



Inter-Society Color Council News

Issue 437

January-February 2009

ISCC 2009 Annual Meeting and Munsell Color Science Laboratory's 25th Anniversary Symposium Updates

The ISCC Annual Meeting will be held on June 7, 2009 in Rochester, New York. It will be followed by the Munsell Color Science Laboratory's 25th Anniversary Symposium June 8. These are two important meetings, and shouldn't be missed by anyone working in an area associated with the field of color.

ISCC 2009 Annual Meeting-The presentation sessions at the ISCC Annual Meeting are based upon the three ISCC Interest Groups: *Fundamental and Applied Research*; *Industrial Applications of Color*; and *Art, Design, and Psychology* (IG III). A second call for papers for these sessions is on page 7 of this issue of the ISCC newsletter.

The ISCC 2009 Annual Meeting will also have a poster session (submissions for posters are also

welcome). An afternoon hors d'oeuvres reception will accompany the session and provide a great opportunity to mix with the next and previous generations of individuals working in the field of color.

In addition, the 2009 ISCC Annual Meeting will include a bonus education session. This session will address, in tutorial fashion, various aspects of the application of **color order systems** to the diverse interests of ISCC attendees. It will include experts from each interest group, with the goal being to conceptually "connect the dots" between the color applications in research, industry, and art and design.

25th Anniversary Celebration Symposium-The 25th Anniversary Celebration Symposium of the Munsell Color Science Laboratory will be held the following day, June 8. The theme of the symposium is *The Retrospective and Prospective Views of Color Science*. It will feature Retrospective Masters and Prospective Visionaries presenting papers. The retrospective master speakers are Robert W. G. Hunt, Rolf G. Kuehni, Calvin S. McCamy, and Alan R. Robertson. The prospective visionaries are James A. Ferwerda, Nathan Moroney, and Mark S. Rea. See page 6 of this newsletter for more information on the program for this special symposium.

Contents

ISCC 2009 Annual Meeting and MCSL Symposium		1
Call for Nominations for 2009 ISCC Godlove Award		2
HUE ANGLES		
Feynman's Paint-Mixing Problem		3
Joint Meeting of ISCC/CORM		4
CORM 2009 Annual Technical Conference ...		5
Puzzle Feature		
Rochester Color Reflections		5
MCSL 25th Anniversary Symposium		6
ISCC Annual Meeting, Second Announcement and Call for Papers		7
Color Research and Application, IN THIS ISSUE Volume 34, February 2009		8
Pantone Selects Color of the Year for 2009 ...		9
CALENDAR		10
CIE-USA and CIE-Canada Meetings		11
ISCC Sustaining Members		12
ISCC News Editor		12
ISCC Member Bodies		12



Bridge over the Genesee River, Downtown Rochester

ISCC EXECUTIVE OFFICERS

President	<i>Dr. Maria Nadal</i> Nat'l Inst. of Standards and Technology 100 Bureau Drive, Stop 8442 Gaithersburg, MD 20899-8442 301-975-4632 fax: 301-869-5700 maria.nadal@nist.gov
Secretary	<i>Mr. Jack Ladson</i> Color Science Consultancy 1000 Plowshare Road, B-1 Yardly, PA 19067 215-369-5005 fax: 215-369-3316 jack.ladson@verizon.net
Treasurer	<i>Mr. Hugh Fairman</i> P.O. Box 490 Tatamy, PA 18085 610-252-2120 resourceiii@erols.com
President-Elect	<i>Dr. Francis X. O'Donnell</i> The Sherwin Williams Company 610 Canal Road Cleveland, OH 44113 216-515-4810 fax: 216-515-4694 fxodonnell@sherwin.com
Past-President	<i>Dr. Robert Buckley</i> Xerox Corporation MS 0128-30E 800 Phillips Road Webster, NY 14580 585-422-1282 fax: 585-265-7441 Robert.Buckley@xerox.com

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Dr. Danny Rich	Sun Chemical Research 631 Central Avenue Carlstadt, NJ 07072 201-933-4500x1144 fax: 201-933-5658 dannyrich@softhome.net

2007-2010

Dr. David Hinks	North Carolina State University College of Textiles, P.O. Box 8301 Raleigh, NC 27695-8301 919-515-6554 fax: 919-515-6532 david_hinks@ncsu.edu
Dr. C. Cameron Miller	NIST 100 Bureau Drive, Stop 8442 Gaithersburg, MD 20899 301-845-4767 fax: 301-975-4713 c.miller@nist.gov
Ms. Barbara Parker	JDS Uniphase 1402 Mariner Way, Santa Rosa, CA 95407 707-525-7910 fax: 707-525-7533 Barbara.Parker@jdsu.com

