



**Inter - Society Color Council
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*Hundreds and Thousands by Liz West
commissioned by Greenwich Peninsula,
on The Tide at Greenwich Peninsula
Photo credit: Charles Emerson*

ISCC Board of Directors Corner

Shoshana Burgett

Dear fellow ISCC member,

This issue's Board of Directors column is coming from Shoshana Burgett. I am currently an independent consultant and customer whisperer. I also blog on designing for manufacturing on colorkarma.com. It has become my way of passing knowledge forward.

On behalf of the entire Board, I would like to express our gratitude for the work and service of our esteemed colleagues, Dr. Danny Rich, Dr. Lina Cardenas, Ms. Amy Woolf and Ms. Luanne Stovall. Their term on the Board of Directors of the Council will conclude at the end of this year. We wish them prosperity and hope for their continued support, counsel and assistance.

I went on my own in 2019, launching two businesses. Pink Elephant Productions, focused on intelligence and customer insights, and Colorkarma. I love talking to customers and am called a customer whisperer, helping businesses find unique value and validate customer needs for products and services. Colorkarma is closer to my heart, finding a way to help the next generation avoid the color mistakes we made and avoid history repeating itself.

I have collaborated with the ISCC in previous roles and joined the Board of Directors in 2020. As an ISCC board member, I have helped more with the technology, cleaning up old databases and fine-tuning some website items. I also help when folks have Zoom challenges.

I live outside of Boston but grew up in Westchester, outside New York City. I was always an artist designing sneakers, jackets and the like in my youth to earn money. I went to the School of Visual Arts, graduating in 1990 with a BA in Graphic Design and Advertising. I am technology-focused, and in 1990 the economy was not in a great place, and I took a job at Business Link, a cutting-edge service bureau on 5th Avenue. It felt like working in an ER; every day was a new adventure. Our clients were leading advertising agencies, which eventually led to closing the doors 5-years later. However, we were like family, and many of us still are in touch, with one the godmother to my children.

After we closed, I taught color and design but eventually shifted to Corporate America, joining Xerox in 1997. I was one of six technical color analysts hired to support Xerox's newest production press, the iGen3. Just as in Business Link, this small group of color tech geeks bonded under the stress of a product that was not necessarily ready for prime time. This was when I got the nickname colorkarma. My customers were the first installs, and I made ICC profiles on weekends, working on projects like Shutterfly and Apple. In parallel, I went back to school at Rochester Institute of Technology for a Master of Science in Color and International Business. I had a class that was taught by Professor Bob Chung, who forced remote students to do RGB calculation by hand and then turn it in by FedEx in time. I remember that day well because I was so frustrated afterward that I ran and broke my ankle.

Eventually, I went to the UK office to help launch iGen3 into developing markets, and where I developed the first toner-out business model. After my assignment, I went to headquarters to run and manage the Digital Front Ends (DFE), EFI, Creo, and Free Flow. These DFEs are the brains of the printer, and talking color was like speaking religion; it got passionate and heated quickly.

After 14 years, I exited Xerox and went to Pantone X-Rite, specifically to help launch their PantoneLIVE. I eventually shifted from Global Marketing to Strategy and was introduced to color on textile and plastics. I developed the PantoneLAB, which consisted of 5,000 designers. It was a whole new world of color challenges, and like before, there were some core similarities across the materials.

I was reintroduced to the ISCC in 2018 at the Munsell Symposium and have stayed connected since then.

I am happy and honored to be part of this Board.

**Shoshana
aka colorkarma**



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Hue Angles

If CIECAM is the answer, what was the question?

Michael H. Brill, Datacolor

Imagine, while studying in preparation for his next life as a color scientist, the ghost of Alex Trebek visits us in his former role and announces his truly Final Jeopardy answer:
“CIECAM.”

The contestants blink and Trebek explains:
“If CIECAM is the answer, what was the question?”
And the contestants answer:

Contestant 1: “What model predicts symmetric color matches?” WRONG: That was CIEXYZ.

Contestant 2: “What model predicts asymmetric color matches?” WRONG: That was CIECAT.

Contestant 3: “What model predicts color difference?” WRONG: That was CIECAM-UCS.

Contestant 4: “What model allows a stimulus, in given viewing conditions, to be numerically described with correlates of perceptual attributes such as brightness, lightness, colorfulness, chroma, and hue?” [1] CORRECT: Although CIE’s color-appearance models, CIECAMs, are not the only possible models.

Contestant 2: “That’s not fair! I’ve seen CIECAMs tested by asymmetric matches, but never by the elusive ‘numerically described perceptual attributes.’”

Contestant 3: “Well, come to think of it, Luo et al. [2] describe experiments to test people’s ability to use particular perceptual attributes: ‘For the memory matching method, observers are first trained using the Munsell colour order system (or some other suitable system) until they are very familiar with these scales (i.e., Munsell Value, Chroma, and Hue) ... In the magnitude estimation method, observers are asked to make estimates of the magnitudes of some perceptual attributes (e.g., lightness, colourfulness, and hue). It is essential that each observer clearly understands the perceptual attributes being scaled.’”

Contestant 2: “It sounds as if those experiments tested the memorability and amenability for scaling of particular coordinates of a particular color-order system. They cannot make a statement about color appearance independent of the color-order coordinates chosen for training the subjects. How do you know one CAM is better than another if the subject’s training has such a bias? And I understand the precision of these tests is pretty low. I still think there is no match-free way to test a CAM—or for that matter, to use a CAM for color management. Alex is wrong and we should have a recount.”

Trebek: Well, it's time for me to go now. This discussion is turning into a quagmire, and it looks like real color-management systems rely on asymmetric match predictions anyway. So let's ask a professional organization like the ISCC to sort it out. Meanwhile, I'll have to tell my game-show successor that the right question for CIECAM is "What Color-management model is not out of Jeopardy?"

- [1] M. D. Fairchild and L. Reniff, A pictorial review of color appearance models, 1997 SID/IS&T Color Imaging Conference, first paragraph of Introduction.
- [2] M. R. Luo et al., Quantifying colour appearance part I. LUTCHI colour appearance data. *Color Res Appl* 16: 168-180 (1991).

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AIC 14th Congress Milan 2021

A Smashing Success!

Paula J. Alessi, ISCC Liaison to AIC

After much anticipation, the AIC 14th Congress Milan 2021 was held from August 30 – September 3 and it was certainly worth the wait! The hosts were the Associazione Italiana Colore, who did a marvelous job presenting this five-day Congress in a 100% online format. In fact, history was made as this was the first AIC Congress to be 100% virtual! The ISCC wishes to sincerely congratulate all the organizers of this Congress for their hard work and dedication to making this unique event flawless and successful!

One way to measure the success of the Congress is to describe it in terms of the numbers. There were 320 participants registered from around the world. There were 236 abstracts submitted from 37 different countries. After the double-blind peer review process for publication, 236 abstracts were accepted, 190 of which were full presentations and 46 were short presentations. Many thanks to the ISCC members who gave papers on different color-related topics during this Congress! Seven journals, including *Journal of the International Colour Association (JAIC)* and *Color Research and Application (CR&A)*, plan to publish many of the full papers in special issues that will be released in the coming months.

