



# 2020 ANNUAL REVIEW

Published July 2021



International Colour Association  
Internationale Vereinigung für die Farbe  
Association Internationale de la Couleur

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*We are the result of our hard work. Our passion for what we do makes us pioneers in our sector.*

*AIC 2020 Meeting  
Conference website homepage*



## INTERNATIONAL AIC2020 CONFERENCE

UNDER THE HIGH PATRONAGE OF MADAME LA MAJOR

D'AVIGNON

NATURAL COLORS



DIGITAL COLORS

**November 20, 26-27, 2020**



# AIC 2020

## PRESIDENT'S REPORT

by Vien Cheung

The AIC Executive Committee 2020-2021 was appointed at the AIC 2019 General Assembly in Buenos Aires, Argentina. Let us take a moment to look at the profile of the new EC. Serving as Ordinary Members, Robert Hirschler (Hungary) joins Paula Csillag (Brazil) and Takahiko Horiuchi (Japan) to work as part of the team ensuring the EC's work and recommendations are in keeping with the general AIC mission and goals. Maurizio Rossi (Italy) is a General Co-chair of the 14th AIC Congress to be organised in Milan, Italy on 30 August - 3 September 2021. Ralf Weber (Germany), Secretary/Treasurer, is accountable for organising and servicing EC meetings, AIC financial book-keeping and oversight, as well as managing the AIC memberships. Leslie Harrington (USA), Vice-President, has a key role to coordinate the Deane B Judd Award and the AIC Colour Award in Art, Design and Environment for 2021 and the EC Election for 2022-2023; in addition to her great contribution as editor of the AIC Annual Review and webmaster. In my capacity of President (UK), I am responsible for upholding the AIC traditions and integrity, ensuring the AIC statutes and guidelines are effectively implemented and, overseeing the continued development and delivery of the AIC activities. Together with our Auditors Berit Bergström (Sweden) and Jose Caivano (Argentina), Immediate Past

President Tien Rein Lee (Taiwan) provides invaluable guidance to the compliance and continuity during the AIC governance transitions.

The below space is reserved to display my EC colleagues' hope of accomplishments (reprinted from their vision statement as part of the nominations) in their term-of-office 2020-2021:-

*"As Vice President, I would continue to enhance these AIC communication platforms to better support the goals of the organization."*

– Leslie Harrington (USA)

*"I intend to place a personal emphasis on a better dialogue between theorists in the world of color and practitioners in the many design professions, for instance, through the encouragement of mutual research projects and overarching sessions at our conferences. Furthermore, I would like to establish a biannual newsletter for the AIC membership."*

– Ralf Weber (Germany)

*"I would like to help the work of the EC utilizing my experience in the field of colour and in the activities of AIC. I'd like to continue my work as SGCE Chair, but also help the EC in other areas, such as the organization of events, preparation of the Annual Review and other administrative tasks."*

– Robert Hirschler (Hungary)

*"I will work to further strengthen services and outreach activities that will support AIC membership with the aim of AIC strongly influencing international discussions about the future of colour."*

– Takahiko Horiuchi (Japan)

*"I hope to contribute to the AIC, with my repertoire, helping in what may be necessary, and bringing the Brazilian perspective."*

– Paula Csillag (Brazil)

*"Online Milan, together with the Università di Milano, Politecnico di Milano and the Congress organizers (Gruppo del Colore – Associazione Italiana Colore), is ready to welcome the participants from all over the world to the 14th AIC Congress, both as presenters and auditors, to explore together the scientific and cultural themes of human activity in which color intervenes or assumes a prominent place."*

– Maurizio Rossi (Italy)

2020 – a year of change and transformation: some were planned while many were exceptional and unprecedented. Despite the challenging circumstances throughout the year, there are still plenty to be thankful for. It is a blessing to learn that our AIC members have been adapting well with the COVID lockdowns and largely maintaining their planned activities.

I would like to congratulate the Centre Français de la Couleur, led by Patrick Callet, for their successful delivery of the AIC 2020 Interim Meeting in November 2020. Their commitment and flexibility enabled the first AIC online conference. Although the pandemic paused our physical presence to experience different local colours around the globe, it offered great accessibility to many online colour events given the relatively little time and expenses constraints. Thanks to our Study Group leaders: Maria João Durão, Robert Hirschler, Maggie Maggio, Katsunori Okajima, Manuel Melgosa, Verena M. Schindler, Yulia A. Griber, Dimitris Mylonas and Galina V. Paramei for their continued efforts to organise stimulating colour meetings during the year.

Colour is universal. It is often an effective vehicle to bridge everyone across different categorical boundaries. Our members' creative ways to the International Colour Day (ICD) 2020 celebration have demonstrated the power of colour on encouraging unity.

Looking forward to the new year of 2021, the Gruppo del Colore – Associazione Italiana Colore is fully equipped to adapt for different

scenarios to host our 14th AIC Congress on schedule. Future AIC conferences committed by Colour Research Society of Canada (2022), Color Society of Thailand (2023), Associação Pró-Cor do Brasil (2024) and Color Association of Taiwan (2025) are under preparation to welcome every of our regular and new participants worldwide. Maria João Durão, our key ICD coordinator, is working towards a comprehensive report to illustrate all the AIC ICD celebrations since 2010. This report will be an important support document as part of our application for international days observed at UNESCO.

I wish to take this opportunity to thank you all for being an integral part of the AIC and the continued support.

Vien Cheung

President

Association Internationale de la Couleur

*Vien Cheung is President until end of 2021 and then Leslie Harrington will be President for the 2022-23 term.*

## // GLOBAL MEMBERSHIP //

**AIC REGULAR MEMBERS****ARGENTINA**

GRUPO ARGENTINO DEL COLOR  
aike.fadu.uba.ar/sitios/sicyt/color/gac  
María Paula Giglio (President)  
Anahí López (Secretary)

**AUSTRALIA**

COLOUR SOCIETY OF AUSTRALIA  
www.coloursociety.org.au  
Jean Pretorius (President)  
Glenys Thomson (Secretary)

**BELGIUM**

INTERDISCIPLINARY COLOUR ASSOCIATION  
https://ica-belgium.org/  
Jeannette Hanenburg (President)  
An Truyens (Secretary)

**BRAZIL**

ASSOCIAÇÃO PRÓ-COR DO BRASIL  
www.procor.org.br  
Paula Csillag (President)  
Fabio Cuppo (Treasurer)

**BULGARIA**

COLOR GROUP BULGARIA  
www.bgcolorgroup.org  
Ralitza Gueleva-Tzvetkova (President)  
Sofia Anguelova (Secretary)

**CANADA**

COLOUR RESEARCH SOCIETY OF CANADA  
www.colourresearch.org  
Doreen Balabanoff and Robin Kingsburgh  
(Co-Presidents)  
Vivian Lo (Vice President)

**CHILE**

ASOCIACIÓN CHILENA DEL COLOR  
www.asociaciondelcolor.cl  
Elisa Cordero (President)  
Ingrid Calvo Ivanovic (Outreach)

**CHINA**

COLOR ASSOCIATION OF CHINA  
www.fashioncolor.org.cn  
Haisong Xu (President)  
Yu Ma (Secretary)

**CROATIA**

HRVATSKA UDRUGA ZA BOJE  
www.hubo.hr  
Martinia Ira Glogar (President)  
Ivana Ziljak Stanimirovic (Secretary)

**FINLAND**

SUOMEN VÄRIYHDISTYS SVY RY  
www.svy.fi  
Saara Pyykkö (President)  
Harald Arnkil (Vice-president)

**FRANCE**

CENTRE FRANÇAIS DE LA COULEUR  
www.centrefrancaisdela couleur.fr  
Patrick Callet (President)  
Barbara Blin-Barrois (Vice-President)

**GERMANY**

DEUTSCHER VERBAND FARBE  
www.dfwg.de  
Frank Rochow (Chairman)  
Axel Buether (Vice-Chairman)

**GREAT BRITAIN**

THE COLOUR GROUP (GREAT BRITAIN)  
www.colour.org.uk  
Marina Bloj (Chairman)  
Jenny Bosten (Secretary)

**HUNGARY**

HUNGARIAN NATIONAL COLOUR C'TEE  
http://mta.aic.mnb.uni-obuda.hu  
Ákos Nemcsics (President)  
Janos Zana (Secretary)

**ITALY**

ASSOCIAZIONE ITALIANA COLORE  
www.gruppodelcolore.it  
Marcello Picollo (President)  
Veronica Marchiafava (Secretary)

**JAPAN**

COLOR SCIENCE ASSOCIATION OF JAPAN  
www.color-science.jp  
Hiroyuki Shinoda (President)  
Katsunori Okajima (Liaison)

**KOREA**

KOREAN SOCIETY OF COLOR STUDIES  
www.color.or.kr  
Jinsook Lee (President)  
Hyeryeoun Kim (Secretary)

**MEXICO**

ASOCIACION MEXICANA de INVESTIGADORES del  
COLOR A.C.  
www.amexinc.mx  
Georgina Ortiz Hrdz (President)  
Lourdes Sánchez Carpintero (Secretary)

**THE NETHERLANDS**

STICHTING KLEURENVISIE  
www.kleurenvisie.nl  
Kim Van Savooyen (Director)  
Jan de Vletter (Secretary)

**NORWAY**

FORUM FARGE  
www.forumfarge.no  
Mette L'orange (President)  
Aland A. Mendoza (Secretary)

**PORTUGAL**

ASSOCIAÇÃO PORTUGUESA DA COR  
www.apcor.org  
Verónica Conte (President)  
Joana Perry (Secretary)

**SLOVENIA**

SLOVENSKO ZDRUŽENJE ZA BARVE  
www.szb.si  
Jasmina Weiss (President)  
Sabina Bračko (Secretary)

**Our members represent  
28 regular members  
representing 5 continents.**

**SPAIN**

COMITÉ ESPAÑOL DEL COLOR  
http://www.sedoptica.es/SEDO/color/index.htm  
Meritxell Vilaseca (President)  
Luis Gómez (Secretary)

**SWEDEN**

STIFTELSEN SVENSKT FÄRGCENTRUM  
www.fargcentrum.se  
Lena Anderson (Chairman)  
Berit Bergström (Liaison)

**SWITZERLAND**

PRO/COLORE  
www.procolore.ch  
Tanja Jacobssohn (Geschäftsstelle)  
Verena M. Schindler (Liaison)

**TAIWAN**

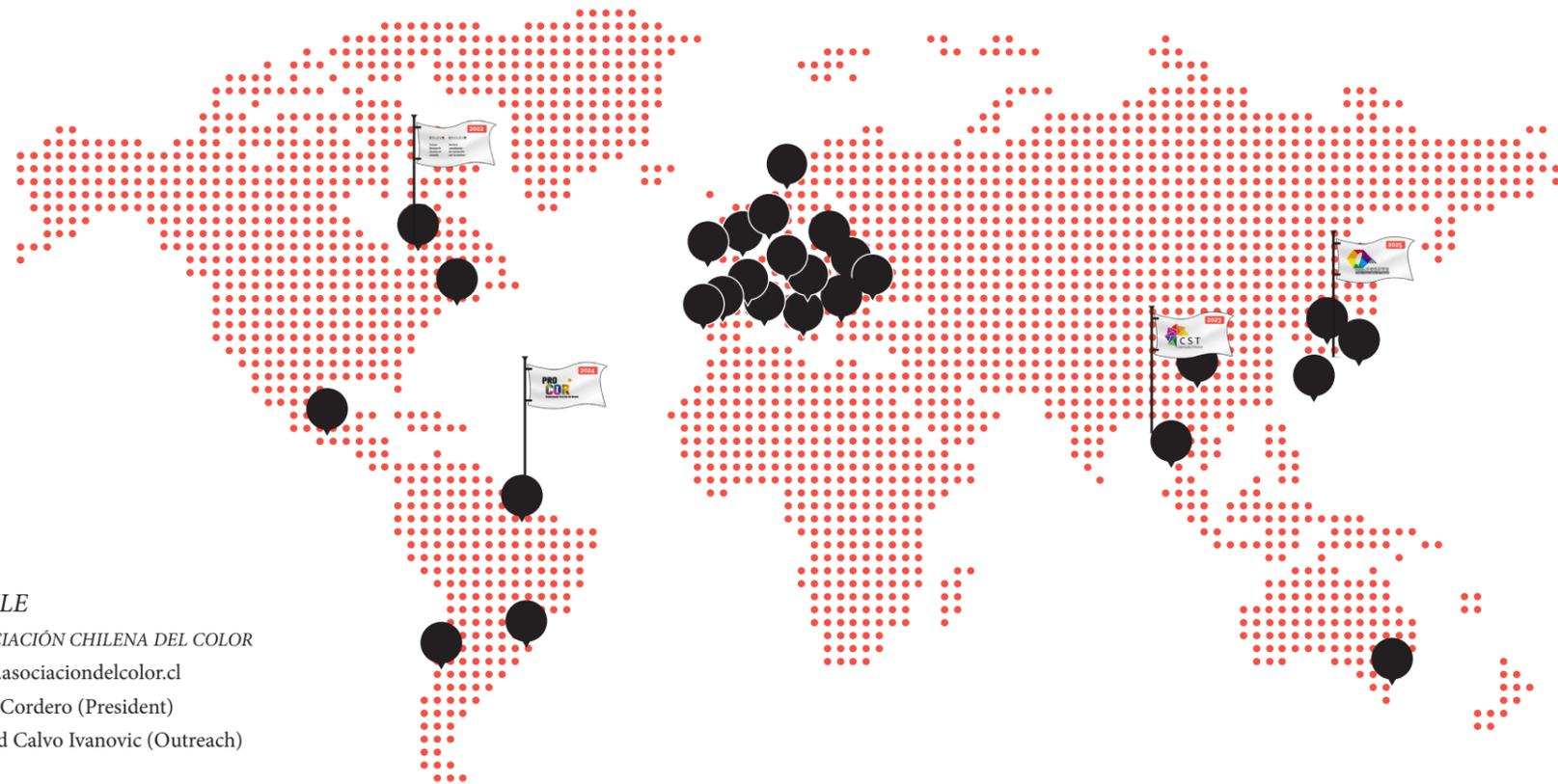
COLOR ASSOCIATION OF TAIWAN  
www.color.org.tw  
Tien-Rein Lee (President)  
Cheng-Min Tsai (Deputy Secretary)