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Mr. Henri DeBar	IsoColor, Inc. 631 Central Avenue Carlstadt, NJ 07072 201-935-4494 fax: 201-935-9404 hdebar@isocolor.com
Dr. Barbara Martinson	University of Minnesota Design Hse Ap 240 McNeal Hall, 1985 Buford Ave St. Paul, MN 55108 612-624-4239(o) fax: 612-624-2750 bmartins@umn.edu
Dr. David Wyble	RIT Munsell Color Science Laboratory 54 Lomb Memorial Drive Rochester, NY 14623-5604 585-475-7310 fax: 585-475-4444 wyble@cis.rit.edu

**CALL FOR NOMINATIONS FOR
2009 ISCC GODLOVE AWARD**

The Godlove Award is the most prestigious award bestowed by the Inter-Society Color Council, and honors long term contributions in the field of color. The Godlove Award was established in 1956 by Mrs. Margaret N. Godlove in memory of her husband, Dr. I. H. Godlove. The Award is usually, but not necessarily, presented biennially in odd-numbered years. The next Award is scheduled for presentation at the 2009 ISCC Annual Meeting to be held June 7, 2009 in Rochester, NY.



**Photograph of Robertson's 2007
Godlove Award**

Candidates will be judged by their contribution to any of the fields of interest related to color, whether or not it is represented by a Member-Body. This contribution may be direct, it may be in the active practical stimulation of the application of color, or it may be an outstanding dissemination of knowledge of color by writing or lecturing, based upon original contributions of the nominee. Candidates need not have been active in the affairs of the Council, but they must be current or former members. All candidates must have had at least five years experience in their particular field of color.

Nominations should include the following information:

1. The name and full address of the nominee.
2. A sentence or two giving the specific reason for the award's bestowal. This will normally form the basis for the citation presented to the successful nominee.
3. A narrative (up to one-page) of the nominee's contribution and its significance.

Continued on page 4

HUE ANGLES

(Send contributions to Michael H. Brill, mbrill@datacolor.com)

Physics Nobelist Richard Feynman not only played bongo drums in nightclubs, but also wrote two chapters on color and vision in his *Lectures on Physics*. And that's not all: There's also...

Feynman's Paint-Mixing Problem

Richard Feynman tells an interesting story [1] about revealing a painter's trick in mixing red and white paint to get yellow. Here's how it goes:

Feynman: "I don't know how you get yellow without using yellow."

Painter: "Well, if you mix red and white, you'll get yellow."

Feynman: "Are you sure you don't mean pink?"

Painter: "No, you'll get yellow."

Feynman: "It must be some kind of chemical change. Were you using some special pigments that make a chemical change?"

Painter: "No. Any old pigments will work."

So Feynman got a can of red and a can of white paint, and the painter began to mix them. It kept looking pink to Feynman. But then:

Painter: "I used to have a little tube of yellow here, to sharpen it up a bit—then this'll be yellow."

Feynman: "Oh! Of course! You add yellow, and you can get yellow, but you couldn't do it without the yellow."

Touché. Feynman wins.

But did he really? I remember looking at a white wall through a vial of yellow food-coloring liquid, and seeing it as red. That's because the transmission spectrum goes from very low at the short-wavelength (blue) end of the spectrum to nearly 1 at the long-wavelength (red) end of the spectrum. As one piles on more layers of the same fluid, the transmission spectrum multiplies by itself wavelength-by-wavelength (an action known as Beer's law, which by coincidence also happens when you look through beer). Therefore, at the wavelength where one ply of the liquid transmits half the incident energy, two ply of the liquid transmits only 1/4 of the energy. On the other hand, at wavelengths where one ply transmits all the energy, two ply will transmit all the energy as well. For a transmission coefficient that increases monotonically in wavelength (such as most

yellows), the transmitted-light spectrum becomes biased toward longer wavelengths (i.e., is redder) when the layer is thicker.