The Congress week featured one session for all participants on Monday and Friday with two parallel sessions on Tuesday through Thursday. This format allowed all 236 papers to be presented. Each Congress day was 12 hours long going from 9:00 Central European Summer Time (CEST) or 3AM Eastern Standard Time (EST) to 21:00 CEST or 3PM EST. Realistically, if this were an in-person meeting, each Congress day would be more like 8 or 9 hours long. The virtual format allowed people to come and go as they pleased depending on their schedules. Thankfully, the organizers tried to arrange the sessions according to registration requests. Hence the morning session times were geared more towards better times for Eastern participants, while afternoon sessions were geared towards more convenient times for Western participants. The sessions that should be of interest to all, like the Opening and Closing Ceremonies, AIC General Assembly, AIC Study Group Meetings, and Invited Speakers, were held mid-day to be at convenient times for participants from all time zones.

During the Opening Ceremony, we had the honor of meeting Vittorio Storaro, the renowned cinematographer, as he was presented a premier award from the Gruppo Del Colore. He is best known for his cinematography work on *Last Tango in Paris* (1972), *Apocalypse Now* (1979), *Reds* (1981), *The Last Emperor* (1987), *Dick Tracy* (1990), and *Wonder Wheel* (2017). Vittorio is one of three living people who received three Academy Awards for Best Cinematographer (*Apocalypse Now*, *Reds*, and *The Last Emperor*). He also has collaborated with such other well-known directors as Bernardo Bertolucci, Francis Ford Coppola, Warren Beatty and Woody Allen. His acceptance speech was delightful as he brought us into his world of deciding how to use color and light to convey the message of the film and its director.

The invited speaker presentations were refreshingly informative! Table 1 lists the speakers and titles of their talks.

Table 1: Invited Speakers

Invited Speaker	Title
Reiner Eschbach	“Color Deficient See This Way... Or Don’t They?”
Robin Jenkin	“The Influence of CFA Choice on Automotive and Other Critical Imaging Systems”
Luca Missoni	“Color in Fashion Design”
Austin Nevin	“Conservation Science and Changing Colours – Approaches to Measuring and Managing Change”
Giovanni Pinna	“Lighting and Color Design in the Show”
Pietro Marani	“Leonardo’s Color Today: From the Dark to the Light”
Francesca Valan	“Chromatic Sustainability: A New Approach to Color Design”

Special Sessions

One unique aspect of this Congress is that there were four special sessions on timely topics particularly germane to color in the 21st century.

1. Innovation and Research in Color for Beauty Care and Hairstyle – 14 presentations

This special session gathered scholars and experts of color in the field of beauty care and hairstyle for sharing their opinions, experiments and best practices involving color and the art of coloring. Some of the questions discussed were:



- What are the best practices to obtain a uniform color?
- How do colorists match a shade?
- Are there specific techniques to stabilize the formulations?
- How does one assess the final quality of make-up, both in the production and in the final effect after application?
- How is color managed in the cosmetic industry?

This is a subject that we rarely hear about at color conferences. It was refreshing to delve into this beauty area, where color is key to success!

2. All the Colors of Cinema – 11 presentations



Since the early years of cinema, color has been a powerful means for expressing mood, creating meaning, reflecting social and cultural customs, or setting the aesthetic tone of a film. Color in film is so important that we often see it become a character in and of itself. A wonderful example of this was in the presentation entitled "The Lilac Scarf – Color as a Visual Narrative as Depicted in the Film Far from Heaven." Here movie clips were aptly used to illustrate the color lilac being used to symbolize fantasy, day-dreaming and a rebellious streak in the main female character. This fascinating special session explored the multifaceted role that color has played in cinema since its inception. New trends and theories on the subject were mapped out with an interdisciplinary approach.

Anyone who enjoys movies left this session with a new appreciation for the importance of color usage beyond the obvious!

3. Colour, Light and Sound: Holistic Approach for Wellbeing – 13 presentations



"Light, Colour and Sound for Health and Wellbeing"

The frequencies of light, color and sound, of the quantum world, are fundamental to life. If, at any level, be it plant, animal or environment, waveform distortion arises, "dis-ease" follows. These captivating presentations explored the non-invasive and supportive ways in which light, color and sound could be used to help restore health and well-being.

Questions that were addressed were

- How do these disharmonies manifest?
- How can disharmonies be diagnosed, addressed and resolved?

Medicine, both allopathic and traditional, bio-energetic sources, systems of holistic health and case studies were adeptly used as illustrations.

4. All the Recent Books on Color – 9 presentations



The special session on books included short oral presentations on books about color or related topics, published in the last three years (2021, 2020, 2019). The authors were required to present their own books in a concise online presentation. Some books were published in English and others were in either one or more other languages.

It was refreshing to be able to discuss these new books with their passionate authors. The Question-and-Answer sessions were particularly helpful since the author was answering the questions!

AIC Study Groups

Four of the AIC Study Groups met in two simultaneous sessions.

1. Environmental Color Design

- Co-Chairs: Yulia A. Gruber and Verena M. Schindler

This Study Group plays a key role in disseminating the various approaches of professionals (scientists, designers, architects, art historians, artists, psychologists and others) from different geographical and cultural regions. The scope of research and study is broad and encompasses color in the built and socio-cultural environments, as well as the investigation of the effects of color upon human behavior, cognition and emotion. Most of their work is focused on a specific interest in color as a means of environmental design in interior and exterior spaces. They conducted a workshop with four speakers giving presentations on factors that impact variability between specified and perceived color, sociocultural color associations in Northeastern Brazil, comparison of perceived color in east vs. west cultures and Covid-19 face mask color and social messaging.

2. Arts and Design

- Chair: Maria João Durão

This Study Group welcomes artists and designers skilled in painting, photography, sculpture, drawing, illustration, printing, illuminated manuscripts, jewelry-making, fashion, product and industrial design, furniture design, automotive and aeronautic design, to name a few. Objectives of this Study Group include:

- Creation of a network where artists and designers can communicate and disseminate their work
- Incentive to share research in theory and practice of related disciplines
- Encouragement to participate in AIC conferences

Four presentations were included in this Study Group's workshop. The subjects shared were a case study of Florianópolis, Brazil, color harmony from an art, design and architecture point of view featuring tactile painting and haute couture, a two-part arts and design virtual exhibition, and London's largest painting.

3. The Language of Color

- Co-Chairs: Dimitris Mylonas and Galina Paramei

This Study Group objective is to share information and discuss studies on psycholinguistics, semantics and semiotics of color names and their relation to cognitive (neuro)science of color perception. The key topics that they deal with are color cognition, color naming, categorization, color memory, color semantics and semiotics, and cross-cultural differences. Their workshop featured three presentations dealing with the Bible's use of color and color meanings in Hebrew, Latin and Greek, the blues of Florence, Italy with triple basic terms, and translating color language between and within languages.

4. Color Education

- Co-Chairs: Maggie Maggio and Robert Hirschler

This study group is an international network of teachers within the field of color and other professionals with a specific interest in color education. Its aims are:

- Exchange of knowledge and experiences among its members
- Stimulation of teaching and research
- To inform about upcoming congresses, seminars, workshops and exhibitions which might be of interest
- To share news from congresses, seminars, workshops, publications and exhibitions.

This Study Group meeting featured an update on activities of the Colour Literacy Project as well as talks from color educators around the world.

Conclusion

This 14th AIC Congress was diverse with so many enlightening color topics that all participants left learning new concepts that are likely to expand their color knowledge in exciting new directions. Many thanks to Maurizio Rossi, Alessandro Rizzi, Marcello Picollo and other members of the Gruppo Del Colore and the Associazione Italiana Colore for organizing the first successful virtual Congress in AIC history!



