



Inter-Society Color Council News

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Upcoming ISCC Meetings

ISCC 2ND PANCHROMATIC CONFERENCE

February 19-21, 2000

Color In Its Surround

Savannah, GA.

Info: Dr. Cynthia Brewer, 814-865-5072;
fax: 814-865-7943 cbrewer@essc.psu.edu

ISCC ANNUAL MEETING & CPMA COLOR PIGMENTS CONFERENCE,

April 16-18, 2000

Charlotte, N.C.

Info: Romesh Kumar 410-823-2161
romesh.kumar@clariant.com

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November/December

ISCC'S President's Report

Michael H. Brill

13 October 1999

In the past my writing has been long on mathematics and short on salesmanship, so let me try combining these aspects into a medium-sized "sale-ogism." Here's a proof that at least 1000 people need to attend Cindy Brewer's Panchromatic Conference on Color in its Surround (February 20-21, Savannah, GA).

At the website <http://www.flash.net/%7Edrj2142/pages/colorSel.html> (which just turned blue when I typed it), there is a color-selection tool that could change the blue color into any color in a palette. That tool, called "Dougie's Color Picker," allows you to experiment with choosing colors for background, ordinary text, and two kinds of hypertext. It's a nice tool, quirkily named so as to attract attention, but the most amazing aspect of this web address is the number of hits it has received: over a million (actually 1,026,513)! This number appears at the bottom of the page, and is more than tenfold greater than the number of hits in the parent directory (that of Douglas R. Jacobson, which I recommend for some important background).

Even allowing for multiple hits (such as I just made to confirm the exact number), the number 1,026,513 implies there are a lot of folks interested in color in its surround, and they don't even need a nudge from the ISCC. Granted, most of these people won't be further interested in color selection, once they have chosen their various "chroma-fonts" from the Color Picker. But surely a small subset (say 0.1 percent) are interested in knowing how their fonts would survive against a background that's only partly controlled (such as a map), or how to design the colors in a complex living environment. Some might even be curious if the colors they see on their screen are the same ones Jacobson selected for his palette. This concern is the subject of the now active field of color management.

(continued on next page)

If 0.1 percent of the web-site hits represent people who are interested in these further aspects, there are 1000 people who need to attend the Panchromatic conference. (Q.E.D.)

Please visit the ISCC website <<http://www.iscc.org>> and read the complete program (including abstracts) of the Panchromatic Conference. Given the world-class speakers and relevance of the topics, anyone who sees the program is sure to attend. If only one in five of these people hears about the conference through the website or otherwise, I think it will soon be over-subscribed. So be sure to register early, before the rush.

Since my last report, the ISCC had a Board of Directors meeting in Providence, RI (October 2). At that meeting, three new developments emerged that I see as very positive for the ISCC.

First, Project Committee 51 (Guide to Material Standards) has just gained new life through the new chairmanship of Art Springsteen (who now is the CEO of the company Avian Technologies in New London, NH). Art has promised a document, possibly including fluorescent-material standards, by the time of the next Annual Meeting. I look forward to attending the session of Project Committee 51 in Charlotte during the Annual Meeting, and hope to see as many of you there as possible.

Second, New York City has become the home of a formidable coalition of a budding Student Chapter, Interest Group III, and the Education Committee. Jean Bourges (author of Color Bytes), has agreed to be the Chair of Interest Group III (Art, Design and Psychology), and has two Vice Chairs who teach at Fashion Institute of Technology: Georgia Kalivas and Margaret Miele. Geoffrey Rogers (also at FIT) is coordinating his Education Committee activities for the April meeting in conjunction with Jean. Please see their announcement in this Newsletter. Geoffrey is also encouraging students at FIT to organize a Student Chapter of ISCC. I expect some enthusiastic students to step forward soon and ensure the future of the ISCC.

Finally, the Bylaws change discussed in the past few

Newsletters has been passed by the member-body delegates and other voting members. Now, the individual members of the ISCC will be able to participate in electing the Officers and Directors. The Member-Body delegates and the Board will still decide on matters of policy and publications--including such policy changes as this one. I hope everyone is encouraged by this development to increase participation in the Society's activities.

See you in Savannah!

ISCC 2000 ANNUAL MEETING & COLOR SYMPOSIUM, APRIL 16-18, 1999

The 2000 ISCC Annual Meeting will be held in Charlotte, N.C. at the Hilton at University Place on April 16-18, in conjunction with the Color Pigments Manufacturers Association (CPMA). The program will consist of general ISCC sessions, followed by a two day symposium covering the following subjects:

**Pigments and Color Industry
Color Measurement
Environmental Aspects of Pigments
Color Formulations - Cost and Performance
New Technologies in Color
Computers in Color Testing
Color Difference and Tolerances
and other related Subjects**

Papers based on the above mentioned topics are invited for the symposium. Speakers will have 30 minutes for presentation followed by a 15 minute discussion. We expect a large attendance similar to our Annual Meeting in Newport, RI where we had the last joint meeting with CPMA. It will be great time for networking where industry meets others in color field. A block of rooms have been designated for ISCC at the rate of \$95 per night. Make your reservations early!

Send abstracts to:

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romesh.kumar@clariant.com

Barr Associates, Inc. Becomes ISCC Sustaining Member

Barr Associates, Inc. is pleased to become one of the newest Sustaining Members of the Inter-Society Color Council. Barr designs, develops, and manufactures optical filters and coatings for color matching, color correction and color measurement applications. Solutions include dichroic and bandpass filters, filter arrays and linear variable filters, and filters designed to match a specific color response such as color-temperature converters, photopic filters, and CIE x,y,z filters for standard or non-standard light sources.

