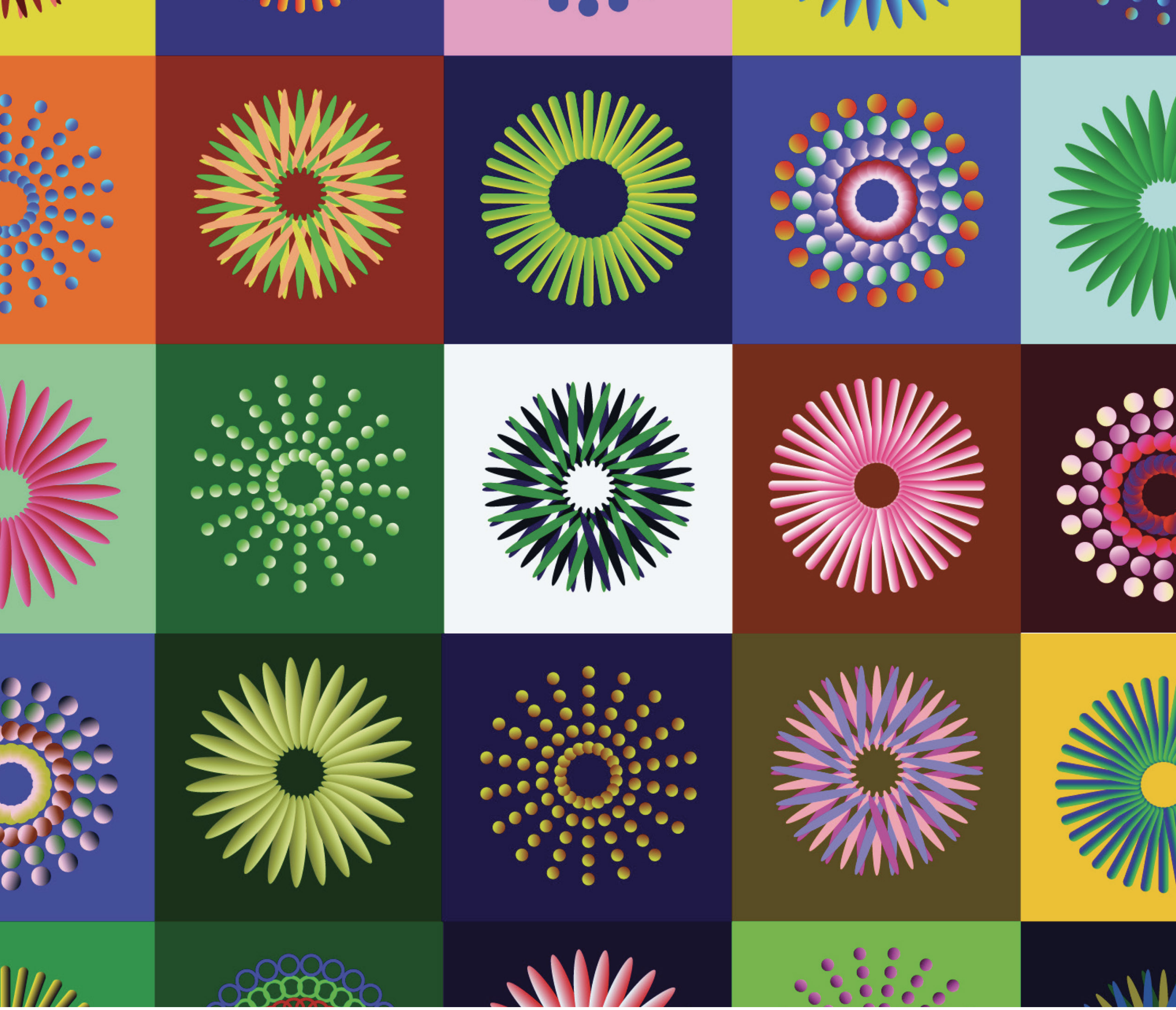

Inter - Society Color Council

Quarterly Newsletter

Fall 2024
Issue #508

email: isccoffice@iscc.org
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Washington, DC 20002

Credits: Yash Sindha
Radiant Patterns for Diwali

Directors Corner

Robin Kingsburgh

Hello ISCC members! I am Robin Kingsburgh, and I was elected to the Board of Directors earlier this year. I am a Canadian (and very happy to be part of the US-based ISCC!) and spend my time between Toronto and the shores of Lake Huron at Sauble Beach. My background encompasses science and art, and colour is the place where it all meets! My interest in science, particularly astronomy, began as a teenager, after observing the Perseid meteor shower in the dark skies over Lake Huron. Around the same time, my interest in art was sparked by a class visit to the Art Gallery of Ontario, where we sat in front of a Mark Rothko painting and listened to a docent speak about the artist's process. While being present with No. 1, White and Red for an extended period of time, and finding out how Rothko used those wide fields of colour to symbolize earth and sky, I had one of those "aha" moments with a deep visceral response to how colour could make you feel. Hooked on both science and art, I continued my multidisciplinary journey studying astronomy, physics and fine art as an undergraduate at the University of Toronto. There, during one of the first life-drawing classes, my professor asked me if I was a Fauve – and following the vivid colour use of Matisse and the wild beasts. I had never heard of the Fauves until then. This remark launched my

Robin Kingsburgh

deep dive into colour. I continued my scientific studies at University College London and received a Ph.D. in 1992 in Astronomy. My research focus was spectroscopic studies of planetary nebulae – beautiful, ethereal endpoints to the lives of some stars. I also continued with painting and drawing, and took evening classes at the Slade School of Fine Art. Interwoven threads of science and art – to which education was also added – have been a constant presence throughout most of my life. I began my career first in research, doing a postdoc at the University of Mexico in Baja California, and then upon returning to York University in Toronto, my focus switched to teaching.

I am quite interested in those seemingly innocuous moments, which later turn out to be pivotal in one's life. (Perhaps you have seen the Connections series by James Burke...) One such moment for me was having a coffee with the Chair of my department. He was a physicist, and his wife was a painter. Our conversation quickly turned to the similarities and interconnections between science and art – and how it would be great to develop a course on colour, where students could study both. He encouraged me to create such a course, and so Understanding Colour was born, just before my second son (!) in 2000. Initially, with 50 students, we could spend some class time in the fine art studios, but as interest in the course heightened, class size soon grew to over 100. Today it stands at 250, with several additional sections being taught by my former TAs and students. It has become an extremely popular general education course for non-science students at York University. Colour is positioned as an ideal bridge between disciplines.

Another innocuous but pivotal moment occurred with a chance conversation in my kids' schoolyard, where I found out that OCAD University, the largest and most comprehensive art, design and media university in Canada, was offering science classes. Teaching science at an art college – how perfect! There I taught the Science of Colour to artists and designers for 12 years, and I began organizing exhibitions of artworks inspired by science. During that timeframe, the Colour Research Society of Canada (CRSC) was formed as an AIC-member group. Initially we were a small group of OCAD colleagues and alumni but quickly expanded into a cross-Canada network of colour practitioners and enthusiasts. Then at OCAD, Doreen Balabanoff became our president for over 10 years. Doreen was contacted by Maggie Maggio about whether she or anyone she knew would be interested in becoming part of a colour education group. Doreen passed my name to Maggie, and that group became the Colour Literacy Project (CLP). I am very grateful for that connection and feel very privileged to be part of this collaboration with such esteemed colour colleagues. Not only have I been given the opportunity to become more deeply connected to the colour-world, but I have learned a great deal along the way! As a 21st century educational initiative that recognizes colour as a meta-discipline, the CLP aims to strengthen the bridges between the sciences, arts, design, and humanities to meet the challenges and opportunities of the 21st century. We have recently updated our website (https://colourliteracy.org/) and are currently connecting with postsecondary institutions worldwide to further test and refine our curriculum. We are working toward establishing a universal colour foundation for all. From that foundation, discipline-specific colour knowledge subsequently can be built.