Color Research and Application

From the Editor

Vol. 46-6, December 2021

By Ellen Carter

Color Order Systems, Color Mixtures and The Role of Cesia

The last issue of the year starts with a discussion of how to organize the concepts of visual appearance in terms of color. The article *Color order systems, color mixtures and the role of cesia* by Jose Luis Caivano, one of our Associate Editors, challenges the current modeling of color. Cesia is defined as an aspect of visual appearance that accounts for sensations that vary along three axes: transparent versus opaque, glossy versus matte and light versus dark. In the article Prof. Caivano provides an overview on how the shape of color solids of different order systems is related to various types of color mixtures, and how the degree of opacity or transparency of the coloring media defines the results, beyond the established categories of additive, partitive and subtractive mixtures. Then he postulates a single three-dimensional model, which involves a gradual transformation between different color systems, that represents any possible mixture between the additive and subtractive systems and also considers the degree of transparency, translucency or opacity of the material used.

The Location of Optimal Object Colors with More than Two Transitions

In the next article, *The location of optimal object colors with more than two transitions*, Scott A. Burns describes how color-matching functions form a cone enveloping all possible colors with the optimum object colors on the outer surface of the cone, when plotted as a set of three-dimensional vectors in tristimulus space. Although the cone surface is not entirely convex, Prof. Burns demonstrates that the non-convexity has little or no impact on practical colorimetric computations. However, it does have a significant impact on the shape of some optimal object color reflectance distributions. The linear program he developed can compute the reflectance distribution of optimal object colors and map regions where the higher-transition optimal colors reside on the object color solid surface. Using the model, an interesting complementary point-symmetry of the regions can be observed. The high-transition behavior is shown to be largely absent in more modern color-matching functions, such as the recent “physiologically-relevant” color-matching functions transformed from cone fundamentals.

Quantitative Scoring Methods of the Farnsworth D15 and Waggoner Computerized D15 Color Vision Tests in Clinical Practice

People take their color vision for granted and assume that what they see is the same as what others see, but there are many differences—some from heredity and some acquired as one ages. Since colors are used for signaling, identification, and/or warnings, correct identification of the color is important and may even be required for certain jobs. There are many tests to detect color vision deficiencies. For determining whether individuals have good enough color discrimination to perform their jobs safely, commonly the Farnsworth D15 color vision test (or its computerized version, the Waggoner color vision test D15) is used. In the article, *Quantitative scoring methods of the Farnsworth D15 and Waggoner computerized D15 color vision tests in clinical practice*, Ali Almustanyir, Reema Alduhayan, and Mosaad Alhassan discuss the technique of classification of color vision deficiencies using the above tests and rating the errors by assessing the number of crossings, the confusion index, total error score, and specificity index and angle. They found that determining the number of misaligned colors by counting the crossing was easier and faster to do, yet slightly better than the visual inspection for analyzing the severity of most of the failures.

Evaluation of the Color Measurement Based on a Microscopic Hyperspectral Imaging System

Traditionally spectrophotometers and colorimeters have been developed with various designs to measure the color of objects. More recently image analysis with higher spatial resolution makes it possible to locate, segment precisely fabric color and analyze at the pixel level. In the article *Evaluation of the color measurement based on a microscopic hyperspectral imaging system*, Kebin Qiu, Weiguo Chen, Hua Zhou, Chenglong Wang, and Zhihua Cui report on their study of the potential performance (spatial resolution, repeatability, accuracy) of

a microscopic hyperspectral imaging system designed for color measurement at the micron-grade level. They also discuss the steps to improve the performances of such instruments in the future, and some applications such as color prediction, color matching of colored fiber blends, and color management in microscopic dimensions.

Expanding the Color Gamut of Inkjet Textile Printing During Color Matching

Inkjet textile printing has become a very popular method for producing colored textiles for fashion apparel, sports, home textiles, automotive upholstery and a broad range of applications. When a textile is going to production, a color tolerance between reference sample (often seen on a display) and printed specimen of the material, must be in agreement between manufacturer and customer. The problem is that display systems generally have a larger color gamut than printer systems and so some colors that can be seen on a screen cannot be reproduced by the printer. In the next article, Abbas Hajipour and Ali Shams Nateri studied *Expanding the color gamut of inkjet textile printing during color matching* by considering the acceptable (pre-determined) color difference. They showed that the area and volume of the color gamut of the printed materials may be remarkably increased by considering the acceptable color difference at the outer boundaries of the inkjet dyes gamut plotted in CIELAB color space.

Preferred White Balance for Applications Using Virtual Backgrounds

Video conference calls have become a necessity for many people due to recent COVID-related restrictions. Many people participate in calls that are images of two different scenes, the foreground of the person or meeting information and a virtual background that the user has chosen. Due to the dissimilarities of the light sources used for the subject scene and the background scene, the overall picture may look aesthetically unappealing. Anku Anku and Susan P. Farnand studied the perceived color

quality of video conference calls in two experiments to evaluate the white balance appearance preference for images simulating a scene from a video conference call. In their article, *Preferred white balance for applications using virtual backgrounds*, they first assessed the preference of white balance for images containing a foreground subject, with three different skin tones: light, medium and dark, and a background scene, with five different color temperature appearances from cool to warm. Then they designed an experiment to assess the relationship between the background scene and foreground subject's white balance appearance.

Chromaticity Tunable Realizable Solution Process Single Layer White Organic Light Emitting Diode

White light emitting diodes (W-OLEDS) have shown great promise in solid-state lighting and display applications because they are cost-effective to process and are very efficient, thin and light weight. For these reasons, Selin Piravadili Mucur introduces the *Chromaticity tunable realizable solution process single layer white organic light emitting diode*. In his article with the same name, he explains how his group introduced an efficient and cost-effective strategy to provide solution processed films via blending host material poly-vinylcarbazole. It produces light closest to white color coordinates 0.33, 0.33. These scientists have synthesized novel white lighting material that has been suitable to low cost and easy solution processing technologies for the future mass production of the large area and flexible/nonflexible lighting products for W-OLEDs. These materials should procure the improved efficiencies with color rendering indices while obtaining energy savings and being cost effective.

Characterizing Skin Color Before and After 100-Meter Sprinting

The color of human skin color is important for medical diagnosis of cutaneous related disease, body and facial soft tissue prostheses, face detection and recognition, skin color reproduction in the graphic arts, and many other applications. In the Color and Vision section of the International Commission on Illumination, a Technical Committee is developing a skin color database for industrial applications by collecting skin reflectance measurements for different ethnicities, genders, ages

and body locations. In an effort to contribute data to the skin database, Li Jiang, Han Wang, Xiaohui Zhang, Cheng Gao, Kaida Xiao, Manuel Melgosa Latorre and Changjun Li designed an experiment to study the skin color of several places on the face and arm of a person and how it has changed after physical exertion. They report on their findings in their article, *Characterizing skin color before and after 100-meter sprinting*. The findings given in this article can be used to test previous physical models and achieve more realistic images of human skin.

Effect of Water on Color Changes of Historical Paintings

Moving into a section on color in artwork and its preservation and conservation, five articles are presented. Cleaning, which involves the removal of dirt and unwanted materials without disturbing the aesthetic characteristics and color of a work of art, is one of the most important, but controversial processes in the conservation treatment of paintings. Traditionally, the use of water was discouraged because of fear that it might cause swelling and leaching of pictorial materials and modification of the color but water has advantages when considering the health of the restorer and the environment. Therefore, for the first article in this section, Stefania Pasquale and Anna M. Gueli studied the *Effect of water on color changes of historical paintings*. Examining mock-ups of paintings prepared using historical pigments and binders, they quantify wetting the artwork and the water absorption consequences in terms of color variations. They recommend not using water for paintings that have high porosity or scant amounts of binder remaining. However, in other cases, water can be used in new cleaning methods based on the spreading of nanoparticles on the surface of the painting, thus playing a part of a good tool to apply in a green chemistry to save the health of the restorer and the environment.