Founded in 1971 to provide customized solutions to optical filtering problems, Barr has since become recognized for innovation in optical filter technology. Color instrument and device manufacturers come to Barr because of the customized service. No two color instruments or devices are exactly the same, so Barr custom-optimizes filters for individual devices based on the light sources and detectors in these devices. Because today's instruments and devices achieve their best performance through fiber optics, LED's and lasers, Barr's filters accommodate these technologies as a matter of course. Barr's filters, made with the most advanced techniques, can withstand extremes of temperature and humidity without noticeable change in performance. For example, filters with very narrow bandwidth maintain their percent transmission, full-width at half-maximum, and central wavelength under rigorous conditions.

Barr provides arrays of discrete filters with individual specifications in sizes appropriate for fiber-optic or photodiode applications. In order to satisfy the needs of color instrument and device manufacturers, Barr is increasing capacity to make linear variable filters (LVF's). LVF's are capable of giving a spectrum of any desired shape in a specified range (e.g. the visible range), thereby replacing the need for a grating.

Barr is looking forward to playing a more interactive role in specifying the color filters in instruments and devices of the next century, and plans to look to the ISCC as a forum for this interaction.

Billmeyer Receives E-12's Fred W. Billmeyer, Jr. Award



Presenting the award from L-R: Dr. Ellen Carter, Chair, E-12.92, Publicity; Jack A. Ladson; Chairs, E-12.97, Awards; & E-12.02, Spectrophotometry & Colorimetry; Dr. Fred W. Billmeyer, Jr.; Dr. Robert Marcus, Vice-Chair, E-12 on Color and Appearance and Chair, E-12.07, Color Order Systems; and Dr. Danny Rich, Chair, E-12.04, Color & Appearance Analysis.

On Monday, September 20, 1999, a group of Professor Fred Billmeyer's close friends travelled to his residence in Niskayuna, NY to present the first E-12 Color and Appearance Recognition Award, named the Fred W. Billmeyer, Jr. Award. The ASTM E-12 Fred W. Billmeyer Jr. Award is presented to those who have shown distinguished service to the ASTM Committee E-12 on Color and Appearance.

Fred became involved with ASTM in the 1940's with Committee D-20 on Plastics. In the 1960's he became a charter member of E-12. He was first chair of E12.01 on Terminology and was very influential in defining nomenclature for color and appearance. Fred was the technical liaison on most practices found in E-12.02, Spectrophotometry and Colorimetry and E12.04, Color and Appearance Analysis. Fred faithfully stays involved today in E-12.96 on Editorial Matters. In his position as chair of the Editorial Committee, he verifies that Practices, Test Methods, and Standards written by E-12 are clear and understandable.

It is right and fitting that Fred W. Billmeyer, Jr. be given the first E-12 recognition award for service.

Jack Ladson

Obituary

Ralph E. Pike

ISCC Loses a Long-Time Friend

Mr. Ralph E. Pike, 84, of White Horse Village, Newtown Square whose long letter to Dr. Ellen Carter about DuPont and ISCC was published in the July/August 1999 Issue of Inter-Society Color Council News, died early in September at Riddle Memorial Hospital of heart failure.

Mr. Pike was born and raised in Rochester, NY. He studied at the University of Rochester where he received a Master of Science degree in chemical engineering. He was employed by the DuPont Company in management positions working in automotive trade and industrial aspects of organic finishes research and in new product development and marketing. He worked in DuPont facilities in Illinois and Michigan, and managed the Marshall Laboratory in Philadelphia.

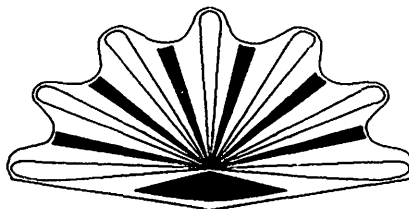
He was a President of the Inter-Society Color Council in 1964-1965, on the board of the Society of Manufacturing Engineers and a fellow of both the American Institute of Chemists and the American Chemical Society.

After his retirement from DuPont he spent two years in private consulting followed by several months in Quito, Ecuador with the International Executive Service Corps. Later he interviewed prospective candidates for this organization. He had a passion for International travel and for 44 years he and his wife enjoyed many opportunities to explore exotic places, circumnavigating the world three times.

He was involved in community activities wherever he lived. In Flint, MI he was active at the Art Institute and The Music Association, and served on the board of directors of the YMCA. He has lived in the Delaware Valley for the past 35 years, was a president of both the Rose Valley Folk and the Community Arts Center and was a member of "707." He was an elder at Swarthmore Presbyterian Church.

Mr. Pike is survived by Elizabeth (Betty), his wife of 58 years, his son Terry, his daughter-in-law April Cordts, and his grandchildren Ashley and Allison of Nazareth, PA; and his daughter Dr. Linda Pike Goodloe and son-in-law Robert Goodloe of New York City and Charlotte Harbor, FL.

A Memorial Service was held Monday, October 11 at the Swarthmore Presbyterian Church 727 Harvard Ave. Memorials may be made to the Swarthmore Presbyterian Church Music Fund or to the White Horse Village Endowment Fund, 535 Gradyville Rd., Newtown Square, PA 19073.



"Color Pigments For The New Millennium" To Be Sponsored Jointly By CPMA And ISCC

The Inter-Society Color Council (ISCC) and the Color Pigments Manufacturers Association, Inc. (CPMA) are combining efforts to sponsor the first all-encompassing color pigments conference of the 21st century. The date is April 17-19, 2000 in Charlotte, NC at the newly renovated Hilton Hotel at University Place. The conference immediately follows the 69th Annual Meeting of the ISCC and the Members' Meeting of the CPMA, both at the same location.