I am very happy to weave these threads which have such significance to me – science, art and education – together as a member of the ISCC Board. I have been working with Karen Triedman and the planning committee on Color Shifts, the online exhibition for Color Impact 2025. I bring my experiences of organizing numerous exhibitions and conferences, including Sensing Colour, the AIC 2022 Midterm Meeting. As current president of the CRSC, I look forward to forging stronger connections between the CRSC and ISCC. Both organizations have a strong interest in supporting students, and in promoting colour education for all.

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ISCC EXECUTIVE OFFICERS

Terms end 2024	**President**	Ms. Maggie Maggio Smashing Color maggiemaggio@gmail.com
Terms end 2024	**President Elect**	Dr. Jennifer (Jen) Kruschwitz Assistant Professor University of Rochester, Institute of Optics jennifer.kruschwitz@rochester.edu
Terms end 2024	**Secretary**	Ms. Amy Woolf Amy Woolf Color Consulting, LLC amy@awcolor.com
Terms end 2024	**Treasurer**	Mr. Jerald Dimas Color Communications, Inc. 4000 W. Filmore Street Chicago, IL 60624 USA +1 (773)-475-2575 jerdim@ccicolor.com
Terms end 2024	**Past President**	Dr David R Wyble Avian Rochester, LLC PO Box 1210 Webster NY 14580 dave@avianrochester.com

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Terms end 2026	**Justin Laird**	Senior Color Engineer Apple, Inc. +1-408-896-4400 One Apple Park Way, 925-1MD2 Cupertino, CA 95014

A Blast from the Past: ISCC Newsletters 50 Years Ago

The Final Column

Paula J. Alessi

It is with a bit of melancholy that I inform my dear ISCC colleagues that this will be my final "A Blast from the Past" column. Rather than discuss a newsletter from 50 years ago, this column will focus on how this column got started 10 years ago, my reflections and what its future might be.

How this Column Got Started

I became editor of the ISCC Newsletter in the summer of 2013. Cameron Miller from the National Institute of Standards and Technology (NIST) was the ISCC treasurer. He wrote the Board of Directors column in the ISCC News No. 467. That article moved me in such a way that I felt compelled to start "A Blast from the Past" column in the next issue. It is best to share Cameron's words with you in order to understand why.

> As many of you are aware, the ISCC has become a virtual organization. Many people have asked what happened to the non-virtual part (the office and all of its historical content). As part of my duties, along with Maria Nadal (a past-president of the ISCC), we were in charge of bringing all of the contents of the office located at HunterLab in Reston, Virginia to NIST. Once again, we would like to thank HunterLab for housing the office for so many years. At NIST, Maria and I began organizing the boxes of ISCC records to minimize the storage footprint, including scanning many documents to create electronic versions in order to eliminate the paper copies. A benefit of scanning many of the documents is that they can be posted to the website for members to review and look through what really is the history of our organization. All of the Newsletters have been scanned and are uploaded to the website storage.

Digitizing all of these hardcopy newsletters was no small task, especially considering that the newsletters go back to 1933 and were issued annually with a minimum number of 4 per year and 6 per year when warranted! Let's hear more from Cameron.

> As we were scanning the documents, it was kind of magical to read through the Newsletters. The Newsletters represent a primary source that chronicle the development of modern colorimetry as we use it today. I hope you will take advantage of downloading a past Newsletter once in a while and reading the developments taking place at that time in history.
> I have been asked what is the role of the ISCC? The ISCC has always been a source of information about what is happening in the broad area of color. In the past, it was a focal point of tidbits that would lead the average reader to articles expanding upon a newly developing area or concept. With the development of the internet and search engines, some members have been wondering if the ISCC has been replaced by automated technology. What we are finding out is that the internet is a vast sea of information and we need knowledgeable individuals (instead of search engines) to help sort the valuable information. The Newsletter is a place where members can once again be directed to the most valuable information, but it requires the membership to make contributions guiding the other members to this information.
> I reiterate. As members of our Council, please contribute technical, administrative, and creative ideas to help shape the future of the ISCC, whether it is through the Newsletter, volunteering to serve in a leadership position, or participating in our fall teleconference meeting. The future of the ISCC is in our hands.

The amount of work that Cameron and Maria did to propel ISCC into the digital age was staggering. They did it willingly and voluntarily because they were dedicated to seeing ISCC stay current and relevant so that it could remain the premier national color organization. Cameron and I talked before he wrote this column because he was not sure how well it would be received. I encouraged him to go ahead with it and our readers appreciated his candor. I was so inspired by Cameron's words that I decided to start my column called "A Blast from the Past." This column was going to be my way of making sure that our readers would get a glimpse of the treasure chest of historical information that our past Newsletters provided. Of course, I was hoping that this column would entice our readers to recall our Newsletter archive and turn to it to perhaps help address some challenges they were encountering in their everyday color work.

My Reflections

Throughout the years, my goal in writing this column has been to find the nuggets from the treasure chest of past Newsletters and share them with our readers. I did not want to simply repeat each article word for word. Instead, my goal was to summarize the most interesting historical tidbits with comments on how those tidbits related to color as we know it today. The fascinating discovery that I made was the truth in the old adage, "History repeats itself." Whenever I encountered this repetition, I pointed out the similarities between how color was handled 50 years ago and how things evolved to where we are today. History did not always repeat itself exactly. Often, I discovered some key differences based on technological advances in the 21st century. Our readers appreciated the historical similarities that reinforced many fundamental color principles. They also appreciated the differences between color practices 50 years ago and the exciting technological advances that have helped us improve state-of-the-art color technology today. It has been refreshing to see that glimpses of the past can make us appreciate where we are in the present.

How sad that a color organization like ISCC was not able to publish newsletters in color 50 years ago. It wasn't until 1973 that the first color photographs were incorporated in the ISCC Newsletters. Even then, they were printed separately on graphic arts printing equipment and sent out as hardcopy color prints with each black and white Newsletter. So, to support the historical Newsletter articles from 50 years ago, I tried to find relevant historical color images to make those articles come alive. Our readers enjoyed the addition of color to the 50-year-old articles because it enhanced the experience of reading the historical gems.

What The Future of This Column Might Be

I feel just as passionate about the worth of the ISCC newsletter archive as my dear colleague Cameron Miller did in 2014. There is a treasure trove of color history that we can learn from in this archive. There is no need to wait for an article to be published in our newsletter. If you are curious about historical color information, go straight to our archive at iscc.org under the Resources tab and click on Quarterly Publication (https://iscc.org/quarterly). You can search on any string to get the information you seek. You will be pleasantly surprised by what you will find.
I will leave you with these thoughts. If the **present** path is not clear, look to the **past** for guidance! The **past** can also hold the key to discovering **future** directions!