So there's at least one way red and white can will mix to give yellow: a clear diluting vehicle for the white and a red Beer's-law ink that transmits enough light at medium wavelengths so it yellows up when you see through less of it. Of course, you must have a reflecting background—let's make it matte white. As a numerical example, suppose a unit optical thickness of the red ink has transmittance zero for wavelengths below 540 nm, t for wavelengths between 540 and 640 nm, and 1 for wavelengths above 640 nm. The light reflected from the background through a unit thickness of ink can then be represented as the triplet $(0, t^2, 1)$. That triplet will change to $(0, t^{2x}, 1)$ when the optical thickness is changed to x . A deep red ink will have, say, $t^2 = 0.1$, whereupon ten-fold dilution of the ink ($x = 0.1$) will produce $t^{2x} = 0.7943$. The layer will therefore be substantially yellow.

You can also do this exercise (at least theoretically) with opaque red and white paints that obey Kubelka-Munk mixture algebra [2]. I'll elaborate about that in a future publication.

It seems, then, that the painter could have made a yellow by mixing particular red and white paints, contrary to Feynman's intuition. But it certainly couldn't be expected for all reds and whites as asserted by the painter. For example, drinkers of red wine (instead of beer) won't see the yellowing effect—diluted red wine looks pink, not yellowish. Why should wine obey Feynman's intuition where beer does not? The subject is worth much experimentation. Care to join me?

[1] R. P. Feynman and R. Leighton, *Surely You're Joking, Mr. Feynman* (Norton, New York, 1997), pp. 82-83.

[2] G. Wyszecki and W. S. Stiles, *Color Science*, (2nd Ed., Wiley, New York, 1982), p. 785.
Michael H. Brill, Datacolor

Godlove Award

Continued from page 2

4. A curriculum vitae and a publication list for the nominee, as well as any other material deemed useful.

5. The name of the person or Member Body or Award Committee who prepared the nomination with appropriate contact information.

The deadline for receipt of nominations is March 31, 2009.

Note: Confidentiality of the nomination is of the utmost importance. The nominating individual/group must ensure that the nomination is not disclosed to the proposed nominee. If any of the above information cannot be obtained without risking disclosure, the information should be omitted from the nominating letter.

Nominations should be sent to the Chair of the Godlove Award Committee:

Dr. Eric K. Zeise
Nexpress Division, Eastman Kodak Co.
2600 Manitou Rd.
Rochester, NY (USA) 14653-4140
Tel: (585) 726-4333 / Fax: (585) 726-7481
E-mail: eric.zeise@kodak.com

The 2009 Godlove Award Nominating Committee is comprised of:

Leslie Harrington, The Color Association of the United States,
Ann Laidlaw, X-Rite Corporation.
Nathan Moroney, Hewlett-Packard Labs.
Alan Robertson, National Research Council of Canada (retired).
Eric Zeise, Eastman Kodak Co. (chair).



Joint Meeting of ISCC/CORM



Lighting in Art, Commercial, and Retail Spaces
Oct. 13-14th, 2009

NIST Green Auditorium, Gaithersburg, Maryland

The Council for Optical Radiation Measurements and the Inter-society Color Council announce a joint meeting entitled "Lighting in Art, Commercial, and Retail Spaces" to be held on October 13-14, 2009 at the Green Auditorium at NIST. The conference will be applications based and looks to draw a field of experts from the fashion, commercial, and conservatorial (museum lighting) fields as well as experts in the field of lighting.

Sessions on the following topics are planned:

- Color Rendering in Art and Commercial Spaces. Effective modeling and application of lighting sources for presentation of art and commercial products.
- Measurement of sources *in situ*. Science and Metrology of measurement of Ambient Light in the Field
- Psychophysical Effects of Lighting. Research on the relationship between lighting and the human experience

The conference will also include tours of the NIST facility.

Technical Contacts:

Dr. David Wyble
Munsell Color Science Laboratory,
Rochester Institute of Technology
(585) 475 - 7310
wyble@cis.rit.edu

Dr. Art Springsteen
Avian Technologies LLC
(603) 526 - 2420
arts@aviantechnologies.com

Further details and a Call for Papers will follow in CORM's ORN #91 and following issues of ISCC News.

Member News

CORM 2009 Annual Technical Conference

Second Announcement and Call for Papers



The CORM 2009 conference will be held in Gaithersburg, Maryland, May 5-8 just a short distance from the National Institute of Standards and Technology. The conference theme is Solid State Lighting Standardization and Integrating Sphere Design, Measurements, and Applications. The conference is structured to provide interaction between the optical radiation industry and National Metrology Institutes (NMI's).