Analysis of Photoaging Characteristics of Chinese Traditional Pigments and Dyes in Different Environments Based on Color Difference Principle

To analyze the photoaging characteristics of traditional dyes and pigments commonly used in Chinese cultural relics in different environments, the next study used traditional Chinese pigments to make colored paper samples, and used traditional dye extraction and dyeing technology to make colored silk samples. Zining Zhao, Peng Zhang, Xiaming Liu, Xiaohua Lei, and Yun Luo then used four different light sources in an experiment to test the effects of the lighting on sixteen traditional dyes and pigments. In their article, *Analysis of photoaging characteristics of Chinese traditional pigments and dyes in different environments based on color difference principle*, the comparison of the ageing effect on the study sample in a nitrogen atmosphere as compared to air. For traditional Chinese dyes with organic compounds as the main component, a nitrogen environment has a very obvious protective effect; but for pigments mainly composed of inorganic minerals, the protection effect of the nitrogen environment is relatively limited.

The Colors of Pre-Hispanic Textiles from Cemeteries in the Quillagua and San Pedro De Atacama Oases of Northern Chile

Several researchers have used information about the colors of dyes in Andean textiles to learn more about ancient Andean societies. Thus, the article *The colors of pre-Hispanic textiles from cemeteries in the Quillagua and San Pedro de Atacama oases of Northern Chile* by Hermann M Niemeyer, Lina Cárdenas, and David Veliz discusses the relationship of people with the environment and the processes of selection of sources of raw materials for textiles. The colors red, blue and yellow dominate, but yellow is particularly useful for gaining certain information because the species-specific patterns, color variation in yellow-dyed textiles and sources of ample distribution are dependent on biogeographical regions. The results are discussed in terms of the nature, variety and sources of the dyes involved and reveal the use of a limited number of yellow dyes in Northern Chile.

Application of Natural Yellow (Curcumin) Dye on Silk to Impart Multifunctional Finishing and Validation of Dyeing Process Using BBD Model

In the last 150 years synthetic dyes have been used in the textile industry resulting in a better quality of dyed products at an economic price. However, synthetic dyes involve compounds and heavy metals that are environmentally undesirable, causing a growing interest in finding alternative and eco-friendly ways to dye the textiles. It should be remembered that people have been extracting dyes from plants, fruits, vegetables, flowers and certain insects to color clothing for five millennia. Following this idea of developing environmentally friendly products, in the next article Shital S. Palaskar, Ravindra D. Kale, and Rajendra R. Deshmukh discuss the *Application of natural yellow (curcumin) dye on silk to impart multifunctional finishing and validation of dyeing process using BBD model*. After the optimization of the process, they report on the effect of dyeing parameters on the antioxidant properties of the curcumin-dyed mulberry silk fabric and the effect of pre-mordanting on functional properties of the silk.

Assessment of the Factors Affecting the Weathering Properties of Pigment Yellow 74 in Decorative Paint

Continuing on the topic of color in artworks and their conservation, and more specifically yellows, the next article switches from dyes for textiles to pigments used in paints and coatings. Pramod Nikam, Chandrashekara R. Haramagatti, and Amit Joshi present a report of the *Assessment of the factors affecting the weathering properties of pigment yellow 74 in decorative paint*. Using pigment from three manufacturers, they varied the dispersion factors of time, temperature and use of water cooling while preparing the test panels. Then all the panels underwent accelerated aging in one of two types of weathering chambers. During the aging, they measured the panels at regular intervals, recording the amount of color change. The major differences in performance or color fading were found to be the quality of pigments sourced from different manufacturers, which may arise from differences in surface treatment or crystal structures, and the temperature during processing of the dispersion. They found primers and base paint of different batches, test panels of different lots and the various weathering chambers showed no contribution to the differences of color and shade fading.

Visual Effect And Color Matching Of Dynamic Image

Webpage Design

The “use of color with the consumer in mind” is the focus of the next four articles. Shopping trends have changed from primarily shopping at local stores to looking on the internet for the desired item and then buying the products directly from websites. Understanding that color used appropriately on websites can enhance the product’s value and further improve the chance of products being purchased directly from the website, the next authors studied the factors that go into designing successful websites. In their article, *Visual effect and color matching of dynamic image webpage design* Lungwen Kuo, Tsui-yueh Chang, and Chih-Chun Lai examined several issues to produce an integrated effect system structure based on customers’ emotional responses to color, design, webpage, and overall visual appearance. Their research involved three experiments looking at color in different backgrounds to provide dynamic image effects. Then a fourth experiment focused on the optimal visual effect of geometrical compositions that were selected to determine the influence of the shapes on the user’s psychological reaction to the webpage, which enhanced the innovative website designs.

Color Emotional Design Based on a Convolutional Neural Network and Search Neural Network

With the broadened options of giving consumers opportunities to find what they want to purchase from anywhere in the world, manufacturers and designers are trying harder to not only provide the utility the consumer needs, but also to evoke the feelings of satisfaction for the customer by considering the color of the product. Man Ding, Yu Cheng, Jinyong Zhang, and Guanyi Du discuss this trend in their article, *Color emotional design based on a convolutional neural network and search neural network*. They not only present the processes of their color affective design method of determining the preferences of the customer, but also follow through with an example of the procedure for designing and selecting the colors for a personal home-service robot.

Vividly Warm: The Color Saturation Of Logos On Brands' Customer Sensitivity Judgment

Logo recognition helps link a company with its customers, when one associates a certain hue with a specific organization. However, Man Ding, Yu Cheng, Jinyong Zhang, and Guanyi Du point out that thinking about the

color should involve more than just choosing the hue. Choosing appropriate color saturation while keeping the well-known hue in the logo can help a brand refresh its image. For example, a company changed its lower saturated logo to a new higher saturated logo to “radiate more openness and clarity.” Their research exploring logo color saturation and its influence on brand image is reported in the article *Vividly warm: The color saturation of logos on brands' customer sensitivity judgment*. The four studies, which are part of the research project, investigate how the saturation of the logo affects the brand’s consumer sensitivity image through perceived closeness. But also, they observe that the brand image contains multiple aspects apart from consumer sensitivity, and in some brands, consumer sensitivity may be counterproductive.

The Effect of Decision Time-Length Condition on Consumer Product-Colour Purchase Decision

The last of these four articles focusing on consumers, *The effect of decision time-length condition on consumer product-colour purchase decision*, examines the relationship between the length of decision-time and to what extent the color factors affect consumers’ product-color decisions. Luwen Yu, Stephen Westland, Zhenhong Li, and Guobin Xiz used two online surveys and a laboratory experiment, and two evaluation methods (a forced multiple choice and ranking selection for observers). Their findings suggested that consumers’ individual color preferences may be more likely to influence consumers’ product-color purchase intentions when the consumer makes rapid decisions. When the consumer is considering a purchase for a longer (not hurried) time, they are more likely to choose colors appropriate for the product, its planned use and location, rather than selecting their personal favorite color.