You hold the key to unlock the treasure chest containing the valuable ISCC Newsletter archive. I hope that reading this final column will encourage you to do so!

Summary of AIC 2024 Midterm Meeting

Paula J. Alessi

The AIC 2024 Midterm Meeting was held September 16 to 19 in São Paulo, Brazil. The main theme of the conference was Color Design, Communication and Marketing. It was hosted by ProCor, the Brazilian Color Association in partnership with ESPM University. This Midterm Meeting was a huge success enjoyed by 172 participants.

The conference received 119 abstract submissions from 20 countries. A total of 228 reviews were conducted by members of the Scientific Committee comprising over 60 colour experts from around the world. The Scientific Committee members generously offered their valuable time as volunteers to support this critical task. Upon completion of full paper submission and registration processes, the conference featured 88 papers, 70 oral and 18 poster papers. There were 21 AIC Student Paper Award entries. There were 18 entries from The Colour Group of Great Britain for the Robert W. G. Hunt International Poster Award.

Here is a breakdown by country of the authors who contributed papers:

Country	Contributing Authors
Argentina	1
Australia	1
Brazil	42
Chile	1
China	7
Finland	1
Germany	1
Hungary	1
Israel	1
Italy	5
Japan	6
Portugal	4
Russia	1
Spain	3
Sweden	1
Switzerland	1
Taiwan	1
Thailand	1
UK	1
USA	8

The oral and poster paper presentations in the Technical Program were organized into 14 topics:

- Colour in Branding and Marketing,
- Colour and Consumer Behaviour,
- Colour in Design and Visual Communication (all forms of Design),
- Colour and Consumer Products,
- Industrial Colour Application (Cosmetics, Paints, Textiles among others),
- Colour in Interior Design and Architecture,
- Colour Semantics and Semiotics,
- Colour and Psychology,
- Colour and Physiology,
- Colour and Physics,
- Colorimetry and Colour Control and Colour Order Systems,
- Colour Education,
- Colour in Art, Culture, and History,
- Colour in Toys and Games.

The Technical Program also featured a total of nine keynote speakers headlining three days of Plenary Sessions. The AIC Study Group meetings were on Tuesday evening. The plenary sessions were:

- Color Strategy in the Age of Artificial Intelligence, by Prof. Ph.D. Anat Lechner, Professor of Business Management, Stern School of Business, NYU
- The Crossover Colors: Utilizing Nature's Most Abundant and Versatile Hues in All Areas of Design, by Leatrice Eiseman, Executive Director, Pantone Color Institute
- Color Trends for 2025, by Patricia Fecci, Marketing Manager, Sherwin Williams
- S/S 26 Key Colours and Colour of the Year 2026, by Urangoo, Head of Colour WGSN London
- Natural Pigments from the Brazilian Rainforest, by Designer Ciça Costa Founder Laboratório Cores da Floresta

- Ecology of Color in Urban Environment, by Prof. Ph.D. Larissa Noury, Professor of Color in Art and Architecture, ITECOM Art&Design Paris, President-founder "Colour-Space-Culture/ Couleur-Espace-Culture » France, Centre Français de la Couleur
- Chromatic Design Cases, Polar Design Studio,
- LAD Awarded as Best Design Studio in Brazil, Former Design ESPM Students
- Colour Design for a Sustainable Future, by Dr. Ingrid Calvo Ivanovic, Professor, Design Department, Universidad de Chile

The following AIC Study Groups met on Tuesday evening, September 17:

- Colour Education
- Art and Design
- Environmental Colour Design
- Games and Toys

The Conference also featured two workshops:

- Watercolor Painting of Brazilian Plants and Landscapes, given by the Brazilian Watercolor Association
- Amazon Pigments, given by Laboratorio de Cores da Foresta

ISCC extends many thanks to Paula Csillag, a Conference Chair for the AIC 2024 Midterm Meeting, for providing the details of this summary report.

2024 Annual Meeting Report

Maggie Maggio

The ISCC Annual Meeting was held on Saturday October 19, 2024, from 3:00 to 4:30 p.m. EDT. The virtual meeting was open to members and to the public on Zoom. Hosted by ISCC President Maggie Maggio, the meeting included this year's award presentations and a Colorful Connections social hour at the end of the meeting.

Award Presentations

The 2024 Macbeth Award was awarded to Dr. Leslie Harrington and Professor Anat Lechner for their pioneering work on HueData. See the Macbeth Award Citation in this issue.

The 2024 Nickerson Service Award was awarded to Rachel Schwen. See the Nickerson Award Citation in this issue.

Following the award ceremonies, Maggie shared a few slides inviting attendees to the upcoming ISCC events before starting the board meeting.

Board Meeting

After verifying a quorum, Jerry Dimas gave the Treasurer's report and Rachel Schwen gave the Membership Report.

Treasurer's Report – Total Assets: $93,974.94

Membership Report – Total Members: 210

The special agenda for the annual meeting included updates from two ISCC Projects:
The joint ISCC/AIC Colour Literacy Project and the ISCC Visual Identity Project.

Colour Literacy Project (CLP)

As co-chair of the CLP, Maggie Maggio shared the project's mission statement, tenets and cornerstones, and took attendees on a guided walk-through of the new CLP teacher resource website.

During the first phase of the project, the core team worked with partner schools to develop and test state-of-the-art resource materials for teaching color. The first editions of all the materials are now available to the public on the Color Literacy website at https://colourliteracy.org/ website.

In addition to developing curricular materials, the CLP hosted ten Colour Literacy Forums during the first phase of the project, and contributed 12 articles to Volume #33, a special issue of JAIC, the Journal of the International Colour Association.

The ISCC board approved funding for the second phase of the Colour Literacy Project in August 2024 and the CLP concluded the first phase of the project in September 2024 with presentations at the AIC interim conference in Sao Paulo, Brazil.

The second phase of the project extends the development of teacher resources for two more years with the emphasis on continued testing of the website. The second phase will also include regularly scheduled CLP orientations for teachers and focus on documentation of the pedological research needed for grant applications.
(See note at the end for additional stuff to include if there is room. It would be good to have the first phase CLP Mission Statement, Tenants and Cornerstones documented in the Quarterly as part of the official archive.)

Visual Identity Project (VIP)

Ellen Divers, chair of the Visual Identity Project, reviewed the history of the VIP over the past four years and then presented slides with results of a feedback survey sent to all ISCC members and contacts prior to the Annual Meeting.

The survey had a total of 61 responses. Members represented 74% of the total.
Over 50% visit the ISCC website monthly.

Close to 90% visit the site to find out about events, 50% to access the Quarterly newsletter and 36% to access event recordings.

The recent updates to the website were favorable. There were few responses concerning navigation issues.

When asked "Is there additional content you would like to see featured on the website?" several respondents asked for reprints of articles from the ISCC Quarterly News.

When asked "Are you open to sharing your profile information, as long as it is with members only?' 95% of members responded 'Yes' and provided input about including additional categories and areas of interest on the profile.

Ellen concluded the VIP update with an enthusiastic invitation to members to submit profile information to the website.

Colorful Connections

The annual meeting was immediately followed by a special edition of Colorful Connections hosted by Amy Woolf from 4:30 to 5:30 PM EDT. The participants who stayed on the Zoom enjoyed meeting each other and socializing in three consecutive breakout sessions.