Schedule

- May 5 8:00 AM to 12:00 PM *Solid State Lighting Workshop*, Hosted by NIST
 1:00 PM to 4:30 PM *CORM Technical Committee Meetings*.
- May 6 CORM 2009 Conference: *Integrating Sphere Design, Measurement and Applications*,
 Session Chairs: Alan Tirpak, Optronic Laboratories; Angelo Arcchi, SphereOptics;
 Jim Leland, Gamma Scientific; Steve Newman, Labsphere
 6:00 PM *Reception and Franc Grum Memorial Lecture and Banquet*
- May 7 AM: CORM 2009 Conference *Solid State Lighting Standardization*
 1:30 PM to 3:30 PM *NIST Tour*. Advance registration for the NIST tour is required due to
 security requirements. No walk-in registration for the tour will be available.
 Deadlines: April 24th, 2009 (US citizen), April 17th, 2009 (non-US citizen).
- May 8 AM: CORM 2009 Conference *Solid State Lighting Standardization*, Session Chairs:
 Andy Jackson, Philips Lighting; Carl Anderson, Federal Highway Administration;
 Kevin Dowling, Philips Color Kinetics; Mark Sapcoe, Osram Sylvania

Program Coordinators:	Mr. Greg McKee, Labsphere, Inc. P.O. Box 70 North Sutton, NH 03260-0070 Ph: 603-927-4266 E-mail: gmckee@labsphere.com	Mr. Macedonio Anaya, The Boeing Company PO Box 3707, MC 2R-80 Seattle, WA 98124-2207 Ph: 206-544-5716 E-mail: massy.anaya@boeing.com
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See CORM's new web site, www.cormusa.org for more information.

Puzzle Feature

Rochester Color Reflections

Page 1 of ISCC News # 436 (Nov/Dec 08) has a photo of the Rochester skyline, in which the reflections in the water are much brighter and more colorful than the direct-path image. To me the brightness effect is more obvious in the printed black-and-white version. Why is the reflected image so much brighter and more colorful? Why are the reflected-image shapes vertically elongated? And why is the effect more pronounced in black and white? At the June ISCC meeting we'll have an informal session to compare answers. The best answer may get a prize and an opportunity to see the Ford Street Bridge view first-hand!

Submitted by Mike Brill

Solution for Nov/Dec Puzzle

Puzzle Feature: Achromatic Cryptoquote

And after it rains
 There's a rainbow
 And all of the colors are black
 It's not that the colors aren't there
 It's just imagin-ation they lack

Paul Simon, "My Little Town"

The ISCC newsletter editors have established a new feature -- puzzles with a color them. Please contribute a puzzle; all types are welcome. Send it to Cynthia Sturke at isccoffice@cs.com.

Munsell Color Science Laboratory 25th Anniversary Symposium



The Retrospective and Prospective Views of Color Science Rochester NY, June 8, 2009

During the early 1980's, the Munsell Color Foundation, Inc. was making plans to dissolve and transfer its assets to a university research program. A proposal was made by RIT to use the assets to establish a research laboratory, the Munsell Color Science Laboratory (MCSL), which would be directed by the newly established Richard S. Hunter Professor in Color Science, Appearance, and Technology. MCSL was established in 1983 and an inaugural symposium, "Frontiers in Color Science," was held February 1984 featuring the world's leading experts. Twenty-five years later, MCSL is an internationally recognized leader in color science research, education, and outreach. RIT is celebrating this milestone with another symposium, pairing masters and visionaries along with a summary of MCSL research accomplishments.

Retrospective Masters

Robert W. G. Hunt, Kodak Limited (retired) and Visiting Professor at Leeds University.

"The Wright Trichromator and Color Matching Functions"

Rolf G. Kuehni, Bayer Corporation (retired) and Adjunct Professor at North Carolina State University

"Three Attributes: From Newton to Munsell"

Calvin S. McCamy, National Institute of Standards and Technology (retired) and Macbeth Corporation (retired)

"Reflections on a Life in Color"

Alan R. Robertson, National Research Council Canada (retired).

"Color Differences: Past, Present and Future"

Prospective Visionaries

James A. Ferwerda, Associate Professor Center for Imaging Science and member of Munsell Color Science Laboratory at Rochester Institute of Technology.