The CPMA and the ISCC first co-hosted a conference in Newport, RI in April 1993 with over 250 participants. Since then, both organizations have held independent conferences. Now, both are, again, combining efforts to present "Color Pigments For the New Millennium."

With both groups' experience in educational programs concerning colorants, and with CPMA being the largest color pigments association in the world and the organization that represents the North American color pigments industry, this conference is uniquely able to include topics and speakers not available from any other source. Past participants have benefited from the depth of the education sessions, and the varied industry networking opportunities available.

Registration begins late afternoon on Mon, April 17, 2000, followed by a reception that evening. Educational sessions will be held all day on both Tues and Wed, April 18-19. Tuesday features an all-conference luncheon and a second reception that evening. Continental breakfasts will be served Tuesday and Wednesday mornings. The conference adjourns at 4:00 p.m. on Wed, April 19.

Topics for this year's conference include the latest developments in color pigments, color measurement, environmental concerns, legislative and regulatory action of interest to manufacturers of color pigments, their suppliers and users, value and performance in color formulations, use of computers in color testing, and other related subjects.

For information and registration materials on this conference as well as materials for both the CPMA Members' Mtg and ISCC Annual Meeting, contact: CPMA/ISCC

Color Pigments Conf., 300 N. Washington St., Ste 102, Alexandria, VA 22314. 703-684-4044, fax: 703-684-1795, conference@cpma.com. For specific details about the ISCC Annual Meeting, please contact the ISCC Office, 11491 Sunset Hills Rd, Reston, VA 20190. 703-318-0263, fax: 703-318-0514, iscc@compuserve.com.

From the Office.....

Your ISCC membership renewal will be arriving soon. Make sure to update any contact information. Please note that ISCC accepts MC, Visa and Discover for all conference registrations and membership dues.

Obituary John Verrill

We regret to report that John Verrill passed away on 29 June 1999. He had been ill for some time, but only stopped working a few weeks before he died, he was determined to continue normally as long as possible, and he did this with characteristic bravery.

John joined the then Optical Metrology Division of the National Physical Laboratory (the UK's National Standards Laboratory) in March 1965, to work on diffraction gratings. However, he soon moved into colour measurement, and during the rest of his career established himself as a well-respected international expert in this field. He was appointed Head of the Colorimetry and Spectrophotometry Section at NPL in 1981 and for the next 18 years led and inspired his team to develop new and improved measurement methods and reference standards for the measurement of colour, reflectance and transmittance, many of which are now used throughout the world. This work took on even greater industrial importance with the increasing prevalence of new materials and technologies, such as multi-media colour reproduction.

Within the scientific community, John will be remembered for his expertise, professionalism and clarity of thought. But more than this, he will be missed as a good friend and colleague, and a man of great kindness, generosity and integrity. John was also a well-liked and respected member of his local community and an active member of the Church, where he campaigned for ecumenical harmony. He leaves his wife, Ann, and 4 children.

Teresa M. Goodman, NPL

Color Research & Application In This Issue, December 1999

For the first article in this issue, we look at the color of a banana. Close your eyes, and conjure up your own mental image of a delicious, ripe banana. You probably have a definite image in your mind of how the banana would look. This is a memory color. It is different than looking at a bowl of fruit and then looking away and trying to see how well you can remember the exact colors of the fruit you have just seen. This is your color memory. While memory color has been used in research, there have been very few studies to characterize the nature of memory colors per se. In "Representation of Memory Prototype for an Object Color," Sergej Yendrikhovskij, Frans Blommaert, and Huib de Ridder use the banana as the focus of their study to develop a general framework for modeling memory colors. This article relates closely to the article that the same authors published in this journal in the first issue of this year, "Color Reproduction and the Naturalness Constraint."

We move to the subject of color-appearance modeling for the next three articles. The first of these articles examines the use of neural networks for learning the color appearance model. In "Learning Color Appearance Models by Means of Feed-Forward Neural Networks," Paola Campadelli, Cristina Gangai, and Raimondo Schettini examine how well neural network programs can be used to approximate the different color appearance models. In this study the authors used the CIECAM97s, Hunt 94, LLAB, RLAB, and ZLAB models. They provide experimental evidence that, for several viewing conditions of practical interest, these models can easily and faithfully be approximated by feed-forward neural networks trained with the back-propagation algorithm.

While the Italian researchers examined new methods of applying the current models, a group of Japanese researchers were busy evaluating current models and looking for better models. In the next article, "Proposal of an Abridged Color-Appearance Model CIECAT94LAB and Its Field Trials,"

Yoshinobu Nayatani, Tadashi Yano, Kenjiro Hashimoto, and Hiroaki Sobagaki present a new simplified metric. They produce this new metric by combining the CIE 1994 chromatic-adaptation transform with some improvements, and the CIELAB color-difference metric. The new model has the features that it is easy to use computationally and can predict almost all the color-appearance phenomena.

Then in a second article, the same authors, only with Hiroaki Sobagaki as the lead author, take a critical look at the currently recommended simplified model, CIECAM97s. In "On Field Trials of CIECAM97s and its Model Structure," they enumerate several contradictions or inconsistencies in this formula and compare its predictions to the newly proposed model given in the previous article.

Finally since this is the last issue of the year, it also contains the annual index.

*Dr. Ellen Carter
Editor, CR&A*

The Color Association of the United States (CAUS)

If you are planning to visit or write to CAUS, please note that they have a new address. They moved recently to 589 Eighth Avenue, 12th Floor, NY, NY 10018. Their new phone number is 212-372-8600.