Color Literacy Project Details

The Colour Literacy Project Mission Statement
The Colour Literacy Project is a 21st century educational initiative that recognizes colour as a meta-discipline. Our mission is to strengthen the bridges between the sciences, arts, design and humanities to meet the challenges and opportunities of the 21st century.

We are developing color education materials to provide foundational, state-of-the-art resources for teachers at all education levels focused on ***expanding and exploring our experience of color.***

Color Literacy Tenets

The Color Literacy Project's approach to color is based on the best available peer-reviewed research on color. The following tenets describe our understanding of the fundamental facts about color. They are what we support and believe to be useful as of now, but we remain open to new findings.

1. Color is a highly complex and multi-faceted topic. Research is ongoing and? *Knowledge is expanding*, but it is not likely that knowledge about color will ever be complete.
2. What colors are, whether they are properties of substances or light, manifestations of radiant xenergy, pure subjective experiences, or results of interactions between the perceiving subject and any of the above is a matter of ongoing scientific and philosophical debate. In any account it must be recognized that colors are, ultimately, a *visual phenomenon*.
3. The perception of colors involves *adaptation* to the environment and its visual stimuli.
4. Colors are perceived in all natural conditions of viewing in either a spatial or a temporal *contrast* to other colors.
5. The *experience* of colors involves psychological and cultural

factors, such as emotions, expectations and memory, as well as artistic and aesthetic evaluations.

6. Understanding color requires first-hand *exploration*. Theoretical knowledge is helpful in explaining color and color phenomena, but a deeper understanding of color requires the direct experience of perceiving, judging, comparing, using and appreciating colors and color phenomena.

Colour Literacy Cornerstones

At the heart of the project is a new, foundational, 21st Century Color Curriculum based on hands-on exploration of the Color Literacy Cornerstones:

- **Experiencing Colors** - Exercises that build awareness of the wonder of color all around us.
- **Describing Colors** - Exercises that expand color language beyond 2D hue circles to 3D color models.
- **Perceiving Colors** - Exercises that explore the elements of color perception.
- **Working with Colors** - Exercises that focus on comparing the use of color across disciplines.

Colour Literacy Forum

Luanne Stovall

COLOUR LITERACY FORUM
CONNECT - INNOVATE - EDUCATE

The **Colour Literacy Forum** is a virtual platform featuring presentations and interactive conversations focused on updating and expanding 21st century color education at the university level. The Forum is an international, collaborative effort of the joint ISCC/AIC Colour Literacy Project and Cumulus (see https://cumulusassociation.org/), the leading global association of art and design research.

The goal of this global collaboration is to align higher level color education with current design needs in the culture and develop an interdisciplinary STEAM (Science, Technology, Engineering, Arts, Math) model that aligns color education with current needs in the culture, provides cutting-edge resources, and offers dynamic networking opportunities for all stakeholders. For more information, see https://colourliteracy.org/colour-literacy-forum.

Upcoming Forums (Save the Date)

Colour Literacy Forum #9

Colour Through Time: Histories, Meanings, Practices
Colour in Context Series - Part 3
Friday, November 8, 11 am - 12:30 pm EST (via Zoom)

Talk 1: Werner's Nomenclature of Colours

Patrick Baty, author of *The Anatomy of Colour, Nature's Palette*

Talk 2: Lapis Lazuli and Some Meanings of a Blue

Spike Bucklow, author of *The Alchemy of Paint, Red, The Art Beneath*

Talk 3: Why History Matters in Colour Education and Practice in Post-Compulsory HE (Higher Education)

Judith Mottram is currently working on the *Blackwell Companion to Colour*

Colour Literacy Forum #10

Colour in Modern & Contemporary Cultural Contexts (working title) Colour in Context Series - Part 4
Friday, December 6, 11 am - 12:30 pm EST (via Zoom)

Spike Bucklow

Patrick Baty

Judith Mottram

Speakers:

Alexandra Loske, art historian, writer and curator with a particular interest in the history of color in Western art, print culture and architecture.

Carolyn Purnell, historian, author of Blue Jeans and The Sensational Past: How the Enlightenment Changed the Way We Use Our Senses.

Dominique Grisard, historian and author, is completing her book-length project “Pink” which weaves a history of gender, sexuality, and whiteness through and around the color pink.

Summary of Past Events

Forum #8 is availavble on YouTube at:
https://www.youtube.com/watch?v=ehehUQjnp6c&ab_channel=ColourLiteracyProject

2024 ISCC Macbeth Award Citation

The 2024 ISCC Macbeth Service Award was presented to Dr. Leslie Harrington and Professor Anat Lechner at the October 19, 2024 Annual Meeting. The following citation was presented by Paula J. Alessi.

The Inter-Society Color Council Macbeth Award is given for one or more recent outstanding contributions in the field of color. I am proud to announce that the recipients of the 2024 ISCC Macbeth Award are Dr. Leslie Harrington and Professor Anat Lechner, Co-Founders of Huedata Inc., a color intelligence company. These remarkable visionaries are revolutionizing the way color decisions are being made using advanced analytics and artificial intelligence.

First let's learn a bit about their background.

Dr. Leslie Harrington has a Ph.D., an MBA from the NYU Stern School of Business and a B.A. in Interior Design. She has held various senior management positions and has consulted in industries such as cosmetics, pharmaceuticals, durable goods, consumer goods, and technology industries in the areas of color strategy and color marketing. She serves as Executive Director of The Color Association of the United States specializing in studying color trends. She is a professional member of the American Society of Interior Designers (ASID). Dr. Harrington was on the Executive Committee of the ISCC Board of Directors, the Color Marketing Group, and is the Immediate Past President of AIC.

Anat Lechner obtained her Ph.D. and MBA degrees from Rutgers University School of Management. She also has an MBA degree from Tel Aviv University Recanati School of Business and a B.Sc. from Tel Aviv University. She is a full professor of Business at the Stern School of Business, New York University, where she focuses on industry disruption, innovation and strategic change. A former researcher at McKinsey & Co., Professor Lechner has advised global Fortune 100 firms in the financial services, pharmaceuticals, chemicals, energy, food, technology design and retail industries. She has numerous appearances in the New York Times, Wall Street Journal, Forbes, British Broadcasting Corporation, and other premier global outlets.

Now let's focus on the prescient work that Professor Lechner and Dr. Harrington have done

Professor Anat Lechner (left) and Dr. Leslie Harrington (right) proudly displaying their Macbeth Awards

for over a decade that is being recognized as deserving of the ISCC Macbeth Award.

Together, Lechner and Harrington formed a color intelligence company known as Huedata, Inc. This revolutionary company is the first color intelligence platform that offers color data analytics and insights to inspire creativity, inform strategic decisions, and validate design choices of products, brands and environments, globally.

They have accomplished this by digitizing color across multiple commercial and non-commercial applications. The data are then structured using proprietary algorithms and visualized to best inform, inspire and validate color decisions.

The ISCC Macbeth Award recognizes the pioneering effort of Huedata, the breadth, scope, and robustness of the platform, and its overall foundational impact on the field of color. The sheer amount of accumulated color data analytics (i.e., currently more than 35 million color data points) serve as evidence of the comprehensive nature of the platform and the unique strategic value that it provides. As an example, Huedata holds over 1 million color data points representing more than 30 years of color use in fashion worldwide, across cities, designers, categories and seasons. Another example is the 100,000 art collection color analytics from 12,000 painters spanning 8 centuries of art. These are just two examples of the data in the Huedata massive proprietary color database.