"Computer Aided Appearance Design"

Nathan Moroney, Principle Scientist at Hewlett Packard Laboratories

"Color Science and Imaging: Future Opportunities"

Mark S. Rea, Director Lighting Research Center and Professor of Cognitive Science at Rensselaer Polytechnic Institute

"Lighting in the 21st Century: Opportunities and Challenges"

The technical sessions will be followed by two informative talks:

Mark D. Fairchild and **Roy S. Berns** Professors Center for Imaging Science and members of Munsell Color Science Laboratory at Rochester Institute of Technology.

"Twenty Five Years of Research at the Munsell Color Science Laboratory"

Mitchell R. Rosen, Research Assistant Professor Center for Imaging Science and member of Munsell Color Science Laboratory at Rochester Institute of Technology

"Virtual Tour of the Munsell Color Science Laboratory"

The day will close with an **Open House and Reception in the Munsell Color Science Laboratory**.

Second Announcement and Call for Papers



Inter-Society Color Council 2009 Annual Meeting and Munsell Color Science Laboratory 25th Anniversary Symposium June 7- 8 2009, Rochester NY



The ISCC will hold its 2009 Annual Meeting in Rochester NY at the Rochester Institute of Technology (RIT) on Sunday, June 7, followed by a special symposium hosted by the Munsell Color Science Laboratory (MCSL) celebrating their 25th anniversary on June 8.

RIT and the Rochester area bring a rich history of imaging, photography, and printing. RIT is well positioned to appeal to all three ISCC Interest Groups – with degree programs in graphics arts, design, printing, color and imaging sciences, and more, RIT represents a unique opportunity to address the strengths of ISCC.

Interest Group Sessions

The presentation sessions at annual meetings are based upon the three Interest Groups (IGs). These groups are: *Fundamental and Applied Research* (IG I); *Industrial Applications of Color* (IG II); and *Art, Design, and Psychology* (IG III).

The three IGs span the wide range of interests of ISCC individual and organizational members. Interest Group I, Fundamental and Applied Research, centers on research in the field of color, such as color vision, color order systems, and color instrumentation. Interest Group II, Industrial Application of Color, involves the practical application of color science to industrial applications. Interest Group III, Art, Design and Psychology, centers on color from the non-measurement perspective, bringing together physical sciences, artists, and affords a unique perspective in how color is perceived and acted upon by people.

Sunday Poster Session

Following the Sunday presentations a student poster session will highlight the efforts of students from RIT and other universities. An afternoon hors d'oeuvres reception will accompany the poster discussion and provide a great opportunity to mix with the next generation or with the previous one.

Bonus: Education Session

On Sunday an education session will feature, in tutorial fashion, various aspects of the application of **color order systems** to the diverse interests of ISCC attendees. This session will include experts from each interest group, with the goal being to conceptually “connect the dots” between the color applications in research, industry, and art and design.

MCSL 25th Anniversary Symposium

Technical sessions for this one day symposium will consist of invited lectures by experts from around the world. They will discuss color science as it applies to the history and research of MCSL over the last quarter century. These speakers have accepted invitations to present: Robert W. G. Hunt, Rolf G. Kuehni, Calvin S. McCamy, Alan R. Robertson, James A. Ferwerda, Nathan Moroney, and Mark S. Rea. More information on the speakers and presentations can be found at iscc.org/meetings/AM2009/mcsl25th.php

Submission Details

Those interested in presenting oral or poster papers should submit a three-page (maximum) abstract by March 1, 2009. A template is available from iscc.org/meetings/AM2009. Send abstracts to any of the technical committee members:

David Wyble, wyble@cis.rit.edu
Michael Brill, MBrill@datacolor.com
Jaime Gomez, jgomez@ktron.com
James Roberts, jim.roberts@altanachemie.com
Karen Braun, Karen.Braun@xerox.com

Accommodations and other arrangements are being made now. As more information becomes available, it will be posted at www.iscc.org. If you have any questions or concerns, or if you would like to help, please contact David Wyble, General Chair, at (585)475-7310 or wyble@cis.rit.edu.

Color Research and Application

IN THIS ISSUE Volume 34

February 2009

Before looking at the articles in this issue, I want to share with you the announcement of the retirement of two long-serving editorial board members. Together they represent over 60 years of participation with the journal. Joy Turner Luke joined the editorial board during the journal's inaugural year, 1976, and Yoshinobu Nayatani joined shortly after, in 1978. These two members have served long and diligently under all three editors and we honor them for their hard work and faithful support. As we begin our thirty fourth year, I am pleased to welcome our newest board member Shoji Tominaga. After thirty wonderful years at Osaka Electro-Communication University, Osaka, Japan, Dr. Tominaga joined the Faculty of engineering of Chiba University as Professor in the Department of Information and Image Sciences. He already has been an author and referee for the journal, and we look forward to continuing to work with him as a member of the Editorial Board.

