers from any of the above industries, psychologists, ergonomists, ophthalmologists, optometrists, highway engineers, traffic planners, lighting engineers, legislators and anyone concerned with safety in vehicles.

PAPERS

Oral and poster presentations are invited. Topics covered will include:

Functional requirements of the driving task; External environment; Internal Environment; Simulation/virtual reality; Attention, cognitive & perceptual performance; Road transport information; Intelligent driver-support systems; Night myopia; Driver's vision; Older drivers;

SYMPOSIA AND WORKSHOPS

Proposals are welcomed for Symposia and Workshops.

These should include title,

provisional paper titles and speakers. Please contact us for further information.

DEADLINE

Offers of individual papers and symposia are invited. Typed abstracts (300 words maximum) should be submitted to the address below by MONDAY 13TH FEBRUARY 1995. Submission by e-mail is preferable, but fax or post is acceptable.

PUBLICATION

Selected and edited conference proceedings will be published for which oral and poster presentations will be given equal standing. The proceedings of the five previous conferences have been published by Elsevier Science Publishers BV (North Holland).

ORGANISING COMMITTEE

Prof A G Gale, University of Derby; UK, Dr I D Brown, Cambridge, UK; Dr C M Haslegrave, University of Nottingham, UK; Dr P Smith, Association of Optometrists, UK; Dr S P Taylor, UK.

For further information or to be added to the mailing list, please contact the address below:

MAILING ADDRESS

VIV6
Applied Vision Research Unit
University of Derby
Mickleover Derby DE3 5GX, UK
Tel/Fax: (44)-(0)1332-622287;
email: \@derby.ac.uk

PLEASE NOTE: This conference was originally advertised as being held in France. Due to unforeseen circumstances the venue has been changed. The 1997 conference will be held in France at a venue to be decided.

*Submitted by: Prof. Alastair G. Gale
A.Gale@uk.ac.derby*

CIE DIVISION 1 ACTIVITIES

VISION AND COLOR



Paula Alessi, the US member, summarized the work of the

Division this past year in a report dated October 15, 1994, to Technical Council, United States National Committee (USNC). Progress was reported in five Technical Committees (TCs) and on appointment of a Reporter. Alessi's report is summarized as follows:

1. TC 1-27, Specification of Colour Appearance for Reflective Media and Self-Luminous Display Comparisons published "CIE Guidelines for Coordinated Research on Evaluation of Colour Appearance Models for Reflection Print and Self-Luminous Display Comparisons," in *Color Research and Application* v 19, n 1, Feb 1994, pp 48-58. Three researchers have indicated that they are conducting experiments that follow the guidelines: (1) Karen Braun, RIT Munsell Color Science Laboratory (USA), (2) Ronnie Luo, University of Derby (UK), (3) Masato Abe, Chiba University (Japan). (4) Robert Y. Wei, Chinese Culture University (Taiwan). Their experiments should provide data for evaluation of a color appearance model.

2. TC 1-29, Industrial Color Difference Comparison, recommended a new color-difference model for industrial color-difference evaluation to replace CIELAB and CIELUV. It is named "The CIE 1994 (ΔL^* , ΔC^*_{ab} , ΔH^*_{ab}) Color-Difference Model" with symbol, ΔE^*_{94} , and

(Continued→)

abbreviation CIE94.

3. TC 1-32, Prediction of Corresponding Colours, has completed its work. Two publications have resulted: CIE Publication 109, A Method of Predicting Corresponding Colors Under Different Chromatic and Illuminance Adaptations; CIE Publication D007, Computer Program for Calculation of Corresponding Colors. D007 consists of two computer programs for calculating corresponding colors on a PC by using DOS or MS-WINDOWS. User defined parameters are: (1) test and reference illuminant chromaticities and illuminances, and (2) luminance factor of the background.

4. TC 1-33, Colour Rendering, has decided not to wait for a single color-appearance model. Instead it will consider using a colour rendering index based on CIELAB and Nayatani's chromatic adaptation formula.

5. TC-34, Testing Colour Appearance Models, has received test data from an extensive series of experiments carried out by the Color Science Association of Japan as well as data from McCann et al. that were converted to colorimetric notations. The TC Chairman has consolidated these data and distributed them to TC members. Tests should be completed in 1994. Two experiments that directly tested color appearance models were completed by Fairchild et al. at RIT. These results will be contributed to the Committee. Guidelines for future research have been drafted.

6. Y. Nayatani (Japan) has been appointed as Reporter R-10 on Observer Metamerism to review CIE Publication 80, Special Metamerism Index: Change in Observer, and to recommend whether a new version is needed.