Exhibitions:

More than 500 artifacts are featured by the husband and wife team, Charles and Ray Eames at New York's Cooper-Hewitt Museum titled "A legacy of Invention." The exhibition is from October 12 through January 9, 2000.

"Fashion On Stage Couture for the Broadway Theater, 1910-1955," at the Museum of the City of New York, until February 27, 2000. A visually enticing selection of original couture designs, including pieces by Chanel, Mainbocher, Charles James and Hattie Carnegie. Using mirrors, door frames, and windows the exhibition is designed to evoke a Broadway production.

At F.I.T., "Unmistakably Mackie," a retrospective chronicling the career of Bob Mackie, the fashion designer whose visually provocative Hollywood style defined glamour in the 1970s. The Exhibit is from Sept 28 through Dec 31, 1999. "Patrick Kelly," from Sept 14 - Dec 31, 1999, the first full-scale retrospective to examine the life and work of the African-American designer (1954-1990).

What's New and Colorful in Vision Science

Historical Santa Fe, New Mexico plays host to the annual **Vision Science and Its Applications Topical Meeting (VSIA)**, a comprehensive examination of advances in the field. The conference will take place February 11-14, 2000 at Santa Fe's Eldorado Hotel. Sponsored by the Optical Society of America (OSA) in cooperation with the American Academy of Optometry, VSIA provides a forum for the discussion of current research in vision science. Its presenters and attendees represent a broad cross section of academic, research, clinical, and industrial communities.

A wide range of topics will be covered at VSIA, including psychophysical and electrophysical analysis of ophthalmic disorders, development, and aging; low vision research; perimetry; specialized ophthalmic photography; optical correction of refractive errors; and surgical correction and intraocular lens design.

Psychology Professor John S. Werner, (University of Colorado, Boulder) will be the **keynote speaker**. His talk will focus on color vision and aging, particularly as it relates to his interest in understanding the physiological computations and mechanisms that mediate human color vision. Werner believes it is useful to study vision in many forms, especially as it changes over the life span. His research therefore includes experiments in the classical psychophysical tradition with young adults, and also with subjects covering the range from infancy to old age.

In 1994, the Noninvasive Assessment of the Visual

System Topical Meeting and Ophthalmic and Visual Optics Topical Meeting joined to form VSIA. It has been held in New Mexico's capital city every year since, taking advantage of the beautiful weather and distinctive mix of cultures.

VSIA is collocated with the Laser Applications to Chemical and Environmental Analysis Topical Meeting. Also taking place is the **1st International Congress of Wavefront Sensing and Aberration-Free Refractive Correction**, a meeting aimed at bringing this related topic together with VSIA. The congress is organized by Ronald R. Krueger, Cole Eye Institute, Cleveland Clinic Foundation; Raymond A. Applegate, Univ. of Texas Health Science Ctr. at San Antonio; and Theo Seiler, Univ. of Dresden, Germany.

Some of the subjects to be covered during the congress include history and methods of ophthalmic wavefront sensing; principles of Hartmann/Shack Aberrometry; retinal imaging and adaptive optics; aberrometer interface with the wavelight laser; autonomous custom cornea LASIK outcomes; and future challenges to creating the aberration-free ablative corrections.

Don't miss this exciting opportunity to immerse yourself in vision science! If you are not yet an OSA member, sign up now! Registration for VSIA is only \$370 US for OSA members before January 13, 2000, and \$445 thereafter. OSA is your inside track to the optics and photonics community and your link to an international network of scientists, engineers, and technicians. Registration for non-members is \$445 (early registration) and \$520 after Jan 13. Further info: www.osa.org/mtg_conf/2000/VSIA.

OSA Presents Award

Congratulations to Gokhan Malkoc, Univ. Nevada, Reno, recipient of the **Vision and Color Division's Young Investigator Award** at the 1999 OSA Annual Mtg, in Santa Clara, CA. Malkoc received this award for his presentation entitled "Color-luminance Coding and the McCollough Effect," co-authored with Michael A. Webster (Univ. Nevada, Reno).

**Call For Papers
Interest Group I
Basic And Applied Research
Colors, Colorants, and Coloring
Abstract Deadline-Feb. 1, 2000**

What's new in how paper, plastics, buildings, textiles, food, money or automobiles are colored? Interest Group I invites abstracts on basic or applied research on the chemistry, physics, or psychophysics of colors, colorants, and coloring, and the related issues of color durability, measurement, and safety associated with new ways of coloring things.

One-page abstracts may be submitted to either Helen Epps, Chair or Frank O'Donnell, Vice Chair no later than February 1, 2000. Authors of abstracts accepted for presentation will be notified by Feb 15.

Dr. Helen H. Epps, Chair
Dawson Hall, The University of Georgia
Athens, GA 30602
hepps@gcs.uga.edu

Dr. Frank X. O'Donnell, Vice Chair
Sherwin Williams Co.
Cleveland Technical Center
601 Canal Road, Cleveland, OH 44113
fxodonnell@sherwin.com

**Call for Papers
Interest Group II
Industrial Applications of Color**

ISCC Interest Group II, "Industrial Applications of Color", serves to present the technical challenges and solutions that industry encounters in commercial color applications. In tying in with CPMA, a bridge between the science of color and the pigmentation of various materials is sought. The range of issues can include, but are not limited to, quality control techniques and color tolerancing, color measurement techniques, color matching, the relationship between color and other physical characteristics, as well as other color-related industrial applications.

For the Annual Meeting to be held in Charlotte, NC April 16-18, 2000, Interest Group II is soliciting contributed papers on the many industrial aspects and uses of color. To present, please submit an abstract of no more than 200 words by January 15, 2000.