Now we open this issue and this year's volume of Color Research and Application with a Talking about Color column written by Rolf Kuehni. His column, is trying to solve the mystery of George Palmer. Many of you have heard of George Palmer who authored the book *Theory of Colours and Vision* in 1777, but it turns out that George Palmer was quite a common name. Which George Palmer was the author?

Man began observing color with illumination that we could characterize as natural light. Gradually we moved to man-made light sources that mimicked the natural light and were more or less continuous across the spectrum of visible radiation. Gradually this began to change with the advent of fluorescent lighting that had sharp spikes at certain points in the visible region. But now with the advent of lighting coming from solid state light emitting diodes, we have come to the point where light sources can seem to be white, but have very narrow bands of energy. How does this affect the colors we see? In our first article Elodie Mahler, Jean-Jacques Ezrati, and Françoise Viénot discuss "Testing LED Lighting for Colour Discrimination and Colour Rendering." While this research is interesting for all scientifically, it is also of special importance for the Commission on Illumination (CIE) technical committee TC1.69 working on color rendering of white light sources.

On the same theme of bringing daylight inside for color evaluation, our second article is a "Proposal for an Indoor Daylight Illuminant." While the CIE had described a series of daylight illuminants, and recommended two D50 and D65 as standards, people noticed that items that were printed on paper containing optical brighteners looked different indoors than outdoors. Therefore, in 2004 the CIE formed a technical committee, TC1.66, to prepare a recommendation on an indoor daylight light source. Our next article by Katalin Gombos, Michael Pointer, Cecília Sik-Lanyi, Janos Schanda and Tünde Tarczali gives the background of the discussions of that technical committee and reports the results of the investigations.

Knowing the reflectance properties of objects allows us to do many tasks or do tasks better than when we only know the colorimetric properties of the objects or scenes. Some of the uses for reflectance curves are in formulation software, predicting the effect of changing the illuminant in a scene, graphic arts applications and e-commerce. But the best way of obtaining a useful reflectance curve (other than measuring the material) is still a topic of much research. We published an article on this as recently as October 2008. Now in this issue Niloofar Attarchi and Seyed Hossein Amirshahi discuss the "Reconstruction of Reflectance Data by a Modified Berns Gaussian Method." They describe two modifications that they make to the Berns Gaussian Method, which lead to improved results when compared with the original Berns method. They also compare their method to Principal Component Analysis, and the Hawkyard method.

Over the past couple of years Professor Antal Nemcsics has been publishing a series of articles on the "Experimental determination of laws of color harmony." The first one "Harmony content of different scales with similar hue" was published in December 2007, the second "Experimental determination of the laws of color harmony" was published in August 2008, and now in this issue we have "Part 3 - Harmony content of different hue pairs." The experiments described in this part established that harmony content of hue pairs can be expressed by the relative angle of their hue planes in the Coloroid color space. The harmony content of hue pairs exceeds that of other pairs, when this angle is below 10 degrees, between 30 and 40 degrees, between 130 and 140 degrees or near 180 degrees. Those color pairs of which hue planes are between 60 and

90 degrees to each other in Coloroid color space, exhibit the least harmony content. There will be more on this subject to come in a future issue.

Our next two articles are authored by Ralph Pridmore. In the article "Chroma, Chromatic Luminance, and Luminous Reflectance. Part I Basic Research, Dr. Pridmore examines the relationships between those parameters. The main finding is that chroma models to a function of luminance better than to colorimetric purity. The relationships shown in this article are used in the following article "Chroma, Chromatic Luminance, and Luminous Reflectance. II Related models," to model Munsell Chroma, colorfulness, and brightness.

"Using Appearance Maps to Predict Sensory Appreciation of Paints" is the subject studied by Olivier Etteradossi, Stephane Perquis, and Veronique Mikec. New pigments showing interference, nacreous, or metallic effects have helped industrial products become rich in visual effects in the last 20 years. Nowhere is this more apparent than in the automotive industry. However, measurement and evaluation of the quality of a coating which includes these gonioapparent pigments is a difficult task. In their studies Etteradossi, Perquis, and Mikec introduced the concept of appearance maps, based on multidimensional scaling and Procrustes analysis of the large amounts of spectroradiometric data spatially organized in both a planar and an angular way. In this article the authors look for the sensory meaning of these mapping parameters.