**THAILAND**

COLOUR SOCIETY OF THAILAND  
www.thaicolourgroup.org  
Pichayada Katemake (Chairman)  
Chanprapha Phuangsuwan (Secretary)

**USA**

INTER-SOCIETY COLOR COUNCIL  
www.iscc.org  
David R Wyble (President)  
Paula Alessi (Liaison)



## AIC HISTORY

AIC was founded June 21, 1967, in Washington DC, USA, during the 16th Session of the CIE (Commission Internationale de l'Éclairage)

AIC Foundation Documents was signed in by these eight national color associations:

France - Centre d'Information de la Couleur  
(Yves LeGrand)

Great Britain - The Colour Group (Great Britain)  
(Robert W. G. Hunt)

Japan - Color Science Association of Japan  
(Tamotsu Fukuda)

Spain - Comité Español del Color  
(Lorenzo Plaza)

Sweden - Swedish Colour Group  
(Gunnar Tonnquist)

Switzerland - pro/colore  
(Ernst Ganz)

The Netherlands - Nederlandse Vereniging voor Kleuren-  
studie  
(J. L. Ouweltjes)

USA - Inter-Society Color Council  
(Deane B. Judd)

If you would like to learn more about AIC please read,  
The Early History of the Association Internationale de la  
Couleur (AIC) by Gunnar Tonnquist, published in AIC Color  
77, Proceedings of the Third Congress, Troy, New York, 10-15  
July 1977 (Bristol, England: Adam Hilger, 1978), 13-32.

// GLOBAL MEMBERSHIP //

### AIC ASSOCIATE & INDIVIDUAL MEMBERS

#### ASSOCIATE MEMBERS

Color Marketing Group - CMG, USA  
International Association of Color  
Consultants/Designers, North America

#### INDIVIDUAL MEMBERS

Jacqueline Carron, France  
Yulia Griber, Russia  
Kazim Hilmi Or, Turkey  
Lia Margarita, Colombia  
Zena O'Connor, Australia  
Yannis Skarpelos, Greece  
Andrea Urland, Slovakia  
Martina Vikova, Czechoslovakia

// BEHIND THE SCENCE //

### 2020 AIC EXECUTIVE COMMITTEE



**President**  
*Vien Cheung*  
UK



**Vice President**  
*Leslie Harrington*  
USA



**Past President**  
*Tien-Rein Lee*  
TAIWAN



**Secretary | Treasurer**  
*Ralf Weber*  
GERMANY



**Ordinary Member**  
*Paula Csillag*  
BRAZIL



**Ordinary Member**  
*Takahiko Horiuchi*  
JAPAN



**Ordinary Member**  
*Maurizio Rossi*  
ITALY



**Ordinary Member**  
*Robert Hirschler*  
HUNGARY

### 2020 Auditors



*Berit Bergström*  
SWEDEN



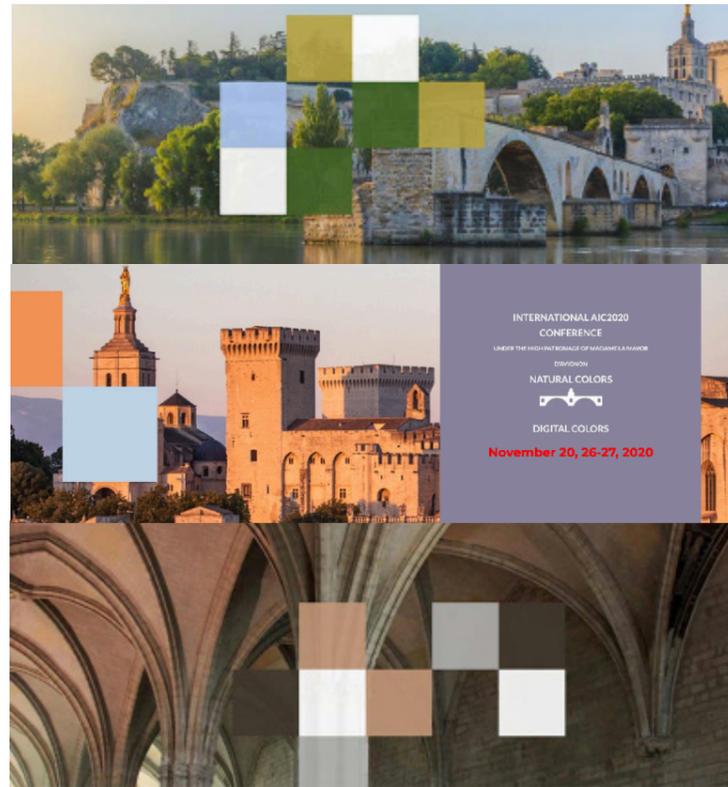
*Jose Luis Caivano*  
ARGENTINA

### AIC EXECUTIVE COMMITTEE 2020-2021

Elections were held in Buenos Aires for the 2020-2021 term.  
Election results:

Leslie Harrington - Vice President  
Ralf Weber - Secretary | Treasurer  
Robert Hirschler - Ordinary Member

Tien-Rein Lee remain as Past President, Vien Cheung,  
President, Paula Csillag, Takahiko Horiuchi and Maurizio  
Rossi as Ordinary Members. Berit Bergström and  
Jose Luis Caivano will remain as auditors.



**Centre Français  
de la Couleur**

**32 Countries**

**250 Participants**

**130 Presentations**

**148 Abstracts**

**82 Reviewers**

# AIC MIDTERM MEETING

Palais des papes – Avignon – Provence

Hosted by Centre Français de la Couleur

**Natural Colours - Digital Colours**

**November 20, 26 & 27, 2020**

Venue: Online Meeting

Chairs: Patrick Callet, Honorary Presidency and Dominique Cardon, Livio de Luca

Organized by Centre Français de la Couleur

It was a real pleasure and a wonderful souvenir for our French community of color specialists to have organized the AIC2020 conference on "Natural Colours - Digital Colours". Although it was not possible to really meet all the participants from all over the world, the first AIC virtual meeting gathered around 250 people. Among all these participants, we had 130 authors of full articles and posters. 148 abstracts coming from 32 countries from all the continents with a majority in Europe have been submitted. They were reviewed by 82 experts coming from 23 countries despite the pandemic and the confinement period which affected many countries at the beginning of 2020.

Many of you followed the evolution of the AIC2020 project and hoped to see it come true "for good" in Avignon. We had to successively abandoned the Popes' Palace and the exhibition project in the Great Audience Room (XVth century), the preparatory workshops, the AIC Study Groups meetings, the dinner cruise on the Rhône river and all other social events. The Coronavirus, which was still advancing faster than us, forced us to imagine a hybrid conference. We hoped, even with a reduced number of participants, to organize the conference at the Théâtre des Halles.

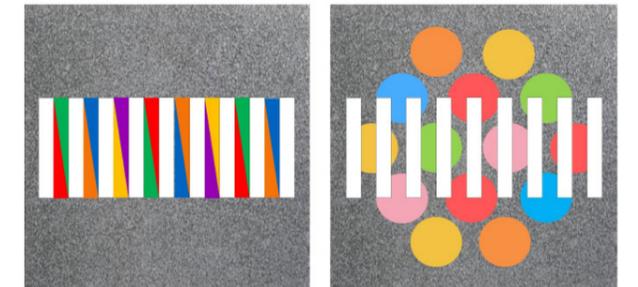
Avignon, after having been the capital of madder, became in the 20th century the capital of the theater. I would like to thank all those who supported us in this project and, like us, considered that the entirely virtual conference was the worst solution but the only one, in fine, achievable. The constant support and advice of the AIC and especially of her President, Vien Cheung, was invaluable and contributed to the final achievement which some, among us, no longer believed.

As explained in the video presentation I made as introduction to the AIC2020 conference, the title we chose "Natural Colors – Digital Colors" raised many questions. What exactly does "Natural Colors" mean? It is nonsense but everyone understands it as the colors of natural materials. It is a broad subject that carries a lot of level of complexity in many areas. This largely explains the number of contributions relating to this first theme of the conference. But we live in an era where digital transformations and all fields of research are invaded by digital technologies. How to talk about natural colors, natural or synthetic materials in a visualization and lighting environment so different for all the participants? The visual rendering of natural materials, transformed by time and various alterations, the evolution of lighting, including natural lighting itself becomes a very complex set of subjects which involves historical and archaeological knowledge, history of art and technology in particular. The fire in April 2019 at Notre-Dame de Paris cathedral unfortunately contributed to this heritage dimension of the conference program. While major international conferences are dedicated to digital images, color and visual appearance, our subject placed the AIC2020 conference at the crossroads of several worlds. Digital image processing, image synthesis and virtual reality were also concerned by all fields of research involving material rendering in several lighting and viewing conditions on digital displays. That situation made us reflect on the color and appearance to be found and restored in monuments and works of art, most of which being part of world heritage.

The six invited conferences made it possible to widen the field of color in the sense that they concerned the environment and its modifications induced by climate change. The hidden colors of the ocean, UV rays and plants, architecture and built heritage, the color of flowers and that of cephalopods, have also indicated to us the role of humans and civilizations in the very transformations of the living world. The digital technologies presented could help heal the wounds of our planet Earth. To deepen your knowledge on a selection of topics presented in the virtual symposium "Natural Colors - Digital Colors", you can refer to the special issue of Color Research and Application. Some of you are already preparing a paper for AIC2021 and I'm sure it will also gather more "colored" people within the framework of the quadrennial congress of the AIC.



CFC conference committee virtually presents the AIC flag to AIC 2021 organizing committee



Colour intervention designs which rated highly and which also feature photoluminescent stripes. Zena O'Connor



Paul GAUGUIN - D'où Venons-Nous, Que Sommes-Nous, Où Allons-Nous? - 1897 W561 (Where do we come from, who are we, where are we going?) oil/canvas 139 x 375 cm Boston USA, Museum of Fine Art

Interpretive digital art print made by Etienne TROUVERS for the Paul Gauguin's Cultural Center -2003- Hiva Oa – Marqueses ©E.T./SAIF2003. One detail, of the same framing, to be compared, before (top left) and after (top right) restoration. An elementary tool for graphic designer proposes a global difference measurement between two images (bottom right).



*"As two circles form the eye with equal half or rainbow of color and black representing light and darkness, day and night, everyone feast one's eye on International Colour Day"*

*Logo designed by Hosanna Yau, Hong Kong.*

# ICD 2020

## INTERNATIONAL COLOUR DAY

by Maria João Durão

The concept for an international day of colour was proposed to the AIC in Stockholm (2008) by Prof Dr Maria João Durão, Honorary and Founding President to the Portuguese Colour Association (APCOR). It was adopted as International Colour Day (ICD) commemorated on the 21st March by the AIC Executive Committee in the AIC Congress held in Sydney (2009). At the AIC2012 Interim Meeting in Taipei, designer Hosanna Yau, from Hong Kong was announced the winner of the international competition for the ICD logo design.

Covid -19 caught us by surprise and most celebrations planned for March 21st were cancelled. In order to minimize spreading the pandemic, social distancing measures were implemented and therefore ICD celebrations took place online. Croatia was an exception: CROCOS celebrated the ICD on the 21st March with the International Exhibition of Digital Imprints. A very successful exhibition of 67 works by artists from 15 countries were set up on the fences of 'Nikola Tesla Technical Museum i Zagreb', becoming visible to passing vehicles.