Finally, their technology focuses on the value that Huedata brings to designers, strategists, researchers and educators who can use this treasure trove of color data to make informed design decisions for a variety of use cases.

Here is a list of 10 key benefits associated with using the Huedata platform:

1. Identify emerging color trends.
2. Conduct competitive analysis of industry color usage.
3. Brand or rebrand a company or product.
4. Name colors for new product introductions.
5. Track color popularity on social media for micro-trends.
6. Understand color associations across cultures for product design and marketing.
7. Follow prominent designers and artists for color inspiration.
8. Forecast color trends for industry use.
9. Research historical colors and cultural context for application.
10. Validate and rationalize color design decisions.

Note that Huedata also collaborates with academic institutions, research organizations, and scholars to advance the field of color intelligence and its application across various industries.

Researchers can leverage Huedata's vast color database to support their studies in fields ranging from product design and marketing to sociology and visual arts.

Now that I have shared some of the background of this iconic work, it is time for you to hear a more detailed description from its ingenious inventors. I turn the floor over to Dr. Leslie Harrington and Professor Anat Lechner, our 2024 ISCC Macbeth Award recipients.

A video recording of the technical presentation given by Dr. Harrington and Professor Lechner can be found at:
http://www.iscc-archive.org/videos/2024_Macbeth_Lecture.mp4

In Memoriam: Arthur William Springsteen – 1948-2024

Arthur William Springsteen was born in Milford, Connecticut, October 30, 1948, and died at his home in Sunapee, NH on May 28, 2024, with his wife and special kitties, Koji and Sakura, nearby.

Art Springsteen was a longtime friend, mentor, and supporter of the ISCC, its membership, and indeed the greater color community. The company he founded, Avian Technologies, LLC, has been an ISCC Sustaining Member since 2007, demonstrating his enthusiastic advocation for the color community. His active support precedes even the founding of Avian Technologies, as Art was the champion within Labsphere for their Sustaining Membership beginning in 1992. In addition to that support, Art served on the ISCC Board of Directors from 2013 to 2015, and in a variety of capacities at many conferences over the years.

Art had a storied life, professionally and personally. As the son of a career Navy man, Art spent his younger years at various naval bases along the east coast, including two years at Naval Station Guantanamo Bay in Cuba. He was active in sports from an early age, particularly baseball and golf, and earned a baseball scholarship to Saint Francis University (then College). He was an active golfer for his entire adult life, setting records and playing in tournaments until his health no longer allowed it.

Arthur Springsteen

Academically, he graduated from Saint Francis College with a degree in chemistry in 1970. He later received the Distinguished Alumnus in Science Award from Saint Francis in 2015. He obtained a Master of Science degree from Marshall University and a Ph.D. in Chemistry from West Virginia University. After a post-doc position in West Virginia, he moved to New Hampshire to work at Labsphere, ultimately as Principal Scientist and Director for Advanced Development. Avian Technologies was founded in 1999, and the rest, as they say, is history. At the time of his death, Art had recently retired as the President and Chief Technical Officer of Avian Technologies.

Art has published more than thirty scientific papers and has contributed to Spectroscopy magazine's “Spectroscopy Workbench” section. He was the co-author/editor (with Jerry Workman) of the Academic Press book Applied Spectroscopy, A Complete Guide for Practitioners, and has edited the Proceedings of the Third and Fourth Oxford Conferences on Spectrometry. He was a member and former Secretary of the Council for Optical Radiation Measurement, and a former member of the National Research Council of the U.S. He was also an active member of ASTM Committees E-12 (Color and Appearance) and E-13 (Molecular Spectroscopy), the Society for Applied Spectroscopy, and Council for Near-Infrared Spectroscopy. Recently, Art worked with NASA, the Neils Bohr Institute, and Lucideon Ltd. to develop color standards that are used to calibrate the cameras of the Mars 2020 Perseverance Rover.

Art leaves his wife of almost 53 years, Kathryn; a daughter, Anne Springsteen, and her husband John Trussell of Lake Oswego, Oregon; sisters-in-law Colleen Mooney of Grandview Heights, Ohio and Miriam Freedman of Kibbutz Bet Rimon in Israel; brother-in-law, John Mooney of Charleston, West Virginia; his Aunt Evelyn Owens of Ashburn, Virginia; and several nieces, nephews and cousins.

Fluorescent Fridays

Luanne Stovall

November Event

What: Students in Color, Saving the Planet Through Optics Education

Who: Dr. Jennifer Kruschwitz, Associate Professor of Optics, The Institute of Optics, University of Rochester, Demetrious Dowdell, Ph.D. Optics student, Megan Fallon, M.S. Optics student, Jayvyn Dennis, Junior Optics student

When: Friday, November 1, 1 – 2 p.m. EST (via Zoom)

Zoom link:
https://www.iscc.org/event-5919888/Registration

Agents D (Demetrious), M (Megan), and J (Jayvyn) have been advised by Dr. K (Professor Kruschwitz) to prepare a briefing for the masses on November 1, 2024 – Dia de los Muertos. The objective is to guide the audience in the abundance of optical phenomena that result in or utilize color. The agents will wrangle with topics such as polarization, color mixing, refraction, and diffraction in a

way that will illuminate the mind and dazzle the senses. Each topic will be presented with a visual experiment, and the agents will make sure that they share a list of equipment so that inquiring minds can replicate each on their own. No math skills are required for attendance, only curious individuals who want to know more about optics and color.

Recent Event

May
Fluorescent Friday spotlighted Design students and faculty from the Universidad Austral de Chile.

Los Rios en Colores / The Rivers Region in Colors

Check out the video on the ISCC YouTube channel:
https://www.youtube.com/watch?v=2o1Jy7Oh_sE&t=1682s

Speakers:

- Elisa Cordero-Jahr, Professor, Project Coordinator
- Ingrid Calvo Ivanovich, Color Designer, Research Consultant
- Catalina Garcia, 2023 program graduate
- Florencia Rodriguez, student
- Diego Araneda, student
- Gènesis Alvarado, student

The **Inter-Society Color Council** created **FLUORESCENT FRIDAYS** as an online platform for international university students from diverse color-related disciplines to share their research and network with color professionals. The goal is to build a global student chapter that positions color as a multidisciplinary STEAM model (Science, Technology, Engineering, Arts, Math) and provides state-of-the-art color research by scientists, artists, designers, industry professionals and university students.

ISCC Webinar report

Ann Laidlaw

December Webinar

Julia Hartling and Chasing Colors: Evolutionary Insights into Why We See Red (and Everything Else)

Tuesday, Dec. 3 at 2 p.m. EST

Why do humans have color vision? The absence of color perception does not seem to impact our comprehension of the world – we don't need it to see motion, recognize faces or distinguish depth, and we enjoy watching black and white movies. Yet, color vision and its associated vast neural circuitry has been maintained in humans and many other animals. There are two main hypotheses as to why our ancestors evolved trichromatic color vision. One theory is that it boosted our ability to find ripened food, and the other is that color vision enhanced our discrimination of emotional states, improving our ability to choose mates.