Micro-CT Analysis of Enamel Structure after Different Bleaching Treatments

The next two articles are in the field of Dental Science applications. The sharing of electronic images of faces has increased the concerns of many people about the whiteness and beauty of their teeth. In the first article, *Micro-CT analysis of enamel structure after different bleaching treatments*, Eda Didem Yalcin, Derya Sürmelioglu, and Kaan Orhan report on their study of the effects of bleaching on the color of tooth enamel. In their study using real teeth, they evaluated the effects of three of the most

popularly used bleaching processes on the physical properties of the teeth. They found that all three methods successfully bleached teeth. However, the study demonstrated that statistically significant differences were found in the structural thickness, structural separation, mineral density and mineral volume of enamel of the teeth between the groups before and after bleaching.

Effect of Different Beverages on Color Stability and Surface Properties of Composite Resin Materials

Times come when there is damage to teeth either through injury or through physical or chemical effects of food and drinks in the mouth and the tooth needs to be repaired. Due to their mechanical and physical, and esthetic properties, dental composite materials have replaced older options as the preferred materials for the restoration of lost tooth tissue in dentistry. In their article, *Effect of different beverages on color stability and surface properties of composite resin materials*, Esra Özyurt and Aysegul Kurt report on their invitro study of beverages on the monomer conversion, color stability, and surface roughness changes in the composite materials caused by water, coffee, tea, and colas. Color stability and surface roughness value of direct dental composite materials differed from indirect dental composite materials after being immersed in different beverages. The tested beverages significantly influenced color stability.

Determination of Species of Some Wood Veneers Using Machine Vision

One of the handy uses of a computer is for digital image processing, which is performed in order to render the information in an image in a useful way. In general, image processing consists of three stages: (1) image enhancement, (2) image feature extraction, and (3) image feature classification. The last article, provides a practical example of how image processing can make production more efficient. In the article, *Determination of species of some wood veneers using machine vision*, Eser Sözen and Timuçin Bardak apply digital image processing to identify the type of tree used to make specific veneers. Comparisons show that their machine vision systems are more accurate and faster than the human designation of veneer types because in the machine vision system there is no room for human errors, feelings or fatigue. Advances in machine vision technology will make vision systems accurate, robust and cost effective.

A Blast from the Past:

ISCC Newsletters 50

**ISCC Newsletter No. 214 Annual Report Issue
September-October 1971**

Paula J. Alessi, Senior Color Scientist

This 15-page newsletter covered a potpourri of topics that should still be of interest to our members in 2021.

Geographical Survey of Membership Then and Now

In 1971, the ISCC Secretary, Fred W. Billmeyer, Jr. was responsible for ISCC Membership. In ISCC News No. 214, Billmeyer illustrated a geographical survey of membership within the United States while also keeping track of how many members we had from Canada and other foreign countries. Thanks to Rachel Schwen, our current ISCC Membership Chair, we can compare the 2021 ISCC geographic footprint to that reported by Billmeyer in 1971.

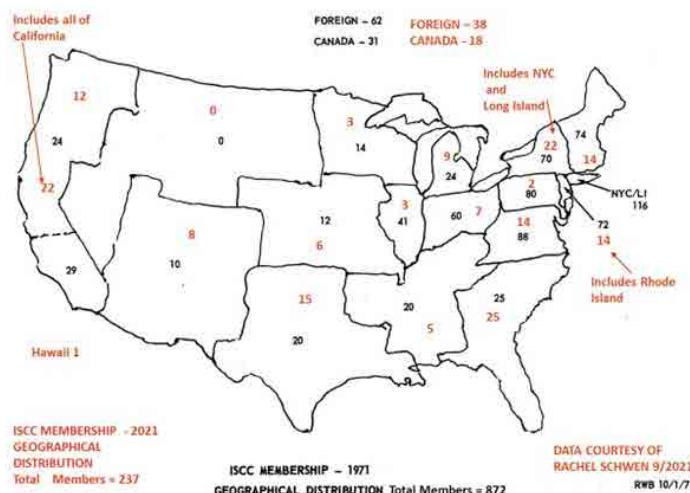


Figure 1: ISCC Geographical Distribution 1971 vs 2021

The total membership has decreased quite a bit in fifty years both nationally and internationally. Table 1 breaks down the differences even further.

Table 1: Regional Percentages – 1971 vs 2021

Region	1971	2021
New England and Mid Atlantic	57%	28%
North Central	17%	12%
Southeast	5%	13%
West Coast	6%	14%
Canada	3.5%	7.6%
Foreign	7%	16%

The largest portion of our membership comes from the New England and middle Atlantic states along the east coast of the United States as was true in 1971. We have picked up significant increases in representation from the Southeast and West Coast regions of the United States relative to the percentages in 1971. Furthermore, our Canadian and Foreign membership numbers have increased substantially relative to the percentages from 50 years ago. We should be proud of the fact that ISCC members cover more people across the greater U.S. with one member from Hawaii. We also have increased our presence around the world, including in our neighbor to the North!

Discovery: ISCC Color Information Bureau Became Cooper-Hewitt Museum Liaison Committee

In the 2019 ISCC News No. 486 Blast from the Past article, the history of the Color Information Bureau was discussed from its 1968 formation until the trail went cold in 1971. The ISCC News No. 214 provides the information needed to pick up the trail! The Museum Group was the largest of the six groups that comprised the Color Information Bureau. In fact, the Museum Group had “reached a magnitude warranting independent status.” So, at the fall 1971 Board meeting, the Directors approved formation of the Cooper-Hewitt Museum Liaison Committee to be headed by Christian Rohlfing, who was Chair of the Museum Group from the Color Information Bureau. The Directors also looked to the Color Information Bureau Chair, S. L. Davidson, to reassess the scope of the Bureau and recommend members to Rohlfing for his newly formed Standing Committee. Here are the details of the ISCC Cooper-Hewitt Museum Liaison Committee:

“Objective: To promote color education by collaborative association between the Inter-Society Color Council and the Cooper-Hewitt Museum of Decorative Arts and Design.

Scope:

- 1.** Solicit gifts to the Museum and its associated Library, of artistic, scientific, and industrial, objects and publications dealing with color, and through the contemplated data bank retrieval facilities of the Museum and other museums make these available to students of color and design.
- 2.** Solicit the help of ISCC member-body delegations, societies, and their industrial members for their guiding assistance to the Museum in order to demonstrate the role of color in their particular fields of interest.
- 3.** Solicit individuals and corporate entities for support and advice in demonstrating the real and potential relations of color to the problems of society.
- 4.** Promote the efforts of the Museum to provide for the study of color by assisting in the organization of educational study courses.”

The following note was made:

Note: “The Council promotes color education by its association with the Cooper-Hewitt Museum.”

Prior to this, the most predominant form of color education was the color courses that were offered by universities and corporations. This is the first time that ISCC made a commitment to a museum as a ripe color educational source for their membership! Members were instructed to gift items of past and present historical significance relating to the science and art of color to Christian Rohlfing for display at the Cooper-Hewitt Museum. No doubt these gems of history created a colorful body of knowledge and beauty for the Cooper-Hewitt Museum Liaison Committee to share with the world.

Color in Nature

The Field Museum of Natural History had an exceptional exhibit called Color in Nature. I found the April 1971 Bulletin published by the Field Museum to get more details on the exhibit as supplemental information to what was published in *ISCC News No. 214*. This topic was selected because Color, being one of the fundamental dimensions of nature, was also one of the Museum's most important dimensions.