*Maria João Durão  
Honorary President, Associação  
Portuguesa da Cor - International Colour  
Day coordinator*

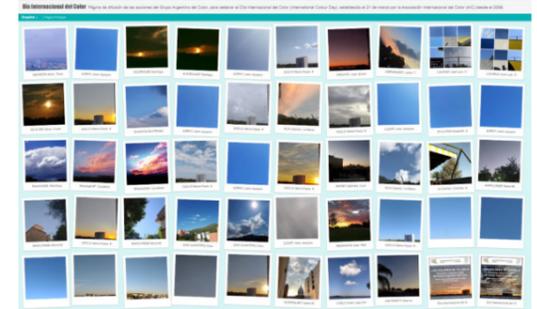
### ARGENTINA Grupo Argentino del Color (ACG)

"The Colors of Your Sky": March 21, Argentina

March 21, 2020 found us in a very particular situation in Argentina and throughout the world. We had to stay home on quarantine due to the Covid-19 pandemic. In this context of social distancing, there was something that surpassed that distancing and united us: seeing the same sky.

That is why, for the ICD 2020 Call of the AIC, the GAC presented the open collective project called "The colors of your sky" which is based on the intention of recognizing ourselves in our diversity through a series of photos that combine variety of COLORS of the SKY, the multiplicity of situations that surround us and the plurality of views on that sky, through a game between sun, moon, atmosphere, clouds, effects, observers, environment, space, color and cesía, and celebrate, through color, humanity, art, science and technology.

For this project, all those interested in color were invited to participate for free, in the autumn or spring equinox depending on the hemisphere, taking photos of the sky that they saw from where they were. The photographs that we received from different cities in Argentina, and from countries such as Colombia and France, were published on the site created for this purpose, on Facebook and instagram of the GAC, and by networks in general with the following hashtags



Selected colors from photos



### CROATIA The Croatian Color Society (CroCoS)

SPECTRUM - The Croatian Color Society, CroCoS, in co-organization with the University of Zagreb's Faculty of Textile Technology, Faculty of Architecture, Faculty of Graphic Arts and the Academy of Fine Arts, has prepared a rich program to mark International Colour day 2020, which is traditionally celebrated on the first day of spring, March 21.

The eventful all-day program, entitled "SPECTRUM", was supposed to be held at the Nikola Tesla Technical Museum. We have prepared for you a scientific and professional symposium, an exhibition thematically dedicated to color, workshops for children and adults, and International Exhibition of Digital Prints.

In the shadow of the current high-risk situation and circumstances caused by the COVID-19 virus pandemic, we had to give up organized activities, but International Exhibition of Digital Prints ZAGREB FULL COLOR 20 can be viewed on the wire fence of the Technical Museum Nikola Tesla in Zagreb from 21st March to 26th April 2020.

The virtual space is as infinite as the color space contained in the circle, therefore, with the poem N. Kalyani, chanted on the occasion of International Color Day 2019, showing the part of the exhibition that was to be held this year, an invitation to see the Zagreb Full Color 20 exhibition on the fence of the



Nikola Tesla Technical Museum and a song bursting with the joy of colours "De Colore", through our web site we send you joy of colors and wish you all a HAPPY INTERNATIONAL COLOUR DAY.

ZAGREB FULL COLOR 19

The colours of the spectrum vibrant,
A harmony splendid and brilliant,
Blending and merging in White,
Or in colours of dispersing light.
Colours reflected in relief and landscape,
And in rainbows and vistas of the skyscape.
Colours of flowers in springtime blooming,
Sharing their perfumes with the breeze wafting.
Nature's life forms in shades and hues varied,
As life's expression of Divinity carried,
Of colours a celebration,
Of life a grand integration.
Colours of love, joy and peace in unity,
Of the Heart's feelings in real purity.

by N. Kalyani, March 2019

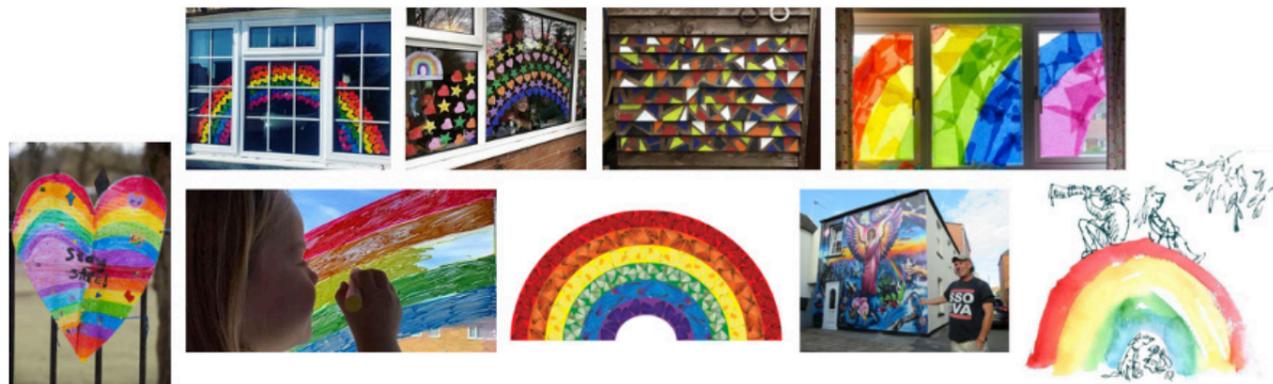


GREAT BRITAIN Colour Group (Great Britain) (CG(GB))

Celebrating Colour during the Pandemic Lockdown: Britain 2020

Because of the COVID-19 pandemic and subsequent lockdown, the Colour Group (Great Britain) could not celebrate International Colour Day 2020. Nevertheless paradoxically, the lockdown period became a time of celebrating colour across in the land of Newton. The 'Chase the Rainbow' campaign was instigated on Facebook. The entire nation, from children to local and national artists, engaged in the creation of millions of rainbows. The campaign encouraged people to display pictures of rainbows in their windows. Children were to go rainbow spotting whilst out for walks. For everybody these pictures became beacons of hope for better, brighter times ahead, a token of kindness and solidarity and a way of charitable giving.

Here are some of those rainbows from across the country that appeared in the public domain and lifted up the spirit of the nation:



From left to right:
Top row: Worthington, West Sussex; City of Nottingham; Minehead, Somerset; City of Bristol;
Bottom row: Bath, East Somerset; Gloucestershire; Damian Hirst, Butterfly Rainbow; Damian Nicolson (local artist), Burnham-on-sea, Somerset; Quentin Blake.

ITALY Gruppo del Colore - Associazione Italiana Colore (GdC)

The month of March 2020 in Italy coincided with a period of lockdown and remote lessons. However, students of Professors Renata Pompas and Lia Luzzato- who are teaching in 4 Academies- wanted to join the International Colour Day with some proposals. Thus was born the project of the "Cake" with the colours of the Italian flag. The cake is a symbol of celebration: its circular shape is a symbol of union, and its colours are the symbol of Italy. Thus symbolizes the hope that the union of citizens will soon defeat the sadness of the pandemic



JAPAN Color Science Association of Japan (CSAJ)
日本色彩学会

The second celebration of the 'International Colour Day' in Japan was held online on March 20th, 2020. At the beginning, it was planned as a half-day face-to-face event, in which two separate programs were going to be run; 1) SDGs and colors and 2) colors in ancient era of Japan. However, due to COVID-19 situation getting worse, we decided to change it into an online event and carry out the second program only. (The first program, SDGs and colors, was postponed until next year.)

On that day, Professor Kazuo Jo, Kyoritsu Women's Educational Institution, presented a special talk entitled 'Manyo-shu and colors at the time.' 'Manyo-shu' is the oldest anthology of Japanese poetry edited in 8th century. In this 90-minute talk, Professor Jo explained the characteristics of many colors and the origin of each color name, including very old and traditional ones, appeared in the poetry. He also mentioned 'Korozen' (means 'dyeing by a Japanese wax tree'), the forbidden color only the emperor is permitted to wear. It was because Japan's new emperor Naruhito has ascended 10 months ago and Japanese citizens were familiar with that color. At the end of the talk, Professor Jo summarized four points of the colors in the 'Manyo' era; 1) smelling colors, 2) adoration of plum blossoms, 3) reverence for white, and 4) changing colors. Seventy participants fully enjoyed a 'color time travel' through the screen.



MEXICO Asociacion Mexicana de Investigadores del Color A.C.

Please refer to country report, page 52 for details on ICD celebration.

PORTUGAL Associação Portuguesa da Cor (APCor)

On December 12, APCor was able to celebrate the International Colour Day, making it a special event. We gathered again around colour and poetry, joining the research cluster P'ARTE / Theleme / CEC - Centre for Comparative Studies, School of Arts and Humanities, University of Lisbon, in the organization of the event, and launching the first publication of P'ARTE: recolhas poéticas (P'ARTE: poetic collections). The event occurred in a Zoom room, in the presence of about 30 people.

We went back to, mentally and through images, walking the path that led us to the publication: the shared motivations by P'ARTE and APCor, the warmth of the Poetry and Colour reading meeting at O'Malta bar in Lisbon in 2019, the enthusiasm that triggered the collection of unpublished poems to compile them in an object of careful aesthetics, in relation to colour and words, contrary to the golden ephemerality of the 2019 event.

The launch and moderation was conducted by Verónica Conte (editor, researcher at CIAUD-FAUL and CEC-FLUL), inviting to speak, before opening the dialogue to those present, Cristiana Vasconcelos Rodrigues (Professor of Literature and Literary Studies in Universidade Aberta, researcher CEC-FLUL), Maria João Durão (author, Professor at the Faculty of Architecture of the University of Lisbon, coordinator of the Colour Laboratory and the Colour and Light Research group, researcher in the field of colour in terrestrial and aerospace architecture), and Júlio Martin Fonseca (author, Professor at Universidade Aberta, researcher at CLEPUL – FLUL and Artistic Director of the Academic Theater at the University of Lisbon). We were able to observe the publication's graphic path in a presentation by Joana Perry (graphic coordination, researcher at CIAUD/FA-UL), and we ended the moment with a toast to this much needed and urgent celebration of colour and poetry.

As our associate and author João Brehm wrote in a chat comment, on the event: "in a world with such a crucial changing, the importance of colour and poetry are essential to save us as human beings"

Online publication is available at: <https://www.calameo.com/books/000667279f82aede45fc?authid=7uFcgxiSb2v>

Presentation is available at: <https://partecec.wordpress.com/parte-pensar-praticar-partilhar-perturbar-provocar-arte/eventos/parte-recolhas-poeticas-1-e-urgente-a-cor-amp-a-poesia/>



**SLOVENIA** Slovenskemu Združenju Za Barve (SSF) COLOURS OF MY HOME

Due to the COVID-19 pandemic we were forced to spend most of the year 2020 (including the spring) in isolation in a safe shelter of our homes. Nevertheless, colours are always present around us. The Slovenian Society for Colours (Slovensko združenje za barve) and the students of Graphic and Interactive Communications at the University of Ljubljana, Faculty of Natural Sciences and Engineering celebrated the International Colour Day 2020 by preparing a series of photos under the title "Colours of my home".



**SWITZERLAND and RUSSIA**

AIC Study Group on Environmental Colour Design (SG ECD)



In times of social distancing policies, lockdown, self-isolation, and quarantine to fight the Covid-19 pandemic we celebrate 21 March International Colour Day with the announcement of the publication of Color Culture and Science Journal, Vol. 12, no. 1, (2020). This CCSJ special issue gathers together a selection of extended papers presented at the First Russian Congress on Color (FRCC2019) in Smolensk. We warmly thank Editor-in-Chief Prof. Maurizio Rossi and his editorial staff for giving us the opportunity to publish this special issue. We also express our gratitude to the authors and reviewers for their contributions.

Index&Editorial  
Verena M. Schindler, Yulia A. Griber, pp. 01-08.