Either way, here we are, animals with trichromatic color vision, maybe even moving into tetrachromacy. Most of us see hundreds of colors, but why do we each have our own preferences? There is a theory that favoring an object of a certain color translates into a general preference for that color, for example, if you like red apples, you will like the color red. Colors carry complex meanings, can streamline our ability to make complex decisions, and therefore are adopted by virtually all human cultures to be powerful societal symbols. To what extent are color preferences universal or individual, and how do they vary with age, sex and culture? We will explore these questions and more as we consider our relationship to color.

Julia Hartling

Julia Hartling was born in the Soviet Union and came to the United States in 1994. She has a Ph.D. in Evolutionary Biology from Yale University. For her dissertation, she studied the evolution of protein structures and sequences. Julia is also an artist and published illustrator. She has participated in many personal and group exhibitions and has produced various illustrations by commission.

January Webinar

Andrew Reach and COLOR EQUALS LIFE

Tuesday, Jan. 14, 2025 at 2 p.m. EST

Andrew Reach

In my childhood, we had a piece of white coral in our home. I asked my father what it was, and he explained to me it was kind of like a plant on land that's a living thing, but instead of living on land it lives in the ocean. He continued, it was once alive but had died and that when it was alive it was a very colorful creature and what was left was its skeleton. Like this memory, my art is one of a perspective that is built of layers upon layers of inspiration, meaning and life experiences. Color is a strong part of my life experience. Growing up in Miami, the tropical colors, from the hedge in my backyard of deep pink Hibiscus flowers to the azure blues of the Atlantic Ocean to the coral reefs I scuba dove in the Florida Keys, the saturated colors seeped into me and never left. I like to think of how I approach color in my art, that color equals life. Like a coral reef, which grows over time and builds its skeletal structure, my work, built in 3D, starts with modular parts put together to form virtual skeletal structures. When I build them, they are void of color, just form. Void of color, it's analogous to a bleached coral missing that life force that living organisms and their brilliant color bring to their structures. This is true of all living things. What brings my structures to life is color.

Andrew Reach began to aspire to make his mark on the world around him. Growing up in Miami, the saturated colors seeped into him and never left. A resident of Cleveland for 17 years with husband Bruce (together now 43 years), he connects to the cultural richness of the region and with creative talent there that inspires him every day. His work has been exhibited in the United States in solo and group exhibitions. among them the Permanent Collection of the Frost Art Museum, University Hospitals Art Collection, Summa Health Healing Arts Collection and the Cleveland Clinic Art Collection. His work in public art includes a permanent installation at the LGBT Community Center of Greater Cleveland; a 10 x 30-foot art wall for the Cleveland Public Library's "SEE ALSO" public art initiative and most recently; in progress, a 30-foot-long 3D wall artwork for Case Western Reserve University's School of Medicine Dental Clinic on Cleveland Clinic's Education Campus.

With Appreciation to Dr. Michael H. Brill

Sometime in the middle of 2007, Mike Brill conceived of the idea of a regular newsletter column called “Hue Angles.” The articles were intended to be short excursions down paths exploring color from a variety of viewpoints. Initially, Mike acted as the editor, recruiting authors to contribute. As this became more difficult, Mike ended up authoring the majority of the articles himself. Sometimes they strayed a bit from the path of color. Mike has a fondness for math, and indeed many other subjects, that he could not wholly keep out of these columns as the years went by. Still, they were always interesting, and usually accessible to a wide audience, and no one was going to hold this against Mike.

Fast forward 14 years and 83 columns later. All (or most) of these columns appear in the ISCC News, and therefore are part of the official long-term record of the ISCC. With a little of Mike’s help, we will assemble a more accessible archive of columns and make it available via iscc.org.

Michael Brill

The poem “World and Mind,” composed by Mike, appeared in the sidebar of the blog at <hueangles.blogspot.com>. It is reproduced in the sidebar here.

We cannot overstate the dedication and perseverance, not to mention all the hours that Mike put in over the last 14+ years – recruiting authors, writing columns, and editing most of them. Mike, you have our unending appreciation, and our fondest wishes to enjoy your retirement. Thank you!

Dave Wyble
Past President, ISCC and sometimes Hue Angles Tech Support Guy

World and Mind
(with apologies to Robert Frost)

Some say that color’s in the world,
Some say in mind.
From optics bench with light pipes furled
I hold with those who favor world.
But since you bug me for advice —
I think I know enough of dreams
To know that there the hues are nice,
And Berkeley schemes
A modest price

Michael H. Brill

Pebbles on the Beach - Where did the artist's primaries come from?

John Seymour

I do not know what I may appear to the world, but to myself I seem to have been only like a boy playing on the sea-shore, and diverting myself in now and then finding a smoother pebble or a prettier shell than ordinary, whilst the great ocean of truth lay all undiscovered before me.
By Isaac Newton [2]

Isaac Newton may be considered one of the earliest color scientists. He can certainly be described as the father of physics, what with all of his inverse-square law of gravity stuff. And calculus? OMG! He invented it when he was younger than most college kids who still struggle with it today. His contributions to color science will be considered in a future article, but for now, I am content to share this delightful quote that resonates with me whenever I find an interesting bit of color science knowledge and recognize how it relates to other pebbles on the beach.

I found such an interesting pebble earlier this week. It has to do with what we call the artist's primaries (red, yellow, and blue), as opposed to the printing primaries (cyan, magenta and yellow). The pebble is the question of where the notion started. Hang on until the end, because the pebble I found is a surprise ending to this story.

So, what is a set of primary colors?

A less technical person than I would say that a set of primary colors satisfies two criteria. First, they can be combined – in some specified way – to create all possible colors. Second, none of the three colors in the set can be created from other colors.

As a color scientist, I recognize that such a set of colors is not just a practical impossibility, but also a theoretical impossibility. You cannot buy a set of three colors that can be combined to create all colors. Further, such a set cannot exist in the worlds created by Newton and Einstein and Hawking. It only can exist in the worlds created by Verne and Bradbury and Heinlein, where we are free to make use of a light source with negative amounts of light at certain wavelengths.
But as a teacher of color stuff, I take a softer view. The idea of a set of three primaries is a lie, but it is a useful lie. The idea that you can start

with a set of three primaries and make any color you like is a useful conceptual approximation to reality. But I have yet to find an artist who only has three tubes of paint in their case of art supplies. And I have sent many students off on a wild goose chase to find a perfect set of three primaries. The problem is, if you find a particularly good shade of red for making orange, it will suffer when making purple, and vice versa. And don't even ask me about making white with red, yellow, and blue paint!

As an aside, this would be a great place to put in a plug for the ISCC Colour Literacy Project. This ambitious project aims to provide a coherent curriculum for color education; one that provides a unifying theme so that color can be understood in all its multi-disciplinary beauty. See https://colourliteracy.org/.

This leads me to ask, where did this cockamamy idea, excuse me, remarkable simplification of reality, come from?

Richard Waller, who was secretary of the prestigious Royal Society alongside Newton and Hooke and that gang, may have been the very first to use the idea of mixing red, yellow, and blue to create all colors. In 1686 [6], he developed a color reference chart in hopes of providing a standardized set of names for colors. He explained his process thusly:

I have mixt each of the Simple Yellows and Reds with each of simple Blews, and these Mixtures give most of the mean Colours, viz. Greens, Purples, &c.