The two ideas that guided the assemblage of the exhibit were the nature of learning and the art of design. The exhibit designers were driven by two methods for disseminating knowledge and executing design in 1971. First, knowledge was made up of relational systems and sub-systems with which people could interact. It was thought that learning occurs best when people assimilate pieces of information into patterns. Second, design was interpreted as a means to improve communication effectiveness and information flow. So, the goal of this Color in Nature exhibit was to make knowledge about our natural world concrete, accessible and understandable to everyone. The design featured a multi-dimensional flow with concrete demonstrations and only enough words necessary to explain the demos. The assemblage of the multi-discipline exhibit featured personnel from the Zoology, Botany, Minerals, Birds, Amphibians and Reptiles, Fish, Invertebrates, Mammals, and Insects departments. Figure 2 shows many of those who worked on the exhibit.

Figure 2:



Bob Martin,
Exhibit Designer

Kathleen Kuhlman,
Assistant Graphic Designer

Zbigniew T. Jastrzebski,
Exhibit Department
Illustrator

Three performance design standards were followed in development of the exhibit:

- “1. To provide visual interest to gain attention and start the viewer’s eye moving
2. To simplify visual representation and organization for speed in viewing, reading and understanding
3. To provide visual continuity for clarity in the sequence”

The three standards were met by dividing the work up among three-dimensional exhibit designers and one-dimensional graphic designers, who worked harmoniously together. The three-dimensional exhibit designers worked with space, structure, color and lighting. The one-dimensional graphic designers worked with color, topography and projected slide images. Then the specialized technical skills of illustrators, model makers, sculptors, taxidermists and audio-visual experts were called in for the finishing touches. Figure 3 shows some sample images from the exhibit.

Figure 3:



Bob Martin and student helper Dale Lehman install some larger specimens



A segment of the finished exhibit

This time-consuming exhibit was completed after 500 man-hours were logged by the scientific staff and 2000 man-hours by the exhibition department. The information-based design was successful and enjoyed by all! The Museum’s conclusion was that “design is expensive, but we know that it is necessary.”

Unfortunately, all the photos of this Color in Nature exhibit were displayed in black and white in the bulletin. Our imaginations can be used to fill in the colors of nature that must have graced this unusual exhibit!

Colorama: From Howard Ketcham's Color Notebook



Reproduced with permission of American Cyanamid Company, Dyes and Textile Chemical Department

Finally, here are two interesting color tidbits from the Color Notebooks of Howard Ketcham. Are they true or are they folklore? I was unable to find any research that supports either of these tidbits. If anyone is aware of such research, please contact me.

2021 Nickerson Service Award

Recipient Frank O'Donnell

Submitted by, Jerry Dimas

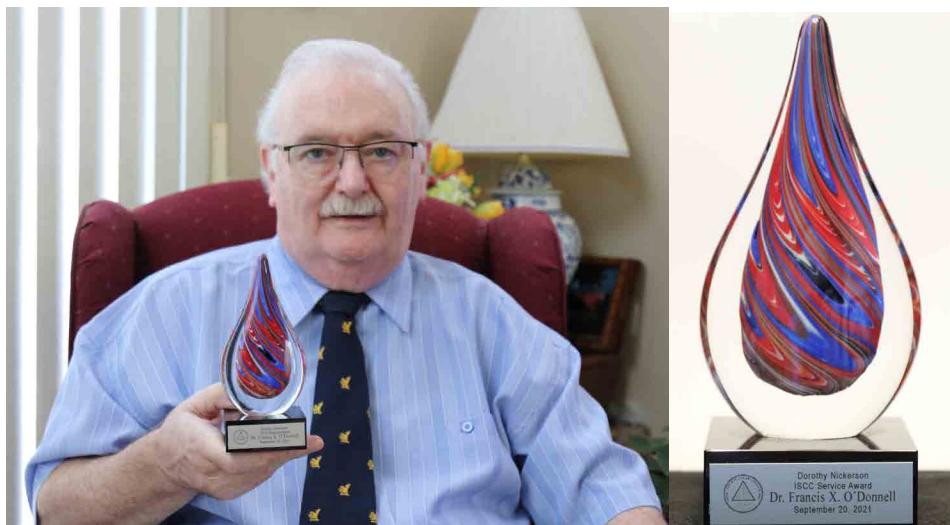
This is the speech that was given at the Virtual ISCC Annual Meeting on September 20, 2021 when this award was presented.

The Nickerson Service Award was established by the Board of Directors in 1980. The Nickerson Service Award is presented for outstanding, long-term contributions towards the advancement of the Council and its aims and purposes. This year we honor Dr. Frances O'Donnell with the Nickerson Service award.

Frank is the 29th recipient of the Nickerson Award, his application to join the ISCC was approved by the board at their meeting in April 1981.

During Frank's 40 years of ISCC membership he has served the council in a number of different capacities: Vice Chair and Chair of Interest Group 1, also on the Board of Directors from 2004-2007, then as the President Elect and ISCC's 29th President and most recently as Treasurer 2019-2020. I've known Frank for over 30 years, since his time at Sherwin's Research Center in Chicago. Frank has been a both a mentor and confidante to me. I'll forever be grateful for his teaching me how to make a proper cup of tea in a microwave!

It is with great pleasure that I present to you today the winner of the 2021 Nickerson Service Award,
Dr. Francis X. O'Donnell.



Call for Nominations for the 2021 Godlove Award

The Godlove Award was established by Mrs. Margaret N. Godlove in memory of her husband, Dr. I. H. Godlove. The fund was presented to and accepted by the ISCC during the 25th Anniversary Meeting of April 6, 1956. The award is usually, but not necessarily, presented biennially in odd numbered years. 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. 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. A candidate's contribution is to be considered in light of the objectives of the Council as defined in Article II of the Constitution. 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 of the ISCC. All candidates must have had at least five years of experience in their particular field of color.

The committee will begin considering the nominations in early November, so please notify Godlove Award Committee Chair of the name of your intended nominee as soon as possible. You can contact Ellen Carter, via text or phone, at 609-224-3261 or email Ellen.Carter@alum.rpi.edu.

Then submit the nomination form, which can be found at:
www.iscc-archive.org/UniversalNominationForm.pdf.

The completed form can be scanned and emailed to Ellen.Carter@alum.rpi.edu or printed and sent to: Dr. Ellen C. Carter, ISCC Godlove Award Chair, 2428 Crossing Way, Wayne, NJ 07470. We are coming to the end of 2021 quickly, so please submit your recommendation as soon as possible.

Note: Nominations received after the Committee has made their selection, late plus those not selected, will be retained for future Godlove Award consideration.



ISCC Annual Meeting

On September 20, 2021, we held our Annual Business Meeting. This meeting was virtual, and in addition to the usual reports, featured a keynote presentation by Bevil Conway. The fascinating keynote was titled *The Brain: the Artist's Medium*. About 70 people attended the keynote, and 30-40 remained after the break for the official annual meeting. We heard reports regarding:

- The financial state of the Council – by Treasurer Jerry Dimas
- Nomination for the Board of Directors – by Past-president Renzo Shamey, *ex officio* Chair of the nominations Committee.
(details elsewhere in this newsletter)
- Membership report – by Rachel Schwen, Chair of Membership Committee
- Four Activities and Project reports:
 - Webinars – by Ann Laidlaw
 - Color Literacy – by Maggie Maggio
 - Fluorescent Fridays – by Luanne Stovall
 - Visual Identity – by Ellen Divers

Jerry Dimas then read the citation for the Nickerson Service Award, which was presented to Frank O'Donnell. The full citation appears elsewhere in this newsletter. Finally, a short recap and presentation about future ISCC meetings was presented by Dave Wyble, President.

After opening the floor for comments, the meeting was officially closed. Many attendees moved over to a Zoom Social Hour, facilitated by Amy Woolf.