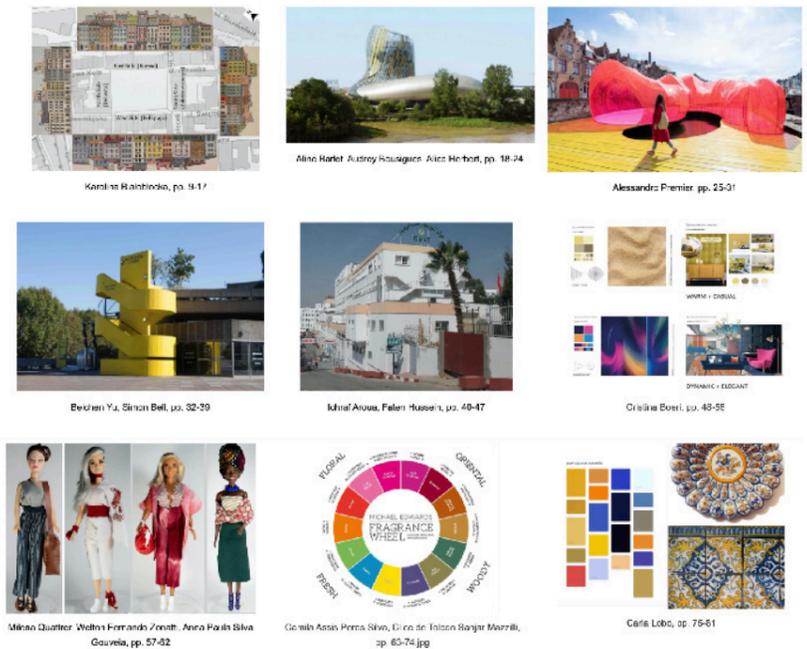
- PAPERS
- Three colour design proposals for the Market Square in Warsaw – Karolina Białobłocka, pp. 9-17;
  - Color as a sign of urban transition in the city of Bordeaux – Aline Barlet, Audrey Bousigues, Alice Herbert, pp. 18-24;
  - Colour design of textile architectural envelopes: an initial study – Alessandro Premier, pp. 25-31;
  - Emerging colours: new trends, demands and challenges in contemporary urban environments – Beichen Yu, Simon Bell, pp. 32-39;
  - Color analysis of birth space ambiances – Ichraf Aroua, Faten Hussein, pp. 40-47;
  - An educational experience about color emotion and its design implications – Cristina Boeri, pp. 48-56;
  - Color Lab IFRJ: practical color exercises for fashion courses – Milena Quattrer, Welton Fernando Zonatti, Anna Paula Silva Gouveia, pp. 57-62;
  - Does chromatic lightness have an impact on the perceived odor of Brazilian perfumes? – Camila Assis Peres Silva, Clice de Toledo Sanjar Mazzilli, pp. 63-74;
  - Ceramic products and their chromatic 'DNA' markers – Carla Lobo, pp. 75-81;
  - Approaching ecological ambiguity through a non-divisionary understanding of colour in art – Yulia Kovanova, pp. 82-88.

COLUMN  
COLUMN: BOOK REVIEWS  
Verena M. Schindler, pp. 89-92.

The column includes reviews of three books addressing colour in urban and architectural design:

- Jean-Philippe Lenclos: Painter & Designer (2017);
- Colour Strategies in Architecture (2015); and,
- Farbraum Stadt: Farbkultur in Winterthur (2019).

Verena M. Schindler, Art and Architectural Historian, Zollikon, Switzerland  
Yulia A. Griber, Smolensk State University, Smolensk, Russia  
Co-Chairs of the Study Group on Environmental Colour Design



## FUTURE CONFERENCES

### 2021 14th AIC Congress



**August 30–September 3, 2021 - Milan, ITALY**

Venue: Ca' Granda, Via Festa del Perdono, 7 Milan 20122 Italy

Chair(s): Maurizio Rossi, Alessandro Rizzi

Website: <https://www.aic2021.org/>

Organized by Gruppo del Colore



### 2022 AIC Meeting "Sensing Colour"

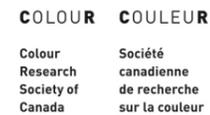


**June 13-16, 2022 - Toronto, CANADA**

Venue: OCAD - Ontario College of Art and Design University

Chair(s): Doreen Balabanoff, Robin Kingsburgh

Organized by Colour Research Society of Canada



2023



**Chiang-rai, THAILAND**

Organized by Color Society of Thailand

2024



**São Paulo, BRAZIL**

Organized by Associação ProCor do Brasil

2025



**Taipei, TAIWAN**

Organized by Color Association of Taiwan

## AIC 2020 STUDENT PAPER AWARDS

### 2020 Recipients

On Nov 27, 2020 Vien Cheung, AIC President, presented the Student Paper Awards at the AIC 2020 Symposium in Avignon, France. This is the second time running of the AIC Student Paper Awards. We had 12 reviewers this year that we appointed from the AIC Executive Committee, members of the Study Group on Colour Education and Editorial Panel of the Journal of the AIC. All the student papers are of high quality and thus it was a tough competition amongst the final 19 Student Papers to come up only 6 as the finalists for this Awards scheme.

**First Prize - Federico Grillinia** - Norwegian University of Science and Technology, Norway

Mixing models in close-range spectral imaging for pigment mapping in cultural heritage

**Second Prize - Aiman Raza** - Université de Lyon, France

Dominant color and Image color composition retrieval from complex images

**Third Prize - Yuan Tian** - Norwegian University of Science and Technology, Norway

The impact of individual observer color matching functions on simulated texture features

### Honorable Mentions

**Morgane Gerardin** - Université Grenoble Alpes, France

Correlation between micro-structural features and color of nano-crystallized powders of hematite

**Zoriana Lotut** - University of Warsaw, Poland

Organic paint: Anthocyanins at the service of contemporary art

**Haruno Tsuda** - Tokyo University of Science, Japan

Verification of the validity of the perceived colour measurement method using tablet devices in architecture

### *AIC Student Paper Awards*

*Started in 2018 with the goals is to encourage students to present their work at the AIC meetings and to benefit from interaction with the international colour community.*

*Applications must be substantially related to the subject of colour, but may be based in any discipline or mix of disciplines. Both research-based and practice-based work will be considered.*

*There are six awards given, with a prize of \$1,000 AUD for the winning submission, \$600 AUD for the first runner-up and \$400 AUD for the second runner-up. Three papers will be awarded honorable mention.*



// ARGENTINA //

## Grupo Argentino del Color

ACG - Argentine Color Group

In 2020, the Grupo Argentino del Color turned 40 years old - 1980 – September 8 – 2020



Logo commemorating 40 years of the GAC

In September 8, 1980, the GAC was formed in the city of Buenos Aires. There are many events, publications, encounters, meetings, exchanges and knowledge that we have shared for so many years and through different efforts.

We want to acknowledge the support of each GAC partner and the work of each Board of Directors in these 40 years, through the list of those who have headed it:

- 1980-1986: President: Roberto Daniel Lozano - Secretary: Juan Román Jasinski
- 1986-1992: President: Roberto Daniel Lozano - Secretary: Antonio Alvarez
- 1992-1994: President: Gustavo Adrián Defeo - Secretary: José Luis Caivano
- 1994-2000: President: José Luis Caivano - Secretary: Antonio Alvarez
- 2000-2004: President: José Luis Caivano - Vice President: Juan Luis Ferrari (2000-2002) - Vice President: María L. F. de Mattiello (2002-2004)
- 2004-2008: President: María L. F. de Mattiello - Vice President: Mauricio Rinaldi (2004-2006) - Vice President: Omar Burgos (2006-2008)



Buenos Aires, 2016: First members of the GAC of 1980, together with the board of directors and partners in the act of recognition as honorary members.

- 2008-2012: President: Omar Burgos - Vice President: Cristina Manganiello
- 2012-2016: President: María Paula Giglio - Vice President: Cristina Manganiello (2012-2015, passed away in 2015)
- 2016-2020: President: María Paula Giglio - Vice President: Anahí López

Since its inception, the GAC aims to stimulate studies and research on color and make its results known, disseminate information in all areas related to color, promote links and exchange with similar associations, maintain a specialized documentation center, integrate the different fields from which can be addressed the study of color: science, technology, art, design, industry, business, etc.

We want to thank each partner for building the GAC together. To the AIC and to all the institutions and members of the scientific and organizing committees of the different academic meetings, and to all the participants of all academic and artistic activities.

### GAC PHOTO ALBUMS

As part of the celebrations, we started the GAC PHOTOS campaign. We request that you share digital or digitized photos of events organized by the GAC or of those in which GAC partners participated, which allow us to reconstruct our history, mainly from the early years. They should be sent to the mail: [gac@fadu.uba.ar](mailto:gac@fadu.uba.ar)  
Indicate in each photo: event or reason, place, date, people who appear in the photo, etc.



Buenos Aires, 1989: 6th Congress of the International Colour Association

// AUSTRALIA //

## Colour Society of Australia CSA

As with so many other countries in 2020, Australia faced social lockdowns, isolation, travel, and limited possibilities for any physical meetings, seminars, site visits and conferences. However, Australia fared better than so many other countries in this pandemic and saw low mortality numbers and infection rates. It has been reported that art and creative supplies sold extremely well online during our winter season which takes place during the middle of the year.

Our New South Wales Division, our largest membership group and the most active faced the year by organising and presenting wonderful webinars on different aspects of colour which we were able to enjoy. Many of us across Australia also followed and enjoyed colour presentations from other colour groups from around the world, totally possible in this world of technology. The scheduled times of these overseas meetings often meant viewing at odd times of the day and night.

Webinars organised and presented during this period included Virginia Handel who spoke on 'A Colour Journey Through the Loire Valley', showing interiors and exteriors of various examples of French architecture and interior design. Abstract painter Dr Liz Coats in 'Colour Notes' showed paintings from throughout her long career, and shared ideas on colour usage in her work. British architectural paint researcher, consultant and author Patrick Baty spoke in 'The Paint Detective' on his work on historical colours in the restoration of a number of very beautiful, and very large period buildings and houses across Europe. 'Paints and Paint Making' with Michael Harding in the USA who explained his methods of creating artist colours and showed us some of his own works. 'What is

a Colour? - Scientific Opinion about Colour and Colour Measurement' with our NSW Chair and Vice President Dr David Briggs was pre-recorded and posted on our CSA website for International Colour Day.

Only one live event was held in February in NSW - 'Heritage to Contemporary Projects' presented by Murobond Paints discussing how their paint products were used with architects and designers.

With Victoria in lockdown and in strict isolation from March until November, no meetings were possible - instead members were able to share in the terrific selection of webinars and virtual presentations from all sources. It is hoped that these issues will ease and will enable gallery visits and talks to take place.

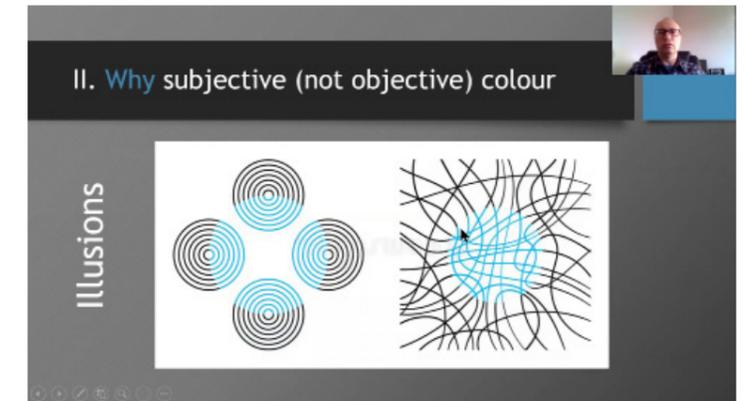
Our Western Australia division hosted actual events including a visit to the Castaway Sculpture Awards where local member Sean Adamas was exhibiting one of his works. 'Walking, Looking, Seeing' was a local tour with long time member Juliet Albany, and this division continues to organise many outdoor events for their group visiting artists and galleries, wildflower gardens and other meetings. Because of the growing constraints and concerns of COVID-19, the well-planned national Colour Society of Australia live conference scheduled for September 2020 in Sydney was wisely deferred until March 2021, and this will take place in a virtual format. The list of speakers is certainly impressive and the programme is very diverse discussing colour in design, art history and theory, education, science, and philosophy - and should see a further growth in our membership numbers. Hopefully a number of our international colleagues in colour

will be encouraged to 'attend'. We will be able to report on this in the next AIC annual review.

Our CSA annual general meeting held in December via Zoom, saw President Jean Pretorius step down, and our Vice-President and New South Wales Division Chair David Briggs elected as our new National President. New national committee members were also elected.

Our journal Spectrum is shared with financial members, continues to be well read, and is released 2-3 times each year, plus the occasional newsletter with updates on activities. Our editor Julie Blackmore is always looking for colour-related articles and would welcome any input from our international colleagues.

The Colour Society of Australia has updated and improved our website improving our connections to our colleagues and peers, and our regular postings on social media find good responses and is an excellent means of communication. [www.coloursociety.org.au](http://www.coloursociety.org.au)



Presentation by Dr David Briggs - 'What is a Colour?'



Virginia Handel - 'A Colourful Journey through the Loire Valley' A richly decorated salon



Patrick Baty - 'The Paint Detective' - a beautifully restored decorated wall



The Paint Detective - tools of the trade in Patrick Baty's office



// BELGIUM //

## Interdisciplinary Colour Association Belgium ICA-Belgium

2020 was a very challenging year for ICA-Belgium. As everyone else, we too had to cancel or postpone all our planned events, some of them at the very last moment. We hoped that the end of the year would bring a more favourable situation and lower numbers related to Covid-19. We were very much looking forward to the collaboration with Design Museum Gent and the workshop we were preparing for their exhibition Kleureyck: Van Eyck's Colours in Design. Nevertheless, only a few weeks before the workshop, the museum, along with others in Belgium, had to close its doors and cancel all the programs, in the fight against the virus.