Michael Stokes, Chair
Program Mgr-Color and Imaging
Microsoft Corporation
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mistokes@microsoft.com

Britt Nordby, Vice-Chair
Color Scientist
Creanova Inc.
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bnordby@creanovainc.com

Call For Papers/Discussants For ISCC April Annual Mtg Interest Group III and Education Committee

The Education Committee and Interest Group III are planning linked sessions on "Color in the Curriculum: The Need to Integrate Color and Technology in Education." The sessions will address the needs of industry - image production, marketing and advertising, manufacturing - for individuals trained in color, and how this need is being met by schools, colleges, and in-house training courses. A variety of perspectives are invited: from employers, artists and designers, production managers, advertising professionals, and teachers, to mention a few. Sessions will consist of presentations followed by a panel discussion. One goal of these sessions is to address how computers and digital imaging technologies have changed what artists and designers need to learn about color (see below). Anyone interested in participating should contact:

Dr. Geof Rogers, Chair, Education Committee
Fashion Institute of Technology, Room B831
227 West 27 Street, New York, NY 10001
212-217-7296, geof@matrixcolor.com

Ms. Margaret Miele, Vice-Chair, Interest Group III
Fashion Institute of Technology, Room 634
227 West 27 Street, New York, NY 10001
212-217-8449, mielemar@fitsuny.edu

Color Education in the Digital Era

Color image production is changing significantly with the introduction of digital technologies, both for the creator of color images - the artist and designer, and the producer of color images - the color technician. Traditionally, many artists have worked with color from an intuitive sense - their knowledge and use of color being based on experience. Today, more and more art and design is being produced digitally. In order for the artist or the color technician to control his palette he must understand how the computer, the display, and the hard copy output and inputs produce colors, and how color is transformed between the different devices. Both the artist and the color technician require an understanding of the principles of applied color science - the psychophysics of color perception, color mixing, the measurement of color, and the use of various color spaces. There is a widespread need for a basic curriculum of applied color science - the psychophysics of color perception, color mixing, the measurement of color, and the use of various color spaces. This session on Color Education is intended to address this issue from the perspective of the teacher and developer of curriculum as well as from the industrial producer of color images and color image technology.

ISCC Call For Poster Papers ISCC Annual Meeting, April 16-18, 2000

There will be a Poster Session at the 2000 ISCC Annual Meeting in Charlotte, North Carolina. The intent is to provide a vehicle that could be used by all ISCC members to share state-of-the-art color information. Whether you are an artist, scientist, industrialist, educator, student, or researcher, we are interested in hearing what is new in your area of color. The topics for this session are completely open. Each poster contribution should represent original work of a non-commercial nature, which is suitable for presentation even if the author is not present. This poster Paper Session will provide you with an excellent opportunity to present the innovative color work, that you may be doing, to color-interested colleagues attending the meeting. Please send entries, in the form of a title and abstract by March 1, 2000 to:

Yan Liu, Chair, Contributed Papers
2202 Seaman Avenue, South El Monte, CA 91733
(626)279-9198; Fax:(626)279-9298; yliu@sunnyait.com

ISCC Welcomes New Members

The following new members were approved at the October 2, 1999 ISCC Board Meeting:

Dr. Ron Antos	Lifetouch Technology Center, 7401 Bush Lake Rd., Ste B, Edina MN 55439 612-826-5563 rantos@lifetouch.com
Ms. Jean E. Bolinger	Chroma Corp., 4600 Lake Trail Dr., #2C, Lisle, IL 60532 630-579-4835 jnbolinger@aol.com
Ms. Marcia R. Cohen	Prof. The Atlanta College of Art, 859 Cardova Dr., NE, Atlanta, GA 30324 404-261-6364 mr.cohen@mindspring.com
Ms. Janice A. Helfand	Janice A. Helfand, 322 Frederick Street, #3, San Francisco, CA 94117 415-664-4393
Mr. Stephen Herman	Philips Research, 345 Scarborough Road., Briarcliff Manor, NY 10510 914-945-6072 sjh@philabs.research.philips.com
Dr. David Hinks	NC State Univ., College of Textiles, Box 8301, Raleigh, NC 27695-8301 919-515-6554 david_hinks@ncsu.edu
Mr. Chad Gibbs	Univ. of MN-Twin Cities/IDEC, 955 Palace Ave., St. Paul, MN 55102 651-224-1460 fj55@mninter.net
Dr. Walter C. Griggs	Emerit. Faculty, Dartmouth Med. School, 7 Pine Dr., Hanover, NH 03755 603-650-4434 walter.c.griggs@dartmouth.edu
Mr. Jack Lombardi	Estee Lauder Research, 125 Pinelawn Rd., Melville, NY 11758 516-531-1390 jlombardi@estee.com
Ms. Sandra Luehrsen	S. Luehr Studios, 907 W. 16th St., Tempe, AZ 85281-6409 480-967-6198 sluehr@earthlink.net
Ms. Lisa T. Martin	Fiber Visions, Inc., 7101 Alcovy Rd., ME, Covington, GA 30014 771-786-7011 lisa.martin@fibervisions.com
Mr. Gary Mazurek	510 Yale Road, Boulder, CO 80303 mazurek@stripe.colorado.edu
Ms. Margaret A. Miele	F.I.T., Seventh Ave. @ 27th Street, New York, NY 10001-5992 212-217-8449 mielemar@fitsuny.edu
Dr. Giuseppe Mignemi	A.I.L.U.N., Viale Della Resistenza, 39, I-08100 Nuoro (NU) Italy ++39-0784-226200
Ms. Katie Nifore	Lexmark International, 740 West New Circle Road, Lexington, KY 40550 606-232-4559 knifore@lexmark.com
Ms. Barbara Parker	Flex Products, Inc., 1402 Mariner Way, Santa Rosa, CA 95407 707-525-7910 barbara_parker@flexprod.com
Dr. Colman F. Shannon	Colman F. Shannon, Datacolor Intl., 5 Princess Rd., Lawrenceville, NJ 08648 609-895-7461 cshannon@datacolor.com
Ms. Sophia Sotiropoulou	Psakoudia, 63071 Ormylia, Greece ++30-371-54127 sophiaso@hovernet.gr
Mr. Jonathan D. Toutjian	Brooks College, 7001 Greeley St., #3, Tujunga, CA 91040 818-352-6509
Paul J. Warren	21-24 24th Street, Astoria, NY 11105 718-545-3554 paul.warren@fordfound.org
Dr. Cheng C. Yang	Angstrom Technologies, Inc., 48 Virginia Ave., Oceanside, NY 11572-5431 516-766-7731 ural@juno.com