This sounds like this could be a statement of the RYB primaries. Then again, why did he pluralize the color names? I have a lead on where I might find further details.
The first full reference to the idea RYB primaries was from a gentleman or gentlewoman by the name of A. Nonymous in 1708 [1], who through the centuries has been a very prolific writer. This is what he/she wrote:

Strictly speaking there are only three primitive [primary] colors, that cannot themselves be constructed from other colors, but from which all others can be constructed. The three colors are yellow, red and blue, for white and black are not truly colors, white being nothing else but the *representation of light, and black the absence of this same light.*

There is a distinct possibility that this was written by Jacob Christoph le Blon, who was a painter and printer. Le Blon dabbled in mezzotint printing, where a copper plate was first given a rough surface, and then selectively smoothed out to different degrees. The rougher the resulting area, the more the ink would be taken on by the plate, and subsequently the additional ink would be transferred to a paper when it was pressed against the plate.

By the way, Le Blon didn't come up with the idea of mezzotint printing. But he did invent something even cooler. To explain his invention, I need to mention that multicolor print (up until that time) required one plate for each distinct color. There was no concept of printing red and yellow together to get orange. If a printer wanted orange, then they would just have to make an orange printing plate. Two shades of brown? Two more plates. Multi-color printing was a paint-by-number task.

Le Blon's brilliant idea was to mix varying amounts of red, yellow and blue inks to replicate all the colors. To make his plates, he would look at an image, for example, a painting, and conceptualize how much to smooth out each of the three plates to get the desired color.

Le Blon was granted a patent for this printing technique by King George I of England in 1719 [4]. A group of investors funded the creation of a company that was commissioned to create a series of lithographs of a number of paintings, sell them, and make lots of money. Sadly, this ended up like the fellow who lost a little money selling each widget he made but tried to make it up in volume…and then had trouble delivering that volume.

Le Blon managed to escape his debts and angry investors by moving to France and taking up knitting. I mean that literally. He developed a scheme for combining colored yarns to create multicolor images. The word on the street is that he didn't do so well at that either.

Gee whiz, did that mean le Blon's legacy was little more than an empty bottle of muscatel?

Not at all! Le Blon's idea lived on in two ways.

Le Blon's ideas were carried on by his arch nemesis, Jacques Fabien Gautier d'Aguty. There was a bitter battle between the two of them over priority – who thought of the idea first. In particular, the argument may have been over who thought of the idea of a fourth plate to fill in the shadows where the existing inks couldn't make a good black. Or it may have been over the fact that Gautier actually had a successful business, one that lasted a few generations beyond Gautier.

The second form of immortality came from a pamphlet published by le Blon in 1720 called Coloritto [5]. He started this booklet with the lesson that Mrs. Reedhauser taught my kindergarten class. Red plus yellow equals orange. Red plus blue equals purple. Yellow plus blue equals green. Now I suspect that Mrs. Reedhauser did not learn about the primary colors directly from le Blon. (Even though I am pretty close to ancient, and I recall my kindergarten teacher being really, really old, like maybe 35 or something.) I suspect that a few other elementary school teachers taught this same lesson to a whole bunch of kids in places outside of Baraboo, Wisconsin where I went to school. I think that's immortality, even if le Blon's name did not become a household word.

And that is how the artist's primaries became red, yellow and blue.

Aren't you forgetting the surprise ending that you promised?

Funny you should ask that question. I was just getting to that. You see, today, we differentiate between the artist's primaries (red, yellow and blue) and the printing primaries (cyan, magenta and yellow). I may have mentioned that before. Saying that RYB works better for paint and CMY works better for printing kinda explains the whole confusion away. We have one set for artists and one set for printers, and if you are into stage lighting or computer screens, you go with the RGB primaries. It's not neat and tidy, but at least there are no more fistfights over what the true primaries are.

But riddle me this! Le Blon's original set of primaries were introduced in the first chapter of his pamphlet (which he entitled "Of Preliminaries"). Here is a quote from the start of that chapter:

Painting can represent all visible Objects with three Colours, Yellow, Red, and Blue; for all other Colours can be compos'd of these Three, which I call Primitive;

In the second chapter of Coloritto (which he entitled "To Attain the Practical Part"), le Blon created another list of "simple colors" to be used by painters to make flesh tones: vermilion, lac and red earth (all red pigments), yellow ochre, and brown ochre, ombre and burnt ombre (all brown pigments).

It is almost as if the person who wrote the second chapter of his pamphlet never bothered to read the first! If all visible colors can be made with yellow, red and blue, then why does an artist need yellow, three versions of red, and three versions of brown just to paint flesh tones!?!? Huh??

I cannot claim to be able to fathom just what was going through our hero's head when he wrote this, but I will hazard a guess. For painting, he recognized that you need (and will benefit from) a wide palette of base colors. Blick knows that as well; their "Artists' Acrylic Set" has 12 different pigments. But for printing, le Blon was certainly aware that parsimony was critical. If he could do a decent job using only three plates, then that was a really good thing.

If my interpretation is correct, then ironically, the so-called artist's primaries were originally selected for printing, and not for painting. The original artist's primaries included whatever pigments the artist could get their hands on. I think it would be more appropriate to call red, yellow and blue "the original set of printing primaries which have been improved upon by the replacement of red with magenta and blue with cyan." I will mention this to Mrs. Reedhauser when I next see her. I am sure she will contact all her former students, and everyone will sleep better from having a good look at this pebble.

Disclaimer

I came across a delightful quote in my prodigious research on this topic:

There are so few people working in [the field of history of color printing] that with a couple of weeks of reasonable effort one can become an authority on at least some small corner of the field. [3]

With that said, I stake my claim on this small corner of the field and welcome anyone who has spent a couple of weeks of reasonable effort to contest my claims!

References

[1] Anonymous, Traité de la Peinture en Mignature, 1708

[2] Brewster, David, 'Newton, Sir Isaac', Encyclopaedia Britannica 7th ed. (1842), pp. 175-181 https://www.newtonproject.ox.ac.uk/view/texts/diplomatic/OTHE00010

[3] Gascoigne, Bamber, Milestones in Color Printing 1457 – 1859, Cambridge University Press, 1997

[4] le Blon, James Christopher, A New Method of Multiplying Pictures and Draughts by a Natural Colleris with Impression, British patent office no. 423, 1719

[5] le Blon, James Christopher, Coloritto; or the Harmony of Colouring in Painting: Relating to the Mechanical Practice, Under Easy Precepts and Infallible Rules, Together with Some Color'd Figures, In Order to Render the Said Precepts and Rules Intelligible, Not Only to Painters, But Even to All Lovers of Painting, 1720

[6] Waller, Richard. 1686. "Tabula colorum physiologica tam mixtorum quam simplicium quadrilinguis una cum speciminibus adjectis." Philosophical Transactions 16 (179): 24–32

Nickerson Service Award Citation 2024

The 2024 Nickerson service Award was presented to Rachel Schwen at the October 19, 2024 Annual Meeting of the ISCC. The citation was presented by Jodi Baker.

Nickerson Service Award

The Nickerson Service Award was established by the Board of Directors in 1980. This award is presented for outstanding, long-term contributions towards the advancement of the Council and its aims and purposes. The contribution may be in the form of organizational, clerical, technical or other services that benefit the Council and its members.

This award is named after Dorothy Nickerson. She began work at the Munsell Color Company research laboratory in 1921 at the age of 21. She was actively involved in color order systems as she assisted in the development of the Munsell system and in publicizing the Optical Society of America Uniform Color Scales system.