While we would prefer to meet in person, this meeting was well attended, with good participation from the membership. I wish all of you the best as we continue to work through the difficult health, social and economic conditions imposed by the pandemic. In spite of this, I am still very upbeat on the future of ISCC, and am confident that we will emerge a stronger organization.

Colorfully yours, and respectfully submitted,

Dave Wyble
ISCC President

Nominating Committee Report

We would like to express our sincere gratitude for the work and service of our colleagues: Dr. Danny Rich, Dr. Lina Cardenas, Ms. Amy Woolf and Ms. Luanne Stovall whose term of service on the Board of Directors of the Council comes to a conclusion at the end of December 2021. We wish them success and hope to have their continued support, counsel and assistance.

The nomination committee consisting of Kate Edwards, Danny Rich, Amy Woolf, Rachel Schwen, Maggie Maggio and Renzo Shamey (chair) considered several potential individuals as nominees for the Board of Directors elections and recommended the following individuals. The term of service is two years for officers.

In 30 days, the ballot will be sent as a link via email to all members capable of receiving it. Ballots shall be due on the following January 3. On January 24, the secretary shall report the results of the election to the Board of Directors. Please support the activities of the council by participating in the elections and let us know how best we can serve you. This serves as the report of the Nominating Committee to the membership.

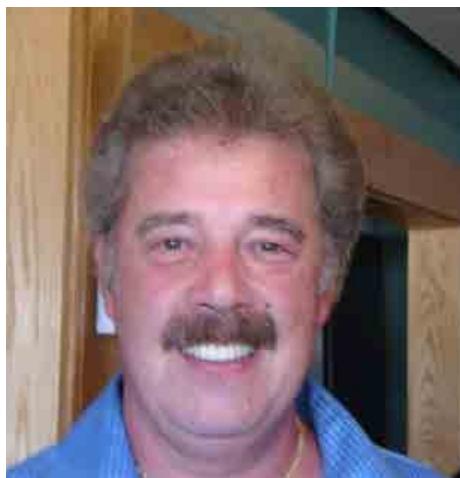
From the By-Laws

The report of the Nominating Committee shall be sent to all voting members at least thirty (30) days before the date on which ballots are provided to the voting members. Additional nominations may be made at the request of five (5) voting members, provided they are forwarded to the Secretary within twenty (20) days after the report of the Nominating Committee is sent out. The Secretary shall give notice of all additional nominations to all voting members at least ten (10) days before the ballot is provided to the membership at large.

Board of Director Candidates

We have an excellent slate of highly qualified candidates. This year we have five candidates for three open director positions. (Photos and biographies follow.)

Nick Lena



Nick Lena has degrees in both Engineering and Marketing. He joined GTI Graphic Technology, Inc. as Director of Color Technology in October 2011. In this role Nick oversees the LiteSupport Calibration and Re-certification Service Program and also provides technical and sales support for both the Graphic Arts, and Color and Appearance products. Nick joined GTI from Gamma Scientific where he was the Product Line Manager for Commercial Lighting, Military and Display Measurement.

He previously worked for Konica Minolta as Director of Technology and Business Unit Manager for Radiometric Products and Solutions. In this role, he was responsible for the technical support and marketing efforts for all spectrophotometers, spectroradiometer and colorimeter products.

Nick was also with GretagMacbeth for 20 years as Lighting and Radiometric Product Marketing Manager. At GretagMacbeth, he developed and taught over 300 seminars on topics including Fundamentals of Color and Appearance, Color Measurement and Light, and Light Measurement. He was the author of their still current course books, The Fundamentals of Color and Appearance, and has been the guest speaker for such organizations as Detroit Color Council, Color Marketing Group, Estee Lauder, Sikorsky, General Motors, Mattel, Disney, Honda, Jaguar, Boeing, Bayer, American Greeting, Microsoft, American Gem Trading Association, Frigidaire, Steelcase, The American Society of Appraisers and The American Association of Textile Chemists and Colorists.

He is an active committee member of the American Society of Testing Materials, (ASTM) Committee E12 on Color and Appearance and is the Chairman of the ASTM Subcommittee E12.11 on Visual Methods. Nick has recently been appointed to the Board of Directors of the Detroit Colour Council.

Nick has been a member of the Illuminating Engineering Society of North America (IES) since 1978, a member of the IES Committee on Color and has developed webinars on lighting measurement and the color metrics used for LEDs on the IES Education website. In addition, Nick was an active member of the ANSI / ISO TC42 standardization efforts on Visual Evaluation of Color and Uniformity in the Graphic Arts and participated in AATCC RA36 on Lighting Communications for Textiles and Apparel and was an advisor to the CIE (International Commission on Illumination) committee TC1-44 for Practical Daylight Sources for Colorimetry.

Karl Tylman



Karl Tylman is the Technical Director for the Duha Group, a fourth-generation family-owned business headquartered in Winnipeg, Canada; primarily focusing on the development and manufacture of color sampling and marketing tools for the architectural and decorative markets. He has over three decades of experience in color-related fields. In his current role, Karl oversees all aspects of color technology within the Duha Group where he supports the advancement and deployment of color management and reproduction technologies at the global level.

Prior to joining the Duha Group, he held color technology roles in textiles at Courtaulds Textiles and in graphic arts at Kromacorp Printing Ink Specialists. Karl has a diploma in Textile Technology from the Derbyshire College of Higher Education (now University of Derby) and an MSc in Color Application and Technology from the University of Leeds. Karl resides in the Winnipeg area with his wife, daughter and two dogs.

Anthony Calabria



Anthony Calabria is the Global Color Technology Manager for the Research and Development group at Axalta Coating Systems; he has been involved in Color Technology for the coatings industry for more than 15 years. In his current role, Anthony manages teams responsible for color data modeling, visualization, measurement, pigmentation and dispersion development. Since joining Axalta in 2014, he has been involved in Color Development, Color Formulation Systems, Data Management and Process Optimization for the automotive and industrial coatings businesses.

Prior to joining Axalta, he held Color Technology roles in architectural coatings at Benjamin Moore Paints, and graphic arts at Sun Chemical. Anthony has a BS in Imaging Science and an MS in Color Science from Rochester Institute of Technology.

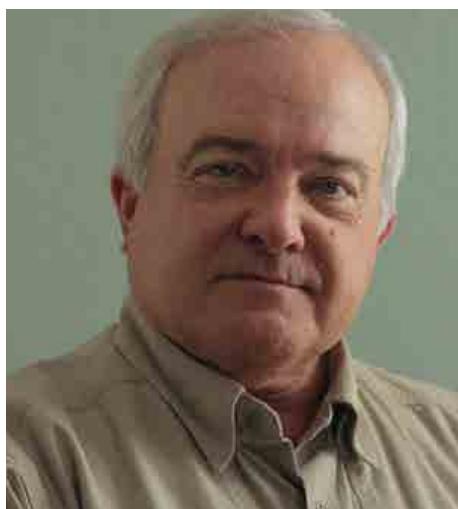
Karen Triedman



Karen Triedman has an AB from Brown in American Studies, an MA in Arts from SUNY/Albany; and an MFA in painting from the University of Chicago. She teaches Applied Color in the certificate programs at Rhode Island School of Design. Other color classes she has taught over the years have included color theory, color psychology, color for interior design and Gouache. She has worked as a consultant in the areas of visual marketing and color design for retail, commercial, institutional and residential sites.