The ISCC Newsletter Staff
wishes you a
Happy Holiday Season!



The Fourth Oxford Conference On Spectrometry

Color Marketing Group (CMG)

Co-sponsored by CORM and ORM (UK)

Tentative Date: June 10th-13th, 2002

Theme: Color Measurement and Spectrophotometry in the New Millennium

Tentative Program

Day One

Spectrophotometry (UV-Vis-NIR, MIR)

- * Standards
- * Instrumentation
- * Intercomparison

Day Two

Materials and Methodology for Color & Appearance

- * Appearance Measurement
- * Techniques
- * Measurement of fluorescence color
- * Standards

Day Three

Colorimetry and Spectral Measurement of Displays

- * Standards
- * Methodology and procedures
- * Problems and Measurement Techniques

Days 1-3

Poster Sessions on related topics.

Social outings, a show of equipment, a banquet with a renown speaker, and vendor sponsored events will accompany the technical sessions. The first 'Call for papers' will appear in the summer of 2001. Both invited and submitted papers will be included in the conference. For information contact:

Conference Coordinator:

Dr. Art Springsteen, AvianTechnologies
avian@kear.tds.net

Conference Chairpersons:

Ann Campbell Laidlaw, ann@shelyn.com
Dr. Art Springsteen (USA),
Teresa Goodman (UK-Eur.) tmg@npl.co.uk

Proceedings Editors:

Drs. Jerry Workman and Art Springsteen

Continuing from the last ISCC News, Color Marketing Group report finishes the Consumer Color Directions® Forecast for the year 2001:

Marrakesh Red: A soft red with the earthiness of natural dyes used in North Africa.

Apricot Ice: This pale, yet vibrant version of melon and apricot lightens earthy, ethnic palettes and complements rich dark purple and burgundy.

Orange Spice: An adrenaline pumping orange that is energetic yet sophisticated, driven by an interest in traditional colors of naturally dyed textiles.

Copper Blush: Tinted with white and pink, this mid value brown is reminiscent of a translucent cameo.

Latté: This rich, warm brown is a natural hue from reeds, bark and grains.

Burnished Sage: Green, gold and brown mingle to create an unusually complex sage.

Industrial Taupe: Soft and slightly pink, this taupe will be a neutral base for a wide variety of colors and environments.

Cityscape Gray: A neutral, yet technical gray.

Storm: Industrial and mechanical, this deep gray is based on that often reflects shades of blue or green

Mysteria: A sophisticated, mid-tone purple with the complexity of dried lavender.

Java Bean: A dark brown that is somewhat purple. It is rich, deep, and classic.

Vin Rouge: The color of Chianti.

Fushion: An active, unisex pink that is both sporty and glamorous.

Glass Block: Soothing aqua and the translucence of thick glass inspire this fresh pastel.

Capri Blue: Soft and atmospheric, this is a pastel version of the water in a tropical paradise.

Paddy Green: A bright, bold, clean, blue-based green.

For more information contact:

Color Marketing Group
5904 Richmond Hwy., Suite 408
Alexandria, VA 22303-1864
703-329-8500; fax: 703-329-0155
cmg@colormarketing.org

Corm 2000 Second Announcement and Call For Papers

**Optical Radiation Accreditation & Standards
Corm Annual Conference & Mtg
May 8 -10, 2000**

The year 2000 annual meeting and conference of the Council for Optical Radiation Measurements (CORM 2000) will be held at the Marriott Airport Hotel in Rochester, New York. CORM 2000 will focus on "Accreditation and Standards" issues in the fields of Radiometry and Optical Properties of Materials. The first day will feature a day-long session on accreditation and standards in radiometry, including discussions of NVLAP, A2LA, and NACLA. The second day will emphasize measurement and uncertainties in the area of color measurement.

The conference will also include CORM Technical Committee meetings and the annual CORM Banquet and Franc Grum Memorial Lecture. The banquet and lecture will be held at the award-winning Casa Larga Vineyards located in the viticultural region of the Finger Lakes.

For further information or to inquire about presenting a paper please contact either of the conference coordinators listed below:

Philip Wychorski
Eastman Kodak Company
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Fax: 716-722-4793
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Update on Hagley Library Color Fund

Funds are still needed to assist in creating a center for information about color at the Hagley Library in Wilmington, DE. Mr. Michael Nash, Chief Curator of Library Collections, has reported on progress toward making the collection of color materials sent from Cooper Hewitt Museum accessible to the public. He says that donations from ISCC members enabled the Library to hire an assistant with experience in dealing with archival materials during the summer.