The attributes of color, shape, gloss and texture help an observer define an object. But also, these attributes affect the feelings the observer gets concerning the object. Color, form and texture are the focus of the experiments reported by Wen-Yuan Lee, M. Ronnier Luo, and Li-Chen Ou. In "Assessing the Affective Feelings of Two- & Three-Dimensional Objects," they report on the impact the physical attributes of an object have on our feelings about the object. The results show that there are five underlying factors, three relating to color and two relating to shape, that affect the feelings that the objects evoked.

From exploration of feelings we move even more deeply into the realm of art and emotions. Dr. Fong-Gong Wu, Eva Chang, and Ying-Jye Lee used color preference, association and creation of self-portraits to explore the relationship between color and depressive tendency. The colors used in artwork can

serve as a tracking tool, allowing others to observe a manifestation of depressions' onset and progression, or as a means to follow the healing process of posttraumatic subjects. Our next article, the "Manifestation of Depressive Tendency in Color Perception and Colors in a Self-portrait," reports their findings. Their research indicates that it may be possible to use color as an indicator for determining depressive tendency, and this would allow people to discover the problem in themselves or others at an earlier stage, leading to early treatment.

In our Industrial Applications section, Amir Rastar proposes a method of "Cinematic-film Protection Using Metameric Blacks." He states that the topic of this article is an outgrowth of a side study of metameric blacks and their unique features. He became curious about how the unique features of metameric blacks could be put into practical uses.

We close this issue with two important announcements. The first is about the Light and Lighting Conference coming up in May 2009 in Budapest, Hungary. The second is from the Munsell Color Science Laboratory at Rochester Institute of Technology, announcing their graduate programs in Color Science.

Ellen C. Carter

Editor, Color Research and Application

Pantone Selects Color of the Year for 2009

CARLSTADT, N.J., Dec. 3, 2008 - Pantone, an ISCC sustaining member, and an X-Rite company, announced PANTONE® 14-0848 Mimosa, a warm, engaging yellow, as the color of the year for 2009. In a time of economic uncertainty and political change, optimism is paramount and no other color expresses hope and reassurance more than yellow.



"The color yellow exemplifies the warmth and nurturing quality of the sun, properties we as humans are naturally drawn to for reassurance," explains Leatrice Eiseman, executive director of the Pantone Color Institute®. "Mimosa also speaks to enlightenment, as it is a hue that sparks imagination and innovation."

From 12/08/2009 Pantone Press Release

CALENDAR

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

Ms. Cynthia Sturke, ISCC Office Manager
ISCC Office
11491 Sunset Hills Road, Reston, VA 20190
703-318-0263 tel 703-318-0514 fax
isccoffice@cs.com website: www.iscc.org