Inspired by many other organisations, we embraced the power and possibility of the online events and decided to launch a series of online Colour Talks, starting with International Colour Day on the 21 March 2021, followed by three more in April, May and June, to be continued in the autumn. We also plan to organise Colour Walks, thus moving our events to the outdoors, exploring the colour in the city in smaller groups.

### REPORTS BY ICA-Belgium MEMBERS

Our members didn't give up in the face of difficulties caused by the Covid pandemics. We wish to celebrate their resilience, ingenuity, good will and perseverance by highlighting the work and future plans of some of them.

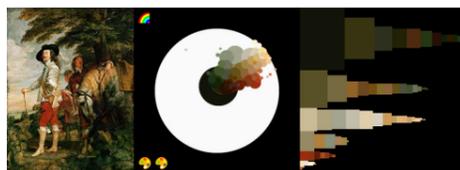


Fig. 1: Antoon van Dyck: Charles I on the hunt (limited palette, no complementary colours)

### Alain Huet

chromapicture.com

ChromaPicture is a colour analysis system that quantifies the colours in an image and displays the statistics in two ways:

- on the chromatic circle
- in clusters in L\*a\*b\* space
- Indices are calculated:
- the extent of the palette (number of colours)
- chromatic dispersion (average distance of the identified colours from the average colour of the image)
- chromatic complementarity (based on opposite colours on the chromatic circle)
- 1,500 works (from Antiquity to modern art) were analyzed and published on the website chromapicture.com.
- Two examples in the appendix illustrate the system:
- Antoon van Dyck, "Charles I on the hunt" (limited palette, no complementary colours) (Fig. 1)
- Vincent Van Gogh, "Cafe terrace at night" (contrasts and complementary colours) (Fig. 2)

The algorithm is described on the website and visitors can analyze their own images online.

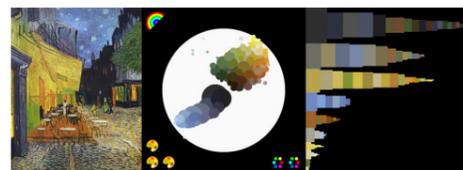


Fig. 2: Vincent Van Gogh: Cafe terrace at night (contrasts and complementary colours)

### Felix A. D'Haeseleer

<https://leseminairedecouleurs.wordpress.com/>

The Spring Séminaire de couleurs had to be postponed till Summer, al fresco (Fig. 3); the Fall one and an extra one, in English, happened as scheduled be it for a few instructive didactic challenges for the second work session of each of them. The few hours of the color course I still teach at La Cambre also took place live. For the Brussels Architectural Heritage day, I gave a presentation of the NCS Color Atlas on the terrace of a remarkable brutalist building (Fig. 4).

My research on Andreas Kornerup's Advanced Ink Mixing System (1967) made a big jump ahead. This stunning scarce book on color will be the subject of a public presentation here in my library or wherever I am invited.

From my den, I could attend several interesting conferences all over the world that I couldn't have afforded to attend live. In retrospect, I have been very lucky with the unpredictable see-saw health regulations because I can only teach color perception live; hence I am also grateful to the weather forecasters, for I often taught outside this past year not having to worry about the right artificial lighting either.

### Caroline Dujardin

[www.carolinedujardin.net](http://www.carolinedujardin.net)

For the past ten years, I have designed, developed and delivered a training course (in French) on colour for colour practitioners, amateur or professional artists and teachers in the arts education sector.

This training course Seeing, speaking and practising colour (in 5 modules) covers the theoretical and practical basics of using colour. Specific aspects of colour practice that are of concern to visual artists and professionals confronted with the choice of colours and colour advice are developed and tested in four more specialised modules.

In 2020, I proposed a conference theme Colour in the work of Van Eyck followed by a colour research workshop (Fig. 5).

In addition, I also offer another course Colour, Space and Habitat, which deals with the theoretical and practical aspects of colour in space and architecture. I am currently working (for 2021) on this training to develop it for architects and interior design professionals.

### Vinciane Lacroix

<https://www.vincianelacroix.net>

Happy colorful year to all! Below a very Belgian and still up-to-date postcard available on my blog (<https://www.vincianelacroix.net/les-mots-et-les-couleurs-meilleurs-voeux-pour-2021/>), The Vaccine Empire, a tribute to Magritte (CC-BY-SA V.Lacroix) (Fig. 6).

My challenge was to publish 21 articles, each one addressing a different color issue. First, the scientific aspect is considered, then works from old masters and contemporary artists are analyzed. Finally, a call for action encourages the reader to address the issue by himself, as I do too. 17 challenges have been published so far (<https://www.vincianelacroix.net/category/defi/>). For example, challenge #7 is devoted to the color palette at dawn and dusk with inspiration from Whistler, Degouve de Nuncques or Karin Hanssen among others.

Arcachon Bay at dusk (© V. Lacroix) (Fig. 7)

The plan for 2021? Translating all the articles in English (on a new blog) and publishing a series on "Teaching colors" on both blogs, in English and French.

### María Boto Ordóñez

<http://laboratorium.bio/>

Participation in the exhibition Kleureyck. Van Eyck's Colours in Design. Design Museum Gent, Belgium.

<https://www.designmuseumgent.be/agenda/kleureyck>

Participation in Design Dialogues. Design x Colour. Design Museum Gent, Belgium. <https://www.designmuseumgent.be/agenda/design-colour>

Beginning of the new research project Ecology of Color in collaboration with the designer Heleen Sintobin funded by the Arts Research Fund of University College Ghent (Fig. 8).

Microalgae Awards 2020 Wild Card Category Silver Medallist with the project Clean Colour: Sustainable printing by transforming waste streams into colourful microalgae pigments. <https://bestmicroalgaeawards.org/uncategorized/best-microalgae-awards-congratulates-winners/>



Fig. 3: Felix A. D'Haeseleer Séminaire de couleurs



Fig. 5: Caroline Dujardin: Workshop Colour in the work of Van Eyck



Fig. 6: Vinciane Lacroix: The Vaccine Empire



Fig. 7: Vinciane Lacroix: Arcachon Bay at dusk

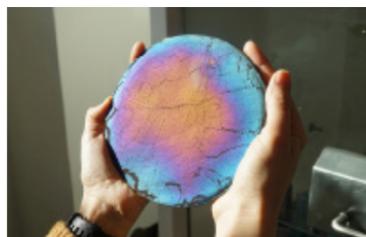


Fig. 8: Van Eyck's Colours in Design. Design Museum Gent\_cc Filip Dujardin



Fig. 4: Brussels Heritage Days Color 2020



// BRAZIL //

## Associação ProCor do Brasil

PROCOR - Colour Association of Brazil

On September 22, 2020, the Brazilian Day of Color was celebrated, a date established by ProCor in contact with Mr. Bruno Covas, former Mayor of the city of São Paulo, under Law No. 14,913. ProCor celebrated the day, in an unprecedented way with an online event and with great success, with 195 registrants! Initially, we would only use the Zoom tool, which soon reached full capacity, so we opened a YouTube link to accommodate all subscribers. We had the participation of paint manufacturers, color solution providers, architects, decorators, interior designers and academic experts. Picture 1 shows a screenshot of the Zoom meeting.

The event had the precious sponsorship of ProCor member companies: COLORMIX, DATACOLOR, LECHLER DO BRASIL S.A, LUKSCOLOR TINTAS, RENNER SAYERLACK, SHERWIN WILLIAMS TINTAS and SINTEGLAS ACRYLIC AND SPECIAL GLUES and 2AGOVONI, companies that honor us! The event was supported by ProCor partners, ABA, ABRAFATI, AGNELO EDITORA, DESIGN | ESPM, JORNAL DO PINTOR, MORRELL EDITORA, PAINT & PINTURA, SHOW DO PINTOR, SITIVESP and PAINTS AND VARNISHES.

The opening of the event had the honorable presence and words of the President of São Paulo Owners of Paints Industries' Union (SITIVESP), Mr. Douver Martinho. Following the opening, the event was attended by the honorable presence and words of the Executive President of ABRAFATI (Brazilian Coatings Manufacturers Association), Mr. Luiz Cornacchioni. The President of ProCor, Profa. Dr. Paula Csillag, presented the entity and the celebration of the Brazilian Day of Color. According to her, this type of event enhances synergies and

partnerships, promoting interaction between academia and industry. ProCor Vice-President, Patrícia Fecci, presented events held by ProCor in 2019. Next, an In Memoriam tribute was paid to Mr. Antonio Carvalho Barbosa, who was responsible for the contact between ProCor and then Deputy Bruno Covas for the idealization of the Brazilian Day of Color.

Pictures were presented of ProCor's headquarters, which is at FIESP building, with a special led panel artwork made for the Brazilian Day of Color. Picture 2 shows this amazing work organized by SITIVESP.

After the opening, there was the main lecture, by architect Eduardo Oliveira, on "Color in the Personalization of Environments". After the lecture, there was a presentation on ProCor's participation in AIC2019 in Buenos Aires, with Profa. Dra. Ana Rezende and Prof. MSc Francis Rodrigues da Silva. Next, there was the Academic Communications Panel on Color, with a presentation by Profa. Dr. Camila Assis Peres da Silva, ProCor member, Professor at the Federal University of Campina Grande. Then there was the Member Projects panel with the presentation by Daniella Couto, ProCor member, designer and gallery owner.

After these, there was the Panel of Sponsors of ProCor. In this panel, each of the companies had 10 minutes to make a presentation telling news and trends offered by their company. In alphabetical order, presentations were made by representatives of COLORMIX, DATACOLOR, LECHLER DO BRASIL S.A, LUKSCOLOR TINTAS, SHERWIN WILLIAMS TINTAS and ACRYLIC SINTEGLAS AND SPECIAL GLUES.

At the end, the participants were able to ask questions. Feedback on the event were most positive!

For those who missed the event, this is the YouTube link: <https://www.youtube.com/watch?v=81JVWqsKyxQ>

Picture 3 shows the invitation of the event.

For the celebration of the 2021 International Color Day, ProCor will offer a course on Colorimetry and Color Management, for ProCor members only, offered by DataColor, one of ProCor's recent members.



Picture 1: Screenshot of the Zoom meeting.



Picture 2: ProCor's headquarters, which is at FIESP building, with a special led panel artwork made for the Brazilian Day of Color, organized by SITIVESP.

Comemoração do  
Dia  
Brasileiro  
da Cor 2020

**PRO<sup>®</sup>  
COR  
BRASIL**

faça aqui sua  
inscrição  
gratuitamente

Terça-feira,  
22 de setembro de 2020

Via Zoom (o número de reunião  
será enviado em breve)

vagas limitadas

**Programação**

9h00 – Abertura  
Com o Sr. Douver Martinho, Presidente do SITIVESP,  
o Sr. Luiz Cornacchioni, Presidente-Executivo da ABRAFATI,  
a Sra. Patrícia Fecci, Vice-presidente da Associação ProCor do  
Brasil,  
e a Profa. Dra. Paula Csillag, Presidente da Associação ProCor do  
Brasil.

Homenagem  
Ao Sr. Antonio Carvalho Barbosa IN MEMORIAM.

10h00 – Palestra  
A Cor na Personalização de Ambientes  
Com Arq. Eduardo Oliveira

Panel  
Apresentação sobre AIC 2019  
Comunicações Acadêmicas sobre Cor  
Projetos de Associações

Panel  
Apresentações das Empresas Patrocinadoras da ProCor

Perguntas

“Instituto Eduardo Oliveira, atua no mercado desde 1962. Nesta palestra, a partir de referências de  
referências artísticas, mostrará diversos projetos executados em sua obra por meio de painéis personalizados em  
suportes como paredes, vitros, cerâmicas, telhas, ferragens, fiação de vidro, chapas de alumínio, entre outros.  
Também o propósito de inovar as possibilidades de personalização das espaços arquitetônicos por meio de  
técnicas digitais de impressão e interação entre a indústria tradicional da manufatura e as novas soluções  
digitais, mostrando exemplos de projetos diferenciados que estabeleceram um novo diálogo entre as imagens e suas  
aplicações para as atividades produtivas do mercado.”

Patrocinador: **PRO<sup>®</sup>  
COR  
BRASIL**

Empresas Patrocinadoras da ProCor:

**colormix** **datacolor**

**LECHLER** **LUKSCOLOR** **SAYERLACK**

**SHERWIN WILLIAMS** **SINTEGLAS**

Associações:

**ABA** **ABRAFATI** **DESIGN | ESPM**

**Jornal do Pintor** **MORRELL** **PINTURA**

**Show do Pintor** **SITIVESP** **TINTAS & VARNISHES**

Picture 3: Invitation of the event. The web version had a special feature with changing color!