Harry K. Hammond III

EMPG MEETINGS TO BE HELD IN REGENSBURG GERMANY

The 26th European Mathematical Psychology Group (EMPG) meetings will take place at the University of Regensburg, Germany, Monday, September 4 through Thursday, September 7, 1995.

The meetings provide an opportunity to present papers from all areas of mathematical psychology.

In conjunction with the meetings a symposium in honor of Prof. R. Duncan Luce on the occasion of his 70th birthday will be held. A number of distinguished speakers have agreed to partake in this event.

There are plans to publish the papers in a special issue of the Journal of Mathematical Psychology.

The deadline for the submission of abstracts is February 28, 1995.

The University of Regensburg is located in the medieval city of Regensburg in the state of Bavaria. The city is situated at the crossroads from Prague to Munich and from Frankfurt to Vienna, 60 miles north of Munich, the closest international airport.

The area is vacation country. Tourist Information encourages participants not to postpone their hotel reservations beyond May '95.

For more information including registration and rooming reservations contact

E-mail:
Jan.Drosler@Psychologie.Uni-Regensburg.de

Regular mail:
Prof. Drosler
Universitaet Regensburg
Institut fuer Psychologie
93040 Regensburg
Germany

Fax: +49 941 943 4992
Telephone: +49 941 943 3773

1994 IS&T PHOENIX CONFERENCE REPORT



With the advance of technology, the manipulation

of color images is becoming commonplace. Wherever we find computers and printers, we now find a broad range of people working with images and with color. Last year, the IS&T/SID Color Imaging Conference took form to address their needs. This second annual meeting was held in Scottsdale, Arizona. While research has been going on for years in many places, this conference has instantly become a central forum for those interested in color and images.

The conference lasted four days and offered intensive exposure to both basic concepts and recent advances in color imaging. The numbers tell the story; there were thirty six oral presentations, twenty-two poster papers, and five tutorials in a period of four days. Drawing from the best research in this healthy and rapidly expanding industry, attendees were treated to work of the highest quality. Invited speakers came from Japan, England, Russia and the United States.

Contributors covered everything from color vision and appearance to color engineering (new term in the field), with an emphasis on imaging applications. Many talks addressed image quality and device independence issues, especially through instrument calibration, color correction and gamut mapping schemes. However, this short description does not do justice to the varied and creative approaches presented. The conference proceedings are comprehensive and are available through the IS&T.

Congratulations are due the

organizers at IS&T and the SID for a beautifully managed conference. If you have something to do with color imaging, this annual meeting is for you. Think seriously about a trip to Scottsdale next year.

Ronald Oldchurch

NIST

Belinda Collins, as leader of the Lighting Group at the National Institute of Standards and Technology, is responsible for all research plans conducted by NIST dealing with illumination. Research in the Building and Fire Research Laboratories includes basic measurement and computer modeling of the interaction of lighting and HVAC systems, lighting efficiency assessments, experimental evaluation and modeling of the interaction of light sources and color, and the evaluation of lighting and other environmental parameters in offices.

Dr. Collins has conducted considerable original research in lighting and vision and studied their influence on human performance and environmental conditions. Her work includes extensive investigations of lighting quality, the visibility of exit signs and directional indicators, the effectiveness of safety colors under different illuminants for both occupational and highway safety, and the detectability of meat and poultry defects under different light sources. These studies led to recommendations for revisions of the life safety code, the safety color codes, and regulations for meat and poultry inspections. She has done considerable work in the field of detectability and recognizability of topmarks for buoys for the US Coast Guard as well as assessing the impact of windows on occupants and the use of venetian blinds in response to solar orientation. Shortly before joining NIST, Dr. Collins published a lengthy review of research on color deficiency and an experiment on the detectability of camouflages military targets.

Dr. Collins continues to be a very active contributor to IESNA. She has been a member of the IESNA Papers Committee for many years and served as its chairwoman from 1990 to 1993. She is a member of the IESNA Psychological Aspects and Emergency Lighting committees. She has authored 28 technical papers and coauthored more than 50 papers dealing with vision, color, and the psychology of light and vision. Many of her papers were presented at the annual conferences of the IESNA and published in the Journal of the IES and LD&A. This devotion to the Society assured her deserved status as Fellow.