She has written several books on color and design including: *Color - The Professional's Guide: Understanding, Appreciating and Mastering Color in Art and Design* and *Color Graphics: The Power of Color in Graphic Design*. She serves on the Board of Directors at the Rhode Island Museum of Science and Art (RIMOSA).

Robin Myers



Robin Myers has a wide range of experience in many fields involving color. His first big employer was Lawrence Livermore National Laboratory (LLNL) where he programmed during the day and spent nights making fine art Cibachrome prints. Leaving LLNL for Versatec, a Xerox company, in the mid-1980s, he was the color engineer for the first wide-format electrostatic color printer. While there he patented an algorithm for color matching. He also represented Versatec on ANSI and CGA standards committees.

After moving to Apple in the late 1980s, he invented the algorithm which became the basis of the first Macintosh color matching system, ColorSync. While there, he also received three other patents for color matching technologies related to color printing. In the mid-1990s he represented Apple on the board for the Open Systems Color Association (OSCA). From 2000-2010 he worked at Better Light, the digital scanning camera company, where he developed methods for color accurate imaging of artworks. He holds a BS in Chemistry with several publications in chemical syntheses and the history of chemistry. Current work involves manufacturing high color quality LED lighting and color targets for cultural heritage imaging, as well as producing software for spectral capture and analysis. His pet project is the development of a publicly available spectral database.

Fluorescent Fridays

Building an International Student Chapter



FREE!

Attention color-curious students!
Be part of a new series exploring
the interdisciplinary nature of color.

FLUORESCENT FRIDAYS is a platform for university students from all disciplines to network with color professionals and fellow students, and to explore cutting-edge information about color's role in our lives and applications in the world.

Global Student Chapter: The long range goal is to build a global student chapter that positions color as a multidimensional STEAM model (Science, Technology, Engineering, Arts, Math), sharing up-to-date color research by scientists, artists, designers, industry professionals, and university students. 21st century color communication requires a commitment to building bridges for sharing resources, cultivating mentors, and creating new opportunities. With up-to-date information and useful tools, students become the next generation of leaders in ever-evolving color related disciplines.

Color in Context for Architects & Designers

What: Following Juan Serra Lluch's Color for Architects book, university students from architecture and industrial design respond to real life cases with companies and institutions, and create a chromatic response to the challenge. Designing with color in context implies understanding the physical features of a space in concert with specific artistic, cultural, and social criteria.

When: Friday, October 29, 2021, 3:00pm - 4:00pm EST

Who:

Juan Serra, School of Architecture (ETSA), Universitat Politècnica de València (UPV)

Irene de la Torre, ETSA, UPV

Patricia de Frutos, Marina Valle, and Pepe Sánchez-Malo, students Master of Advanced Architecture, UPV

Paula Ballesteros Cavero, student Master of Design Engineering, UPV

Visual Identity Project (VIP)

Last year, the ISCC launched a student design competition, known as the Visual Identity Project (VIP), to replace its current logo with an updated graphic identity. The new logo will support efforts to reach out to the diverse audiences that the ISCC serves. This graphic identity includes both a new logo (graphic identifier) and graphic elements (color palettes) that will give the ISCC a cohesive presence on social media and other platforms.

As of the start of the Fall semester, the VIP is officially in the hands of design students who are applying their creative talents toward developing a graphic identity that reflects who the ISCC is and what it does.

The project due date is December 1, 2021 when the students will deliver to the judges both the graphic they created and a presentation that explains the reasoning behind the final design. The panel of judges will narrow down the candidates and choose the winner by the end of January. Presentations will be available for members interested in taking a closer look at the design process. Stay tuned!

The graphic features a dark grey background with white text. At the top, the words "Where's the COLOR?" are written in a large, bold, sans-serif font. Below this, there is a small logo consisting of a square containing a stylized 'V' and 'I' shape, with the text "VIP" and "VISUAL IDENTITY PROJECT" underneath. Further down, the text "Student Design Competition" is visible. In the center, there is a list of prize amounts: "First prize \$750 USD", "Second prize \$350 USD", and "Third prize \$150 USD". At the bottom, the text "Student DESIGN Competition" is repeated in a smaller font.

International panel of judges

- Elio Carmi (Milan, Italy)
- Marianne Rosner Klimchuck
- Jodi Baker
- Dr. Renzo Shamey
- Antonella Porfido

Submission Deadline: December 1, 2021

Final Decision: January 2022

Recorded presentation by finalists will be available to ISCC members!

iscc.org/events/VIP

Calendar 2021 - 2022

2021	
Nov 1-4	IST CIC29 29th Color and Imaging Conference https://www.imaging.org/
Nov 1-5	OPTICA Quantum Information and Measurement VI Virtual https://www.osa.org/en-us/meetings/topical_meetings/quantum_information_and_measurement_vi/
Nov 3-4	CMG VIRTUAL SUMMIT https://colormarketing.org/event/2021-virtual-international-summit/
Nov 7	Los Angeles GIA Alumni Chapter Oceanview Mine Trip Pala, CA https://www.gia.edu/alumni-event-los-angeles-oceanview-mine-trip
Nov 8	OPTICA Webinar Digitizing Optical Product Manufacturing Tracability: The What, Why & AI https://www.osa.org/meetings/
Nov 10-11 Virtual Day: Nov 12	NYSCC Supplier's Day, New York, NY https://nyscc.org/suppliers-day/
Nov 12-13	SCAD 2021 Conference http://www.scadent.org/events/chicago-2021
Nov 15-16	Joint CIE-USNC, CORM, CIE-CNC Annual Meeting Virtual https://cormusa.org/corm-2021-presentations-2
Nov 16	AATCC International Conference Textile Discovery Summit Durham, NC https://aatcc.org/aatcc-events/textile-discovery-summit/
Dec 8-9	AATCC Printing United Alliance Digital Textile Printing Conference Durham, NC https://aatcc.org/aatcc-events/printing2021/
Dec 09	ASTM Retroflection December 2021 Committee Week E12 Meeting Atlanta, GA

2022	
Jan 7	Abstract Submission Deadline AIC Midterm meeting Sensing Colour https://www.aic2022.org/authors/call-for-papers/
Jan 26	ASTM Color and Appearance E12 meeting VIRTUAL https://www.astm.org/MEETINGS/filtrexx40.cgi?+-P+MAINCOMM+E12+futuremeetings_maincomm.frm
March 15	ICC HDR Experts' Day Munich, Germany https://www.color.org/events/HDR_experts.xalter
June 13-16	AIC Midterm Meeting Sensing Colour Toronto, CANADA https://www.aic2022.org

Sustaining Members

Sustaining members of the ISCC are organizations who support the mission and goals of the ISCC through financial or other support. With our member bodies, Sustaining Members also provide a critical connection to the color community. If you feel your company or organization should support the ISCC in this way, please contact the office for more information about member benefits.

datacolor



Datacolor

5 Princess Rd

Lawrenceville, NJ 08648

Website: <https://www.datacolor.com/>

Contact: Mike Brill

Email: MBrill@datacolor.com

Avian Technologies LLC

P.O. Box 716

Sunapee, NH 03254

Website: <https://aviantechologies.com>

Contact: Art Springsteen

Email: arts@aviantechologies.com



Radiant Vision Systems LLC

18640 NE 67th Court

Redmond, WA 98052-6728

Website: www.RadiantVisionSystems.com

Contact: Shaina Warner

Email: info@radiantv.com

ISCC would like to thank the following people for volunteering their time and talents to make this issue.

ISCC Newsletter Issue #496, Autumn 2021

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Quarterly Newsletter

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