// BULGARIA //

## Colour Group - Bulgaria

In 2020 the “Colour Group – Bulgaria” Association carried out its scientific research and promoting activities in the area of colour science by organising virtual meetings between the members and publishing activity.

At the beginning of the year the traditional meeting of the members of Colour Group – Bulgaria presented the Catalogue of the general photographic exhibition “Architectonic details”. The Catalogue is published in a collection “Color and Light in Architecture”, Volume 6, Sofia, 2019 (ISSN 1314 – 6564). Its compilers are Doc Dr Arq Anna Avramova and Dr Arthis Ralitz Gueleva. It contains photographs with personal annotations by 29 different artists. In the accompanying text of the Catalogue “Architectural details as an artistic and methodical challenge” Dr R. Gueleva analyses the diverse tectonic details presented in the photographs of the members of the Group in the context of their presentation as an object of artistic recreation of our surroundings and as an element of the preparation of visual materials for educational purposes. Doc Dr Marieta Konova, Head Asst Dr Arq Svetoslava Andreychin and Dr Angela Andreeva participated in the curating of the exhibition.

During the discussion that were conducted in 2020 it was decided that the celebration of the 40th anniversary of the creation of “Colour Group – Bulgaria” (1980 - 2020) will be postponed to the second half of 2021. The program includes the following events:

- Official reunion of the members of “Colour Group – Bulgaria” and the awarding of some of the members with the distinction “Honorary member”;
- Presentation of the new publications of Colour

Group – Bulgaria.

- General exhibition “The colours” with selected works from members of the Group;
- Scientific conference “BALCANCOLOUR 5. Colour in all directions”.

The conference participant includes researchers and business representatives from Bulgaria and abroad who wish to present their investigations in the area of chromatics, as well as their practical applications. The information for the event and the terms of participation are available via enquiry to [colorgroup@abv.bg](mailto:colorgroup@abv.bg).

The early preparation for the events will continue as planned. The term for applications for participation in the conference and exhibition that will take place in Sofia (according to the circumstances it could be attended online or in-person) ends on 31st May 2021.

At the beginning of 2021, the following members of Colour Group demonstrated excellent performance in the area of colours - Dr Elena Krasteva - artistic photography exhibition “OUTSIDE” and Doc Dr Velichka Minkova - artistic exhibition “AT THE BEGINNING THERE WAS THE NET”. Notwithstanding the specific circumstances, both exhibitions were very successful and contributed to the popularisation of subjects related to colour theory and chromatics in the public area.

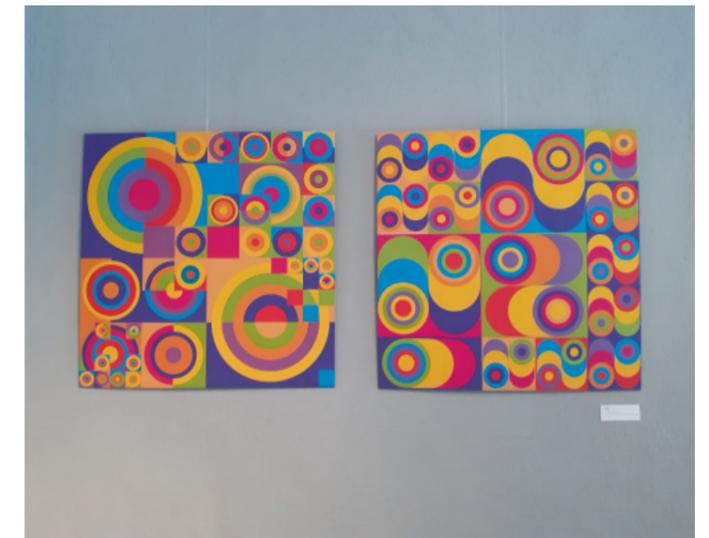
2021 is anticipated for the preparation and presentation of the exhibition “Colour and Water” which will be held in connection with the celebration of the International Colour Day (21.03.2021) and the International Day of Water (22.03.2021). In case of extension of the anti-epidemic measures,

the presentation of the exhibition will be held at our earliest convenience.

The International Colour Day will also be celebrated with the presentation of the scientific monographic of the series “Library – Colour” – “Architecture and light. Contemporary trends.” by Dr Arq Gergana Stefanova (ISBN 978 – 619-7226-15-7).

2021 is also for the continuation of the “Bulletin of Colour Group – Bulgaria”. The work on the informational web-page of the Association, <http://bgcolorgroup.org/>, is currently continuing.

The board committee of the Association consists of Chairman Dr Ralitz Gueleva-Tsvetkova, Secretary Ludmila Hristova, members Doc Dr Arq Anna Avramova, Doc Dr Dimitar Dobrevski and Head Asst Dr Svetoslava Andreychin.



Velichka Minkova



Arch.det. Catalogue - cover



Elena Krasteva - poster



// CANADA //

## Colour Research Society of Canada CRSC

### REVIEW

The CRSC (Colour Research Society of Canada / Société canadienne de recherche sur la couleur) had an active year, as we continued our organization for the upcoming AIC Conference in Toronto, June 13-16, 2022 with the theme Sensing Colour. We have been working on developing our website, invited speakers, venues, programming, and more!

The CRSC continued to develop our profile and build our programming in 2020, as we shifted to

an online format for our Kaleidoscope Lecture series. The online format opened up possibilities of having speakers and attendees from across the country and abroad. Our attendance increased substantially.

We have been working on a social media campaign to highlight our organization, with strong contributions from Board member Paul Haft and his marketing and communications team at Haft2. A new student intern position has aided us in these efforts and

provided opportunity for a design student from OCAD University to learn about Canadian and international colour research. We are also working on developing Members' profiles, and other initiatives to enhance membership value.

Our Student Award initiated last year has been expanded to include undergraduate and graduate

awards and has been generously funded by donations from Board members, including a 3-year commitment from Haft2. The winners will be announced on International Colour Day, at our Annual General Meeting.

The AIC 2022 Sensing Colour logo and webpage have been launched, and development is ongoing – watch for additional developments at <http://www.aic2022.org/>.

The CRSC is developing a Land Acknowledgement statement acknowledging indigenous land treaties and injustices perpetrated on indigenous peoples and stating our awareness of and commitment to decolonisation through challenging and changing educational and cultural exclusionary practices. We also are developing a Diversity and Equity statement to post on our website(s) as fundamental to our organization in its work and programming. Board Members this year included Co-Presidents Doreen Balabanoff and Robin Kingsburgh; Vice President Vivian Lo; Secretary Judith Tinkl; Treasurer Sharyn Gitalis; and Members at Large Brian Funt, Paul Haft, Ilene Sova, Deirdre Tomlinson, Kathleen Parle, and Jeff George.

Our events in 2020 included:

- June 2020 AGM – online
- Presentation by Inaugural Student Award winner: Xiangpeng Hao (Computer Science, Simon Fraser University): A Multi-illuminant synthetic image test set
- Oct 8, 2020: Coloured Inks and the Chemistry Behind Tattoos, by Chris Caputo (York University)
- Oct 28-30, 2020 LivABLE Environment Conference
- Sharyn Adler Gitalis co-led the seminar



Us, AGNS Yarmouth, 2019, detail Sara Hartland-Rowe painting

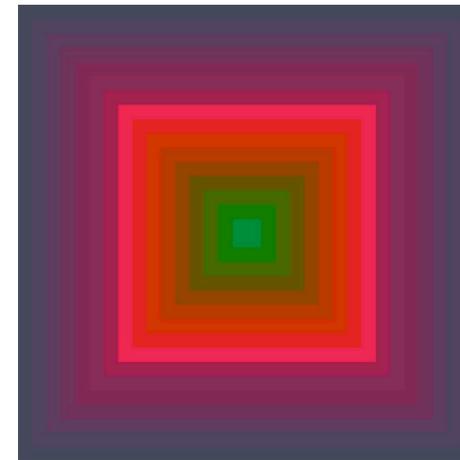
“Colour and Light for a LivABLE Future” with Deborah Gottesman

- Vivian Lo moderated three panels on Indoor Air Quality, and Putting a Healthcare Design Lens on Planning, Designing, and Building Residential Projects
- Nov 10, 2020: Learning to Walk with Colour, by Sara Hartland-Rowe (NSCAD University)
- Nov 26, 2020: What are the “universal constraints” on basic colour terms? by Don Dedrick (University of Guelph)



Logos for Kaleidoscope lecture series, by Haft2

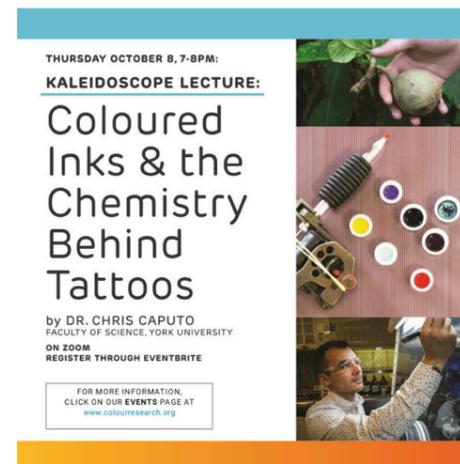
AIC 2022 conference logo, by Haft2



Orange Pop Pink, Digital, 32x32, 2019, Peter Owusu-Ansah, profiled member on website (2020)



Sarah Hartland-Rowe



Chris Caputo talk



Michael Brown talk



// CHILE //

## Asociación Chilena del Color CCA - Chilean Color Association

The mural "The Membrillar Steps" has been made with the collaboration of more than 1,400 people of different ages in the "Gaudi Cultural Center" workshops in the city of Rancagua, Chile. The work is inspired by nature, love and the architectural work of Gaudi. It was made with more than 100,000 pieces of pottery painted by hand, using the "trencadís" technique (broken mosaic) and is 80 meters long and 3 meters high. The person in charge of the project and teacher of the workshop was the architect Beatriz Valenzuela Van Treek.

### CROMOTOPOS

The exhibition CROMOTOPOS by Jorge Young, collects the work developed in recent years on color in space. The exhibition is presented as a large installation mounted in the space of the main gallery of the Valparaíso Cultural Park. It is a journey



Exhibition CROMOTOPOS by Jorge Young

through site-specific luminous works, paintings, reliefs and video that introduce us to a poetics of light and color deployed in space. The assembly of the exhibition leads the viewer between groups of works that are posed in a specific of intimacy bodily relationship towards chromatic perception, either by activating the visual system by observing the color contained in a frame or by inhabiting an overflowing field of color that incorporate us into the work. <http://www.jorgeyoung.art>

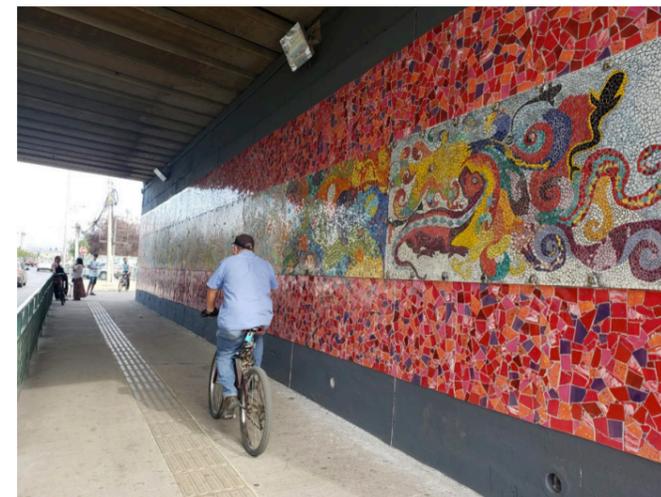
### FROM THE PUNA TO THE COAST, RUPESTRIC ART OF THE ATACAMA DESERT

"From the Puna to the coast" is a publication by Bernardita Brancoli that brings together various investigations of rupestric art painting from the Atacama Desert in Chile. The paintings are distributed from the high Puna, intermediate valleys and coast. They are diverse in styles, themes, figures and compositions. The objective of the field registration was to make an analogous two-dimensional drawing of each of the paintings, faithful to the original. The drawing was then transferred to a digital register to generate a visual catalog of each of the investigated areas. Along with this, a color study of the paints was carried out to generate color palettes from the Pantone © system. The total registration resulted in a 20-color chart. The publication shows around 200 drawings made in one to five colors.

### NEW DESIGN COURSE

At the Austral University of Chile, in Valdivia city, Professor Elisa Cordero started a series of 2 color courses, of 4 months each, for the Design school. The first is called "Harmony, color and contrasts" and the second, "Color, heritage and culture". These

courses have had Ingrid Calvo, Ivar Jung, Bernardita Brancoli, Paulina Olivares and Soledad Hoces as guests. In both, students acquired theoretical and practical knowledge about creating color charts and palettes based on different criteria. They worked with colours of indigenous cultures but also with colors of international cultures, like the research made by Ivar Jung. These palettes were applied, among other products, on matte herb labels from a local store.