The first step was to establish a logical arrangement of the material that had arrived in boxes and filing cabinets. The Hagley Museum and library were originally founded to preserve the history of American industry, so it is fitting that the main theme of the collection will be the marketing importance of color to many industries. With this in mind, it was decided to rearrange the material to reflect the structure of the ISCC. In other words, materials are being sorted as their matter relates to the various ISCC Memberbodies.

Basic preservation work, such as moving materials out of acidic folders has been done and a preliminary inventory completed. **Several boxes of additional materials have been donated by Fred Billmeyer, Jr. and is being catalogued.**

In order to continue rapid progress on such a large amount of material, much of it needing conservation as well as cataloging, there is a continuing need for funds. Mr. Nash has estimated that employing the necessary archival assistant and conservation technician will cost about \$32,000. So far ISCC has raised \$1,400.

It is hoped that work can continue at a pace that will allow graduate students and ISCC members to use the collection within eighteen months. The cataloging will place the material on the Hagley's on-line public access catalog which is accessible via the Internet.

Joy Turner Luke

Color Science Symposium March 23-24, 2000

AATCC is planning a Color Science Symposium to be held on March 23-24, 2000 at the Hyatt Regency in Greenville, SC. This is the 2nd Color Science Symposium sponsored by RA36, the Color Measurement Test Method Committee of AATCC. This symposium, chaired by Ann C. Laidlaw of Shelyn, Inc. will consist of 4 color and 2 break out sessions. The breakout sessions will allow the participants to interact with one another and discuss issues they face in the industry.

The following are the confirmed speakers and topics to date:

Session I: From Design through Retail - The Process

- **Color Trends and Forecasting**
Carole D'Arconte, Color Portfolio
- **Dyemaker/Production/QC**
John A. Darsey, Jr., Darsey Color Inc.
- **A Retailer's Color Concerns**
Jean Hoskin, Lane Bryant

Session II: Lighting Issues and Concerns

- **Color Perception**
Joy Turner Luke, Studio 231
- **How Bad is the Problem of Uniformity of Lighting**
David Hinks, NC State University
- **Color Rendering**
Keith Hoover, Fruit of the Loom
- **Coping with Lighting Issues**
Ralph Stanziola, Industrial Color Technology

Session III: Color Communication

- **Grouping Methods: Sorting and Tapering,**
Robert F. Willis, Shelyn Inc.
- **Internet Issues with Color and Color Rendition on a Monitor**
John S. Setchell, Jr., Eastman Kodak
- **Color and the Design Process**
Katy Chapman, Logikos LLC
- **Color Cleaver**
Joy Turner Luke, Studio 231

Session IV: Color Science Technology Updates

- **Color Vision Models**
Rolf G. Kuehni, Dystar LP
- **Technology Update: Closing the Loop**
Roland L. Connelly, Shelyn Inc.

A registration fee of \$495 (\$425 for individual and corporate AATCC members) will include luncheons, breaks and a copy of all available papers. For information contact Patty Simon, AATCC, P.O. Box 12215, Research Triangle Park, N.C. 27709-2215; 919-549-3546; fax 919-549-9333; simonp@aatcc.org. Visit our web site at www.aatcc.org for program updates or to register online.

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CALENDAR



Please send any information on Member-Body and other organization meetings involving color and appearance functions to:

Cynthia Sturke, ISCC Office
11491 Sunset Hills Rd. , Reston, Va 20190
tel: 703-318-0263 email: iscc@compuserve.com
fax: 703-318-0514 website: <http://www.iscc.org>

1999

IS&T/SID 7TH COLOR IMAGING CONFERENCE, Nov. 14-17, Color Science, Systems & Applications, Scottsdale, AZ. 703-642-9090 fax: 703-642-9094, info@imaging.org, website: www.imaging.org

ASPRS CONFERENCE PECORA 14/LAND SATELLITE INFORMATION III, Dec 6-10, "Demonstrating the Value of Satellite Imagery" Denver, CO. 301-493-0290; fax 301-493-0208; <http://www.asprs.org>

2000

ASTM COMMITTEE D-1, Jan 23-26 Paint and Related Coatings, Materials & Applications, Hyatt Regency, New Orleans, LA Info: T. Brooke, 610-832-9729, fax: 610-83-9666, tbroke@astm.org

ASTM COMMITTEE E-12, Jan 25-28, Color and Appearance, Hyatt Regency, New Orleans, LA, Info: Bode Buckley: 610-832-9740; fax: 610-832-1547; bbuckley@astm.org

OSA VISION SCIENCE AND ITS APPLICATIONS, February 11-14, Santa Fe, NM; Info: 202-416-1907, cust.serv@osa.org; Website: http://www.osa.org/mtg_conf/2000/vsia/

ANDINA PAINT 2000, Feb 16-17, Valencia, Venezuela, Rod Moon, 610-940-0777, rodm@coatingstech.org

ISCC 2ND PANCHROMATIC CONFERENCE, Feb 19-21, Color In Its Surround; Savannah, GA Info: Dr. Cynthia Brewer 814-865-5072; fax: 814-865-7943, cbrewer@essc.psu.edu

OPTICAL FIBER COMMUNICATION (OFC) CONFERENCE, March 5-10, Baltimore, MD; Info: Meeting, 202-416-1907, cust.serv@osa.org; Exhibits, 202-416-1950, exhibits@osa.org; Website: <http://www.osa.org/ofc>

IS&T CONFERENCE ON IMAGE PROCESSING, March 26-27, Portland Marriott Hotel, Portland, OR. pics@imaging.org website: <http://www.imaging.org/conferences/pics2000/authors.html>