2009

- | | |
|---------------------|---|
| Mar 10-12 | AATCC's International Conference (IC) , Hilton Myrtle Beach Resort, Myrtle Beach, SC, 919-549-8141, www.aatcc.org/ice/index.cfm |
| Mar 15-17 | TAGA 61st Annual Technical Conference , The Hotel Monteleone, New Orleans, Louisiana www.gain.net/eweb/docs/taga/09_taga_cfp.pdf |
| Mar 22-25 | 93rd Annual NAPIM Convention , Omni Orlando Resort at ChampionsGate, Orlando Florida, www.napim.org/publicarea/Conv2009/Program.aspx |
| May 4 - 7 | Archiving 2009 , the Society for Imaging Science and Technology et al., Hilton Crystal City, Arlington, Virginia, 703-642-9090, www.imaging.org/conferences/archiving2009/ |
| May 5-8 | CORM's Annual Conference: Solid State Lighting Measurements and Applications, and Integrating Sphere Design, Measurements, and Applications , Holiday Inn m Gaithersburg, MD, www.cormusa.org |
| May 25-26 | CIE Midterm Meeting 2009 , CIE Central Bureau, organizer, Budapest, Hungary, ciecb@cie.co.at |
| May 27-29 | LEDs and Solid State Lighting Conference , CIE-Hungary, Budapest, Hungary, www.cie.co.at/index_ie.html |
| Jun 1-3 | Light and Lighting, CIE Division 1 Meeting , Budapest, Hungary, www.cie-hungary.hu |
| Jun 7 | ISCC 2009 Annual Meeting , in conjunction with the Munsell Color Science Laboratory Symposium, Rochester, New York 703-318-0263, www.iscc.org |
| Jun 8 | Munsell Color Science Laboratory 25th Anniversary Symposium , Rochester, New York, mcsl.rit.edu |
| Jun 23-25 | ASTM E12, Color and Appearance , American Society for Testing and Materials, National Institute of Standards and Technology, Gaithersburg, MD, www.astm.org |
| Aug 11-14 | CGIV09, Computer Graphics, Imaging and Visualization Conference , hosted by Tianjin University, Tianjin China, www.graphicslink.co.uk/cgiv09/ |
| Sep 27-Oct 2 | AIC 11th Congress , Sydney, Australia, Organizer: Colour Society of Australia, Contact: Nick Harkness, www.aic2009.org |
| Sep 29-Oct 1 | Color and Food: From the Farm to the Table, AIC Interim Meeting , Mar del Plata, Argentina, Organizer: Grupo Argentino del Color, Contact: María L. F. de Mattiello gac@fadu.uba.ar . |
| Oct 13-14 | ISCC/CORM Special Topics Conference on Lighting in Art, Commercial and Retail Spaces , National Institute of Standards and Technology, Gaithersburg, MD, ISCC - 703-318-0263, www.iscc.org ; CORM - www.cormusa.org |

2009, Continued

- Oct 15-16** **CIE-USA and CIE-Canada technical and administrative meetings**, National Institute of Standards and Technology, Gaithersburg, MD
- Nov 9-11** **Seventeenth Color Imaging Conference**, The Society for Imaging Science and Technology cosponsored by the Society for Information Display (SID), Albuquerque, New Mexico, 703-642-9090, www.imaging.org
- Nov 15-17** **IES Annual Conference**, Illuminating Engineering Society, Seattle, Washington, www.ies.org

CIE-USA and CIE-Canada October Meetings

CIE-USA and CIE-Canada will hold technical meetings following the ISCC/CORM Special Symposium on Oct 15 and administrative meetings on Oct. 16. The meetings will be held at the National Institute of Standards in the Green Auditorium in Gaithersburg, MD. A call for papers will be put out soon on subjects related to the various divisions, but focused on Applications, i.e., CIE Divisions 3, 4, 5 and 8 concerns. The technical meetings will run from 9:00 to 16:00. On Friday morning the CIE/USA and CIE Canada administrative committees will meet separately for about two hours.



Publications Available from ISCC Office

ISCC 76th Annual Meeting Program and Abstracts, ISBN 978-1-4243-4273-0 \$25.00*

Color and Light by Fred W. Billmeyer Jr. & Harry K. Hammond, III. Authorized reprint from: ASTM Manual 17, Copyright 1996, ASTM International, 100 Bar Harbor Dr., W. Conshohocken, PA 19428.

\$5 ea or 20 copies/\$50.00

Demystifying Color by Bob Chung, 11 pages. Discusses and explains ten myths about color.

\$5 ea or 20 copies/\$50.00

ISCC 75th Anniversary Commemorative CD and Pin \$30*

Guide to Material Standards and Their Use in Color Measurement (ISCC TR-2003-1) \$50*

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Issue # 437

Jan/Feb 2009

Editor: Prof. Gultekin Celikiz
tel: 215-836-5729
gcelikiz@yahoo.com

Associate Editor: Cynthia Sturke
tel: 703-318-0263 fax: 703-318-0514
isccoffice@cs.com

Assistant Editor: Mary McKnight
tel: 301-869-7212
mary.mcknight@starpower.net

All submissions must be in English. Please submit materials by the 15th of each even numbered month. Materials submitted later may be printed in the following issue.

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[American Society for Testing and Materials International \(ASTM\)](#)
[American Society for Photogrammetry & Remote Sensing \(ASPRS\)](#)
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ISCC News Editor

Prof. Gultekin (Tek) Celikiz
gcelikiz@yahoo.com

1309 Paper Mill Rd, Erdenheim, PA 19038-7025
 tel: 215-836-5729

ISCC Office Manager

Cynthia J. Sturke, Office Mgr.
isccoffice@cs.com
www.iscc.org

11491 Sunset Hills Road, Reston, VA 20190
 tel: 703-318-0263 fax: 703-318-0514