Collaborative mural inspired by Antoni Gaudi



Puna to the Coast - book by Bernardita Brancoli



Professor Elisa Cordero two new color course



// CHINA //

## 中国颜色学会

CAC - Color Association of China

The Color Association of China (CAC) is one of the committees of the Chinese Optical Society (COS), specialized for color science and technology. As the National Color Association, it joined the AIC in 1986, together with the Division 1 (vision and color) of China Illuminating Engineering Society (CIES). Its objectives are to encourage the research of color science and its applications in different aspects, and through seminars to exchange information and new technology about color.

### ACTIVITIES IN 2020

The 12th Asian Color Forum was successfully held on 24-25 October 2020 in Foshan with the theme of "Transformation · Reshape", in which over 500 member representatives of the association, enterprisers, designers, and color-related professionals participated.

Several expert speakers were invited from China, Japan and Korea to discuss the various color topics, including the new trends of art and design, color movement in Japanese fashion market and color trend in future, color and material trend in EV future, the color of Qing Dynasty textiles in the Forbidden City, the development strategy of industrial design under the new situation, ancient color and new flavor - the

charm of Chinese color, the relationship among space, time, creativity and design, the color design of automobile coatings and the prospect of the color trend of Chinese automobiles, and so on.

On 12 June 2020 a special exhibition entitled "Centuries of Memory and Reappearance of Yungang Grottoes" opened in the Art Museum of Zhejiang University, at which the duplicate of the No.12 Grotto, the world's first detachable 3D printed 1:1 scale digital grotto, has won widespread attention and praise as a key exhibition item. The duplicate grotto, made of polymers, originally did not have the texture of stone when its curing and forming were just finished. Then the coloration processing gave it the comprehensive historical information of cultural relics of materials, textures, colors, and etc. to reproduce the authentic appearance of the digital model and present the effect of history and vicissitude. The traditional artificial coloring methods were employed in order to seek the greatest degree of authentic reproduction. In terms of freshness and darkness of the color, the bright colors, rather than gray of the existing grotto statues, was chosen when the cave was first born. However, considering the weathering of the grotto, derived from the irresistible force of nature, no any adjustment was done while leaving the traces of man-made damage. Using mineral pigments in accordance with the ancient method, the coloring of the duplicate grotto, with an area of over 900m<sup>2</sup>, was completed in 8 months. It is understood that this is the first time in the field of cultural relics to restore the appearance of a grotto on such a scale by manually 'installing and painting colors' on the modern material base.

The project of Wahuang Temple mural is a typical case utilizing color management technology to reproduce the colors of strokes with high fidelity. Wahuang Temple, covering an area of nearly 2347.5m<sup>2</sup>, is located in Jia Village, Huozhou, Shanxi Province. It was first constructed in Ming Dynasty and rebuilt in Qing Dynasty. There are hanging sculptures and murals in Wahuang Temple, being especially famous for the murals in the main hall. The total area of murals is about 71.17m<sup>2</sup>, adopting a general view composition with buildings and trees to organically combine the characters. The colors are mainly with mineral pigments of vermilion, cyan, green, white, and yellow, and the halls, balustrades and pavilions are drawn using boundary rulers. The whole picture is interwoven with the real life of Qing Dynasty based on myths and legends. Developed by the research team for cultural heritage digitization of Zhejiang University, the color management system is employed to effectively correct the mural colors. With the help of a spectrophotometer and a spectral camera, the representative colors were extracted, identified and classified, the reference colors as well as the usage specifications for ambient lighting sources were formulated, and finally the color curves or models were established, so that the true colors of the mural surface could be restored.



Yungang Grottoes - the No.12 Grotto (the duplicate grotto) exhibition live.



The realistic picture of Huozhou Wahuang Temple murals.



Some presentations at the 12th Asian Color Forum on 24-25 October 2020 in Foshan.

// FINLAND //

## Suomen väriyhdistys

FCA - The Finnish Colour Association

The activities of the Finnish Colour Association were diminished but not entirely halted by the corona virus pandemic during 2020. An important milestone in the association's history was its acceptance as a member of The Federation of Finnish Learned Societies. Founded in 1899, the Federation "...is a national co-operative body for learned societies in Finland. It contributes to the co-operation between learned societies, supports and develops scholarly communication and publishing, and promotes awareness and usage of research results. It also supports and develops the role of its members in science policy discussion."

(www.tsv.fi/en).

### EVENTS

Only two live events for members of the FCA were possible during this year of lockdowns and quarantines. The first was a guided tour on 12th February, with the artist present, of Anu Tuominen's one-woman show Tomorrow today will be yesterday at the Kunsthalle Helsinki. The second was the awarding of the Finnish Colour Association's Iris Prize. The Iris is awarded annually to an individual or group "...for work or actions which where the use of colours has decisively improved the quality of the environment, created positive experiences, bettered the quality of life or increased safety, or in which the research of colours has advanced knowledge about colours in a significant way."

### AWARDS

This year the prize went to Ms Pirkko Holmberg for her carefully annotated and scholarly translation into Finnish of the first, "didactic" part of Johann Wolfgang von Goethe's Zur Farbenlehre (1810). The Finnish translation includes reproductions of

the original colour plates and their explanations by Goethe as well as a short excerpt, Confession of the Author, from the Historical Part. The Award was handed over to Ms Holmberg in conjunction with a public panel discussion about Goethe's colour theory. The event was organized by the book's publisher Teos and the FCA at the Goethe-Institut in Helsinki. Held on 12th March as a rescheduled International Colour Day celebration, it was the last live event by the association before the lockdowns and restrictions began in full in the Helsinki metropolitan area.

Several FCA members participated in the virtual Color Impact conference organized by the ISCC in June 2020. During the rest of the year the board of the FCA held video-conferences on a regular basis; the most important agenda being the planning of the FCA's 20th anniversary events for 2022. A kick-off event, planned together with Helsinki Design Week and the City of Helsinki, will take place already in September this year.



Discussion on the philosophical background and relevance for today of Goethe's colour theory held at the Goethe-Institut Finland. From left to right: philosopher of art Harri Mäcklin, translator and researcher Pirkko Holmberg, panel chair Harald Arnkil and artist Henri Hagman.



Pirkko Holmberg, recipient of the Finnish Colour Association's 2020 Iris Award with Harald Arnkil, Vice-Chairman of the FCA.

Photos by Hannele Kumpulainen



// FRANCE //

## Center Francais de la Couleur CFC - French Colour Center

### ACTIVITY REPORT

The main event in 2020 was AIC2020 conference which was originally planned to be held in Avignon, Popes' Palace then Théâtre des Halles. This conference became in spite of us totally virtual, due to the worldwide sanitary conditions.

The program is always available on aic2020.org and all the session recordings are available on DailyMotion (search "lutopix" and connect with password given to all participants). The wonderful sum up and the concluding remarks by Françoise Viénot are accessible here: <https://www.dailymotion.com/video/x7yyu3k> for free.



Other individual or collective events were dispatched over the whole year.

We then had to move to an undefined date the International Colour Day and the International Day of Light were several meetings were planned with the « Observatoire de Paris » and the « Palais de la Découverte ».

An internal study group called CERN dedicated to Colour, ethics and virtual restoration of works of art, succeeded in gathering its members several times, considering the COVID19 sanitary constraints.

### INDIVIDUAL MEMBER ACTIVITY

Larissa Noury (member of the Executive Committee):

Exhibitions of paintings in Marocco, Italy (Roma), Paris ART CAPITAL Fair at Grand Palais, Art Festival in Kosovo (a triptych is exhibited at the National Museum of Suhareka), Albania (Tirana), and virtual exhibitions in Austria, Turkey, Italy, etc. She published a new book on "Symbolic of Colors. Art, design, architecture" and a public presentation was organized in "La Mazarine" bookshop on 17th December.

Larissa-Noury\_Patrick-Callet\_La

François Bossière exhibited his recent paintings in Café-Galerie Kykart, Maisons-Alfort (close to Paris) from 1st to 28th February <https://fr-fr.facebook.com/kykartstation/>



Reine Mazoyer has presented several creations at "Comparisons" Fair, section sculpture singulière, from 12th to 16th February at the Grand Palais, Paris.

More informations at: <https://comparaisons.org/>  
Kévin Bideaux, « Is white skin really pink? Flesh color as a pink color in art and culture in Occident », Conferenza del Colore. Bergamo, Università di Bergamo, 3rd-4th September.

Light on painting 2020 Two days organized in La Cambre/KIK-IRPA (Brussels) 1st-2nd April 2020, by Adrien Lucca. The first day deals with light and color in the visual arts and scientific research, in search of bridges between these disciplines. The second day deals with conservation.

24th June 2020 Expert meeting with Adrien Lucca in Paris at CFC with Françoise Viénot, Laurence Tardy, Etienne Trouvers, Yves Charnay and Patrick Callet. Presentation of a new device of metameric sources and visual experiments. cf. Dailymotion

<https://www.dailymotion.com/video/x7uoi75>

<https://www.dailymotion.com/video/x7uoizx>

On 18th December our doyenne Jacqueline Carron celebrated her centenary. We were very happy to remember her active participation in « Mondial Couleur 85 » in Monte-Carlo, organized by the Centre Français de la Couleur. The team assembled in 1985 can be seen in the photo taken in Monte-Carlo Congress Palace. Jacqueline is the first lady squatting on the right. Marie-Pierre Servantie, Philippe Fagot, Robert Sève, Claudette Berset, Françoise Since, Irène Tavernier, Lionel Soulié, Michel Indergand are some identified participants. Insert image: MC-plusieurs-membres-CFC.jpg

Among our young members, in December, Joël Randrianandrasana successfully defended his PhD entitled :

« Realistic rendering of multilayer materials using transfer matrices »

Anne Varichon (CFC-EC member):

Continues her researches on textile color charts and prepare an important publication.



She has built and led seminars for creatives people of luxury houses, Has collaborated on various projects of live shows and artistic foundations, Has contributed to various publications including "What if yellow was the color of tomorrow?" signed by Frédéric Pennel, published in the online review Slate on 30th April.



Jacqueline-Carron-2017

// GREMANY //

## Deutscher Verband Farbe

**DfwG** - German Society of Color Science and Application

Deutsche farbwissenschaftliche Gesellschaft (DfwG) - German Society of Color Science and Application

A highlight in the work of the DfwG is the annual conference. The Covid-19 pandemic forced us to cancel the planned event in Stuttgart at the Research Society for Pigments and Coatings (Forschungsgesellschaft für Pigmente und Lacke e.V. - FPL) and Fraunhofer Institute for Manufacturing Engineering and Automation (Fraunhofer Institut für Produktionstechnik und Automatisierung - IPA), but also offered the chance to try out a new format. The annual meeting 2020 was held online as a one-day event on September 16th. The research institute Fogra provided the framework for a web seminar. Between 10am and 3pm, 55 participants from Germany and Switzerland took part and one participant was even connected from Great Britain. This corresponds to the number of participants at earlier face-to-face events.

The program of nine lectures offered a diverse spectrum from the field of color science. They covered the topics of color under the aspects of appearance, measurement, perception and description. In addition, non-visual light effects and the color rendering of light sources were reported on. An interesting research and a successful program.

The presentations were in detail:

Marco Mattuschka, Fogra:

Objective evaluation of the separation quality of pictorial motifs in multicolor printing

Sebastian Babilon, TU Darmstadt:

A new metric for memory color-based evaluation of white light sources

Werner Cramer, Münster:

Computing color - turning light rays into sensations

Manuel Spitschan, University of Oxford (UK):

Recent findings on the processing of light and color stimuli in the human visual and non-visual system

Christian Dietz, Konica Minolta:

Status of the work of the WG-Appearance

Donatela Saric, Fogra:

Feature comparison of five appearance measurement devices

Felix Schmollgruber, X-Rite:

Quo Vadis: Total Appearance Capture

Sandra Weixel, BYK:

New Technology for Objective Assessment of the Total Appearance of Textured Surfaces (spectro2profiler)

Michael Becker, Jürgen Neumeier - Instrument Systems GmbH:

Reproducible characterization of intended and unwanted reflections - from printed paper to emissive electronic displays.

In addition to the conference program, the general meeting took place in the afternoon. The reports from the President, Treasurer, Auditors and Secretary are summarized in the minutes.

The positive feedback from the participants testifies to a successful event. What was missed during the online event was the possibility of personal conversations on the sidelines of the meeting and the lively discussion following the presentations. We

very much hope that the next annual meeting can take place again as a presence event. The Company Image Engineering GmbH in Kerpen-Horrem near Cologne will be the host on October 6th-7th, 2021.