*From LD+A (Lighting Design & Application)
August 1994
Harry Hammond*

C A L E N D A R

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

Harry K. Hammond, III
or
John Peterson
BYK-Gardner, USA
2435 Linden Lane
Silver Spring, MD 20910
Phone: 301-495-7150
Fax: 301-585-4067

1995

ASTM COMMITTEE D-1 ON PAINT

Jan. 22-24
San Antonio, Texas
Information: Scott Orthey
Phone: (215) 299-5507

ASTM COMMITTEE E-12 ON APPEARANCE

Jan. 25-27
Phoenix, Arizona
Information: Bode Buckley
Phone: (215) 299-5599

ISCC WILLIAMSBURG CONFERENCE

Feb. 12-15
Pan-Chromatic Conference
Inter-Society Color Council Williamsburg Conference
Williamsburg, Virginia
Information: Dr. Steven A. Shafer
Phone: (412) 268-2527

NPL

Feb. 14
GLOSS Standards, Application and Measurement
NPL Spectrophotometry and Colorimetry Club
Oil and Colour Chemists' Association
National Physical Laboratory
Teddington, Middlesex
Information: Yvonne Waterman - OCCA
Priory House
967 Harrow Road
Wembley, Middx., HA0 2SF
Phone: 081-908 1086
Fax: 081-908 1219

(Continued→)

INTERNATIONAL PIGMENT SOCIETY

Feb. 23-24
1995 Symposium and Exhibition - Innovation in Color
Science and Pigment Technology
Stouffer Renaissance Vinoy Hotel
St. Petersburg, Florida
Information: International Pigment Society
P. O. Box 1967
St. Petersburg, FL 33731
Phone: (813) 896-9261

ASTM COMMITTEE D-20 ON PLASTICS

Mar. 12-16
Denver, Colorado
Information: Katharine Schaaf
Phone: (215) 299-5529

TAGA ANNUAL CONFERENCE

Apr. 2-5
Technical Association of the Graphic Arts Annual Technical
Conference
Orlando, Florida
Information: Karen Lawrence
Phone: (716) 475-7470

COLOR COMMUNICATIONS

Apr. 19-21
International conference to be held at
Renold Conference Center, UMIST
Manchester, UK
Information: Mrs. P. A. Leigh
CE Office UMIST
P.O. Box 88
Manchester, M60 10D
Phone: (01) 61-200-3995
Fax: (01) 61-200-3534

ISCC ANNUAL MEETING

Apr. 23-25
Color and Textiles
Inter-Society Color Council with American Association of
Textile Chemists and Colorists
Holiday Inn Four Seasons
Greensboro, North Carolina
Information: Ann Laidlaw
Phone: (919) 274-1963

CMG CONFERENCE

May 14-16
Color Marketing Group International Color Directions
Conference
Fairmont Hotel
Dallas, Texas
Information: Katie Register
Phone: (703) 329-0155

CORM 95, ANNUAL MEETING

May 15-17
Council for Optical Radiation Measurement
Ottawa, Ontario, Canada
Information: Norbert Johnson
Phone: (612) 733-5939
Fax: (612) 733-6211

SID 95, International Symposium

May 21-26
Orlando, Florida
Information: Jay Morreale
Phone: (212) 620-3371
Fax: (212) 620-3379

ASTM COMMITTEE E-12 ON APPEARANCE

Jun. 21-23
Denver, Colorado
Information: Bode Buckley
Phone: (215) 299-5599

ASTM COMMITTEE D-1 ON PAINT

Jul. 9-13
Atlanta, Georgia
Information: Katharine Schaaf
Phone: (215) 299-5529

ASTM COMMITTEE D-20 ON PLASTICS

Jul. 9-13
Lake Como, Wisconsin
Information: Katharine Schaaf
Phone: (215) 299-5529

1995 IESNA ANNUAL CONFERENCE

Jul. 29 - Aug. 3
Marriott Marquis
New York City, New York
Information: Valerie Landers
IESNA
Phone: (212) 248-5000 ext. 117

AIC INTERIM MEETING '95

Colorimetry
Sep. 4-6
Berlin, Germany
Information: Prof. Dr. Heinz Terstiege
c/o BAM
Unter den Eichen 87
12205 Berlin, Germany
Fax: (011) 49-30-812-10-83

OSA ANNUAL MEETING

Sept. 10-15
Optical Society of America Annual Meeting

Portland, Oregon

Information: OSA Meeting Department
Phone: (202) 416-1980

AATCC CONFERENCE AND EXHIBITION

Oct. 8-11

American Association of Textile Chemists and Colorists
Hyatt Regency
Atlanta, Georgia
Information: AATCC
Phone: (919) 549-8141

FSCT ANNUAL MEETING AND 60TH PAINT INDUSTRY SHOW

Oct. 9-11

Federation of Societies for Coatings Technology
St. Louis, Missouri
Information: FSCT

CIE 23rd QUADRENNIAL MEETING

Nov. 1-3 Division Meetings: Nov. 6-8
International Commission on Illumination
Vigyan Bhavan Conference Complex
New Delhi, India

Information: Jonathan Hardis
Secretary USNC/CIE
Phone: (301) 975-2373
Fax: (301) 840-8551
E-mail: hardis@onyx.nist.gov