TAGA ANNUAL TECHNICAL CONFERENCE, April 2 - 5, Marriott Hotel, Colorado Springs, CO. Info: 716-475-7470, fax: 716 475-2250, TAGAOfc@aol.com; website: <http://www.taga.org>

NPL COLOUR AND VISUAL SCALES 2000, April 3-5, National Physical Lab., CIE DIVISIONS 1 AND 2, April 6-8, Royal Holloway College, Univ. of London, Egham, Gr. Br.. Info: CIE Central Bureau or Linda Marshall, Colour 2000 Admin., The Old Manse, Nottingham Rd, Keyworth, Nottingham, NG12 5FB, UK +44 115 9376070 fax: +44 115 9375271

CIE DIVISION 8, April 10, **CIS2000 COLOUR IMAGE SCIENCE CONFERENCE**, April 10-12, Atrium, Univ. of Derby, Derby Gr. Br., Info: CIE Central Bureau or Linda Marshall, Colour 2000 Admin., The Old Manse, Nottingham Rd, Keyworth, Nottingham, NG12 5FB, UK +44 115 9376070 fax: +44 115 9375271 colour2000@colour.derby.ac.uk

ISCC ANNUAL MEETING & CPMA COLOR PIGMENTS CONFERENCE; April 16-18, ISCC and Color Pigments Mfg Assoc., Charlotte, N.C., Info: Romesh Kumar, tel: 410-823-2161, romesh.kumar@clariant.com

COLOR MARKETING GROUP CONFERENCE, April 30-May 2, San Diego, CA Tel: 703-329-8500

CONFERENCE ON LASERS AND ELECTRO-OPTICS (CLEO), May 7-12, San Francisco, CA; Info: Meeting, 202-416-1907, cust.serv@osa.org; Exhibits, 202-416-1950, exhibits@osa.org; Website: <http://www.osa.org/cleo>

SID 2000, May 14-19, Long Beach CA, 714-545-1526; socforinfodisplay@mcimail.com website: www.sid.org.

ARGENCOLOR 2000 - THE 5TH ARGENTINE COLOR CONGRESS, May 15-18, Mendoza, Argentina
 Contact: Prof. Haydee Palomo, extarte@raiz.uncu.edu.ar or Prof. Jose Luis Caivano, jcaivano@fadu.uba.ar

ASPRS ANNUAL CONF., May 22-26, Omni Shoreham Hotel, Washington, DC. 301-493-0290; fax: 301-493-0208;
www.asprs.org.

ASTM COMMITTEE D-1, June 11-14, Paint and Related Coatings, Materials and Applications, Ascagua's Nugget, Reno, NV Info: T. Brooke, 610-832-9729; fax: 610-832-9666; email: tbrooke@astm.org

ASTM COMMITTEE E-12, June 20-23, Color and Appearance, Sheraton Hotel, Toronto. Info: Bode Buckley: 610-832-9740; fax: 610-832-1547; bbuckley@astm.org

AATCC INTL CONFERENCE AND EXHIBITION, Sept. 12-20, Benton Conv. Ctr, Winston-Salem, SC, Hilda McQueen,
 Tel: 919-549-3549; Fax: 919-549-8141, mcqueenh@aatcc.org. Website: www.aatcc.org

CGIP 2000, Oct. 1-4, Intl Conf. on Color in Graphics and Image Processing. St.Etienne, France. Info: Alain Tremeau
tremeau@vision.univ-st-etienne.fr website: www.univ-st-etienne.fr/~iupvis

OSA ANNUAL MEETING, October 22-27, Providence, RI; Info: Meeting, 202-416-1907, cust.serv@osa.org; Exhibits, 202-416-1950, exhibits@osa.org

2000 AIC MEETING SEOUL, NOV. 6-7, Color and Environment. Seoul, Korea, 82-2-365-514 fax: 82-2-365-0014

IS&T/SID 8TH COLOR IMAGING CONFERENCE Nov. 6-10, Color Science, Systems & Applications, SunBurst Resort Hotel, Scottsdale, AZ. 703-642-9090 Fax: 703-642-9094 info@imaging.org; website: www.imaging.org

2001

ASTM COMMITTEE D-1, Jan. 23-26, Paint and Related Coatings, Materials and Applications, Info: T. Brooke,
 610-832-9729; fax: 610-83-9666; tbrooke@astm.org

ASTM COMMITTEE E-12, Jan 23-26, Color and Appearance, Embassy Suites, Ft. Lauderdale, FL. Info: Bode Buckley,
 610-832-9740; fax: 610-832-1547; bbuckley@astm.org

TAGA ANNUAL TECHNICAL CONFERENCE, April 22 - 25, Atlanta, GA. Info: 716- 475-7470; fax: 716- 475-2250,
TAGAOfc@aol.com; website: <http://www.taga.org>

ASPRS ANNUAL CONFERENCE, April 23-27, St. Louis, MO, 301-493-0290; Fax: 301-493-0208 www.asprs.org.

ISCC/AIC MTG, June 24-29, Rochester, NY; Paula J.Alessi, 716-477-7673; Fax: 716-722-1116 pjalessi@kodak.com

COLOR MARKETING GROUP CONFERENCE, Oct 29-31, 2000 Boston, MA; Tel: 703-329-8500

IS&T/SID 8TH COLOR IMAGING CONF., Nov. 5-9, Color Science, Systems & Applications, Scottsdale, AZ.
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Number 382 November/December 1999

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Please note: Deadline for submission of material is the 1st of each even numbered month. Material received after the 1st may not be printed until the following issue.

All submissions must be in English.

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