She joined the U. S. Department of Agriculture in 1927. She left after 37 years and had an accomplished career. Her interest in illumination led her to the specification of artificial daylight for judging agricultural products and textile color matching. She published many important journal articles (150) on her work. She was an active member and prestigious award recipient for several organizations including ISCC, the Instrument Society of America, the Illuminating Engineering Society, and the International Colour Association.

Now that we have heard a little bit about the namesake of this award, let's turn our focus on Rachel Schwen. She now gets to join an elite club of people who are not only accomplished in their field but dedicated to an organization that furthers research and education across disciplines in color. Her curiosity and understanding of “all things light and matter interaction” fuels her focus in color education, method development and analytical color science. By the way, this makes for very interesting conversations about color with her.

Rachel studied Color Science at the Munsell Color Science Laboratory at Rochester Institute of Technology where she focused on LED lighting design for museum application. She holds a Master of Science degree in Geological Science specializing in Mineralogy from the University of Arizona.

While this award is to recognize the service Rachel has done for the council. I would like to take a moment to acknowledge the role she has also had in the color industry in her profession. Rachel is a color scientist working in product development for Electronic Materials at 3M. Prior to that she worked at Valspar and Sherwin Williams in the Coatings and Consumer paint division. She has been a member of a global corporate color team at this company focusing on best practices throughout the business.

Rachel has served the Council in many areas:

- She served as a board member from 2017 to 2019.
- When the ISCC annual meeting was in Minneapolis, she hosted the Long-Range planning committee meeting
- After leaving the board, she became the Membership Committee Chair from 2020 to present. As Membership committee chairperson she reports to the board on the current membership at the monthly board meetings, spends countless hours editing the database of contacts, [and] learned the membership management system used by the Council to manage

contact and membership information.

- She is a member of the nomination committee for board members. They help find candidates to serve on the board who will forward the mission of the ISCC and continue to help the organization thrive.
- For Color Impact 2023 she was a member of the conference committee. Rachel continues to serve by taking on the important task of program chair Color Impact 2025.
- She has also served on the Macbeth and Godlove awards committee.

I have seen her commitment to the organization firsthand as we served on the membership committee together. Rachel, on behalf of the ISCC it is my honor and pleasure to present you with the 2024 Nickerson award.

Calendar 2024

Dec. 1	Call for Papers for Display Week 2025 https://www.displayweek.org/Portals/5/pdf/CallforPapers2025.htm
Dec. 3	ISCC webinar Cutting Edge Color:Julia Hartling 2:00 p.m. EST Chasing Colors: Evolutionary Insights into Why We See Red (and everything else) https://iscc.org/event-5909779
Dec. 3-4	AATCC Odor & Microbial Management Conference Grand Grapids, MI https://www.aatcc.org/aatcc-events/odor24/
Dec. 4	Color Marketing Group Colorspeak™ Webinar Color Harmony in the built environment: A practical workshop on leveraging color data values for design precisión, Virtual evento https://colormarketing.org/event/colorspeak-december-2024-4/
Dec. 5	Color Pigments Manufacturers Assoication (CPMA) CPMA Annual Meeting Cincinnati, OH https://www.pigments.org/news-resources/events/
Dec. 6	Color Literacy Forum 11:00 AM Eastern Color Literacy Forum #10: The Cultural Palette: Colour's Role in Identity, Gender and Society https://iscc.org/event-5948715
Dec. 6	American Society for Photogrammetry and Remote Sensing (ASPRS) 2024 Annual GeoChallenge- https://my.asprs.org/ASPRSMember/Events/Event_Display.aspx?EventKey=GEOC2024
Dec. 10	AATCC C2C Insterest Group Meeting: New Book about Color! AATCC membership required- https://www.pigments.org/news-resources/events/ https://www.aatcc.org/aatcc-events/c2c-meeting/
Dec. 12	ASTM E12.10 Retroreflection December 2024 Committee Week Orlando, Florida https://member.astm.org/meeting/event
2025	
Jan. 19	American Society for Photogrammetry and Remote Sensing (ASPRS) Preparation for ASPRS Certification Worshop at MAPPS 2025 Delray Beach, FL 1:00-5:00 PM in person https://my.asprs.org/ASPRSMember/Events/Event_Display.aspx?EventKey=MAPPS25
June 24-27	Society for Imaging Science and Technology IS & T Archiving 2025 Granada, Spain https://www.imaging.org/IST/IST/Conferences/Archiving/Archiving2025/Archiving2025_Home.aspx?hkey=92f0ee33-a36c-4594-be74-d70b6302df03
Jan. 29-30	ASTM E12 Color and Appearance January 2025 Meeting West Conshohocken, PA https://member.astm.org/meeting/event
Jan. 28	Deadline Call for Papers: Present at Optica Quantum 2.0 Conference June 1-5 https://www.optica.org/events/topical_meetings/quantum/
Feb. 2-6	Society for Imaging Science and Technology IS & T Electronic Imaging 2025 Burlingame, CA https://www.imaging.org/IST/IST/Conferences/EI/EI2025/EI2025.aspx?hkey=d482d703-518a-45a4-9741-0491be32d129
March 5-6	Color Marketing Group (CMG) Virtual ChromaZone https://colormarketing.org/event/2025-chromazone-workshops-2/

March 11	Call for Papers: Optica Advanced Photonics Congress Deadline https://www.optica.org/events/congress/advanced_photonics_congress/
March 14	American Society for Photogrammetry and Remote Sensing ASPRS Gulf South Region 2025 Annual Meeting Austin, TX 5:00 PM https://my.asprs.org/ASPRSMember/Events/Event_Display.aspx?EventKey=GSAM2025
May 13-15	Society for Information Display - Display Week https://www.displayweek.org/
March 18-19	CMG Hybrid ChromaZone Minneapolis, MN https://colormarketing.org/event/2025-chromazone-workshops-2/
March 27-28	CMG Hybrid ChromaZone Toronto, Canada https://colormarketing.org/event/2025-chromazone-workshops/
March 30-April 3	Optical Fiber Communications OFO Conference and Exhibition San Francisco, CA https://www.ofcconference.org/en-us/home/
May 11-16	Society for Information Display - Display Week Exhibition https://www.displayweek.org/
June 1-5	Optical Soeicty of America Optica Quantum 2.0 Conference and Exhibition San Francisco, CA https://www.optica.org/events/topical_meetings/quantum/
June 16-18	ISCC Color Impact 2025 Rochester, NY https://iscc.org/Color-Impact-2025
June 25	ASTM E12.10 Retroreflection Sheraton Centre Toronto Hotel ASTM International
July 13-17	Optica Advanced Photonics Congress Marseille, France https://www.optica.org/events/congress/advanced_photonics_congress/
August 21-23	Illuminating Engineering Society(IES) IES 25 The Lighting Conference Anaheim, CA https://www.ies.org/events/ies25/
Sept. 21-24	Illuminating Engineering Society (IES) SALC Street & Area Lighting Conference New Orleans, LA https://www.ies.org/events/salc2025/
Oct. 20-24	AIC 2025 Taipei 16th AIC Congress https://www.aic2025.org/
Oct. 28-31	ITMA 2025 Singapore Expo https://www.aatcc.org/aatcc-events/itma2025/

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.

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