CMG CONFERENCE

Nov. 5-7

Color Marketing Group International Color Directions Conference
Phoenix, Arizona

Information: Katie Register
Phone: (703) 329-8500
Fax: (703) 329-0155

ASTM COMMITTEE D-20 ON PLASTICS

Nov. 13-16

Norfolk, Virginia
Information: Katharine Schaaf
Phone: (215) 299-5529

1996**ASTM COMMITTEE D-1 ON PAINT**

Jan. 21-24

Fort Lauderdale, Florida
Information: Scott Orthey
Phone: (215) 299-5507

ASTM COMMITTEE E-12 ON APPEARANCE

Jan. 22-24

Fort Lauderdale Florida
Information: Bode Buckley
Phone: (215) 299-5599

USNC/CIE "1995" ANNUAL MEETING

Jan. 27-29

United States National Committee of CIE
Orlando, Florida
Information: Bode Buckley
Phone: (215) 299-5599

ASTM COMMITTEE D-20 ON PLASTICS

Mar. 18-21

Orlando, Florida
Information: Katharine Schaaf
Phone: (215) 299-5529

TAGA ANNUAL CONFERENCE

Apr. 28 - May 1

Technical Association of the Graphic Arts Annual Technical Conference
Dallas, Texas
Information: Karen Lawrence
Phone: (716) 475-7470

ISCC/ASTM ANNUAL MEETING

May 5-7

Orlando, Florida
Information: Dr. Dan Rich
Phone: (609) 895-7427
Fax: (609) 895-7461

CMG CONFERENCE

May 5-7

Color Marketing Group Conference
Sheraton New Orleans
New Orleans, Louisiana
Information: Katie Register
Phone: (703) 329-8500
Fax: (703) 329-0155

ASTM COMMITTEE E-12 ON APPEARANCE

May 8-10

Orlando, Florida
Information: Bode Buckley
Phone: (215) 299-5599

ASTM COMMITTEE D-1 ON PAINT

Jun. 23-26

San Francisco, California
Information: Scott Orthey
Phone: (215) 299-5507

AATCC CONFERENCE AND EXHIBITION

Oct. 8-11

American Association of Textile Chemists and Colorists

Opryland Hotel

Nashville, Tennessee

Information: AATCC

Phone: (919) 549-8141

CMG FALL CONFERENCE

Nov. 3-5

Color Marketing Group Conference

Sheraton

Seattle, Washington

Information: Katie Register

Phone: (703) 329-8500

Fax: (703) 329-0155

ASTM COMMITTEE D-20 ON PLASTICS

Nov. 18-21

New Orleans, Louisiana

Information: Katharine Schaaf

Phone: (215) 299-5529

1997**ASTM COMMITTEE D-1 ON PAINT**

Jan. 26-29

Fort Lauderdale, Florida

Information: Scott Orthey

Phone: (215) 299-5507

TAGA ANNUAL CONFERENCE

May 4-7

Technical Association of the Graphic Arts Annual Technical Conference

Montreal or Quebec City, Canada

Information: Karen Lawrence

Phone: (716) 475-7470

COLOUR '97

May 26-30

8th AIC Quadrennial Meeting

Colour '97 Executive Committee Meeting

May 25

Kyoto International Conference Hall (KICH)

Kyoto, Japan

ISCC ANNUAL MEETING

Sep. 14-17

Inter-Society Color Council Annual Meeting with Color and Appearance Division of Society of Plastics Engineers

Newport, Rhode Island

Information: Gary Beebe

Phone: (215) 785-8497

AATCC CONFERENCE AND EXHIBITION

Sep. 28 - Oct. 1

American Association of Textile Chemists and Colorists

Marriot Marquis

Atlanta, Georgia

Information: AATCC

Phone: (919) 549-8141

1998**TAGA ANNUAL CONFERENCE**

May 3-6

Technical Association of the Graphic Arts Annual Technical Conference

Chicago, Illinois

Information: Karen Lawrence

Phone: (716) 475-7470

AATCC CONFERENCE AND EXHIBITION

Oct. 4-7

American Association of Textile Chemists and Colorists

Convention Center

Philadelphia, Pennsylvania

Information: AATCC

Phone: (919) 549-8141

1999**TAGA ANNUAL CONFERENCE**

May 2-5

Technical Association of the Graphic Arts Annual Technical Conference

Philadelphia, Pennsylvania

Information: Karen Lawrence

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AATCC CONFERENCE AND EXHIBITION

Oct. 12-15

American Association of Textile Chemists and Colorists

Convention Center

Charlotte, North Carolina

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This Section is intended to help ISCC members that are in need of, and are looking for employment. Here is an opportunity to use the resources at hand.

There is no charge for this service. However the restrictions are as follows:

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(Not including name address and/or telephone number).
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5. Neither the ISCC News nor the editors are responsible for any errors.
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