As usual, the DfwG communicated with its members by sending out the regular DfwG-Reports during the year. This way, all members were informed about the papers given at the 2020 Online Meeting and all other important news.

Wissenschaft  
trifft  
Farbe



Deutsche farbwissenschaftliche  
Gesellschaft e.V.

Science meets Colour & DfwG



Book - Die geheimnisvolle Macht der Farben



DfwG\_WG appearance

AG Appearance



DfwG-Reports 2020

## Deutsches Farbenzentrum

DFZ - German Colour Association

Due to the Corona restrictions, the DFZ only held one development workshop via ZOOM, the results of which should, however, remain internal. Of course, our members have had various activities, but collecting them and processing them in the form of articles is beyond the actual time capacity. So, there is nothing to report from the "Corona Year".

Nevertheless, members of the DFZ were active in several ways. As an example, among others, the interesting book "Die geheimnisvolle Macht der Farben" by Axel Buether

<https://www.droemer-knaur.de/buch/prof-dr-axel-buether-die-geheimnisvolle-macht-der-farben-9783426277874>

DIN - FNF

In 2020 the following new standards have been published:

ISO 18314-4:2020-08 "Analytical colorimetry - Part 4: Metamerism index for pairs of samples for change of illuminant

DIN EN ISO/CIE 11664-1:2020-03 "Colorimetry - Part 1: CIE standard colorimetric observers"

DIN EN ISO/CIE 11664-4:2020-03 "Colorimetry - Part 4: CIE 1976 L\* a\* b\* colour space"

For details about the work of DIN-FNF please see:

<https://www.din.de/en/getting-involved/standards-committees/fnf>



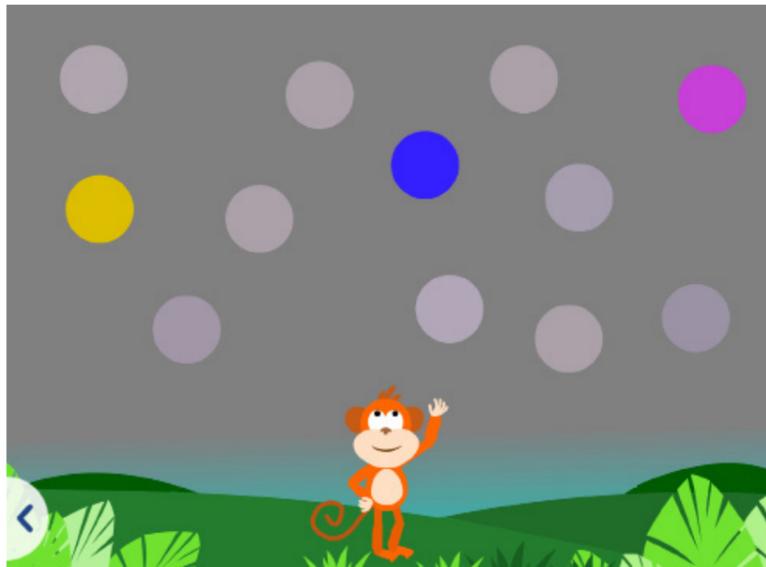
// GREAT BRITAIN //

## The Colour Group (Great Britain) CG(GB)

The Colour Group of Great Britain awarded its Newton Medal to Professor Ming Ronnier Luo in February this year, in recognition of his 40-year long career in search of the ‘holy grail of colour science’: the comprehensive colour model. The professor took a sold-out audience at City University, London, through his development of models for colour specification, colour difference evaluation and colour appearance modelling, towards a comprehensive new model. This model would be able to accurately estimate colour difference and colour appearance in numerous viewing conditions, from mesopic to photopic vision, from highly chromatic to white lightings, across varying sizes of colour gamut and displays.

For the fifth year running the International Colour in Film Conference was held at the BFI Southbank, in London between 11-13 March, now finding its

roots in the scholarly calendar as an in-depth and interdisciplinary investigation into film colour. The event was co-organised by the Colour Group (GB), the Institute of Applied Sciences (HTW), Berlin and the University of Zurich and in co-operation with the British Film Institute (one of our Patron members). Speakers were from Italy, Canada, Switzerland, France, Germany, India, the USA and the UK. The focal point of the event was a workshop on an interdisciplinary approach to investigation into film colour. Discussions ranged from restoration, preservation and digitalisation through to the science of restoration and how the human visual system enables the illusion of moving images, as well as discussions on the aesthetic and semantic values of colour in films from different eras. The highlight of the workshop was the unveiling of a new generation of archival film scanners.

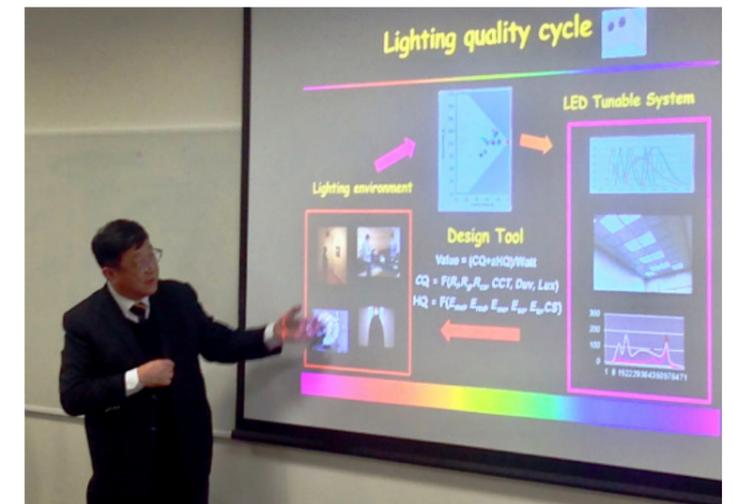


Screenshot of the ColourSpot app presented by Teresa Tang at the “Colour Perception in Colour Vision Deficiency” online symposium.

International Colour Day 2020 unfortunately coincided with the onset of the COVID-19 pandemic, forcing the cancellation of the talk “Drama and Light” by Gayna Pelham, scheduled just two days before the first UK national lockdown came into force amidst escalating limits on gatherings. The Colour Group (GB) adapted to the new circumstances, transferring to online proceedings in time to host “Colour Perception in Colour Vision Deficiency”. This event heralded the largest attendance of recent years, with 124 listeners from around the world joining to hear findings of recent scientific research into how the visual system functions when there is a colour vision deficiency present. The event featured 5 international speakers from the UK (Teresa Tang and Lucy Somers), France (Kenneth Knoblauch), USA (Alexandra Boehm) and Spain (Leticia Álvaro). Teresa Tang, from the University of Sussex, presented an app-based game developed to identify colour vision deficiencies in young children. The app “Colour Spot” uses a colourful odd-one-out game to collect reliable diagnostics of the colour vision of pre-linguistic children. Leticia Álvaro and Alexandra Boehm both presented talks related to sensitivity and the sensitivity-awareness of those with anomalous colour vision, while Kenneth Knoblauch and Lucy Somers both presented talks on the effect of notched filters on anomalous colour vision, to alter, enhance, and trigger neural plasticity in the colour vision system.



NoemiDaugaard.jpg: Noemi Daugaard presenting at the International Colour in Film Conference at the BFI in London.



MingRonnierLuo.jpg: Professor Ming Ronnier Luo presenting the Newton Medal lecture, “The Holy Grail of Colour Science” at City University, London.

// HUNGARY //

## The Hungarian National Colour Committee ICCPH

On the 10th January 2020 (pre-Covid!) Ákos Nemcsics, president of the Hungarian National Colour Committee opened his exhibition "Szin és szinergia" (meaning "Colour and synergy", a play on the Hungarian word 'szin' meaning 'colour').

In September 2020, a new art gallery was opened in the Nemcsics memorial house, former home of Prof. Antal Nemcsics, the first AIC CADE awardee and honorary citizen of the 18th district of Budapest, by the name of Gallery 'Realm of colours'. At this occasion the importance of his colour plans for the district and for Budapest were remembered, including the plans for the international airport, some of the metro stations and that of the noblest area in Budapest: the Castle district.

In November 2020, a new exhibition was opened in the Gallery Realm of colours from the works of the renowned contemporary painter, graphic artist, light artist, holographist and pioneer of laser art,

Attila Csáji. His works have been exhibited since 1966 all over the world, from the United States to India and Korea. His latest exhibition "Lights and colours – Tribute to Antal Nemcsics colour researcher" has closed on the 1st March 2021.

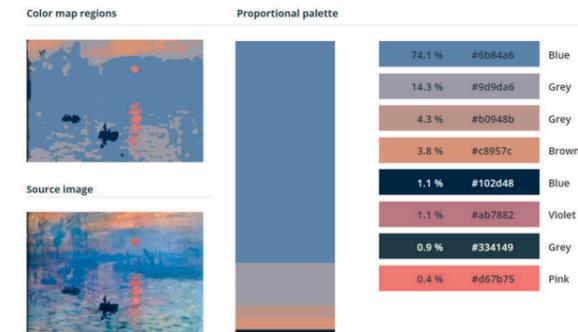
In November/December 2020 the students of the Graphic Design MA program of the Moholy-Nagy University of Art and Design Budapest (MOME) made their projects focusing on the topic of colour. The students could choose whatever question they wanted to address, and the selections were highly interesting and far-ranging, showing the endless diversity of the main theme – colour.

- The colours of the workplace-home
- Colours in higher dimensions
- Art and colour deficiencies
- Digital art based on the colour palettes of impressionists (Figures 1 and 2)
- The colours of migraine aura



The permanent exhibition in the Gallery Realm of colours.

### Extracted color palette



Colours digitally extracted from a reproduction of Monet's Impression, Sunrise (Courtesy Zsófia Kupics, Graphic design MA student of MOME, Budapest).



Digital art based on the palette of Monet's Impression, Sunrise (Courtesy Zsófia Kupics, Graphic design MA student of MOME, Budapest).

- The colours of second-hand textiles
- Colours of fine-dining dishes
- Mask colours and emotions
- Colour therapy
- The palette of tranquillity
- Chromesthesia

One of the most original projects was that of Zsófia Kupics, who extracted the colour palettes of 12 impressionist paintings (working from reproductions), and created digital artworks based on these colours. The result was a calendar illustrated by abstract digital images representing the twelve months.



Attila Csáji at the opening of his exhibition "Lights and colours".



Ákos Nemcsics (right) at the opening of the exhibition Colour and synergy.



Green cooperation by Ákos Nemcsics.



// ITALY //

## Gruppo del Colore - Associazione Italiana Colore GdC - Color Group - Italian Color Association

As every year, the main event involving all members of the Gruppo del Colore - Associazione Italiana Colore is the annual Conference. The 2020 edition, due to the dramatic epidemic of Covid-19, was managed completely virtual for the first time in the history of our Association. The Conference took place online at the beginning of September 2020 in collaboration with University of Bergamo and Associação Portuguesa da Cor, Colour Group (GB), Comité del Color (Spain), Deutsche Farbwissenschaftliche Gesellschaft and the Swedish Colour Centre Foundation.

The conference began with a series of tutorials on different topics related to colour with internationally renowned personalities: Michael Robinson talked about the international and interdisciplinary dimension of colour on car design; Rossella Cilano talked about the use of natural dyes in weaving while Arch. Riccardo Zanetta presented the connection between colour and history of the city of Bergamo.

During the plenary session, on the first day of the conference, the ceremony of the sixth edition of the Colour Award took place, which awarded Narciso Silvestrini, because he represents a leading figure, both nationally and internationally, in the field of colour theory and the application of colour systems for art and design. His knowledge in the field of colour, his teaching and dissemination skills, evidenced by splendid texts and drawings, appreciated by generations of students, have made him a point of reference for experts from various disciplines related to the world of colour.

The oral presentations were accompanied by a poster section; the papers of all the works presented

were published in the open-access Conference proceedings.

During 2020 the Association gave patronage to the conference activities of the Associazione Italiana Ricerche Pittura Antica (Italian Association for Ancient Painting Research), the "Coloré" event at the Piacenza EXPO and to the 2020 edition of the "Master in Lighting Design and Technology" organised by Politecnico di Milano.

We also recall the activity of our "Colour and Culture Science Journal" a diamond open access journal, free for readers and authors (<https://jcolore.gruppodelcolore.it/>). In 2020, we have published the volume 12 – issue 1 as a special issue that gathers together a selection of extended papers presented at the First Russian Congress on Color (FRCC2019) which was held at Smolensk State University on 18-20 September 2019. The volume 12-issue 2 instead closed the seventh year of our Journal with a collection of papers on colour and related areas in a multidisciplinary way.

Through 2020 we have been working for the organization of the international conference on "Colour Photography and Film: sharing knowledge of analysis, preservation, conservation, migration of analogue and digital materials" in collaboration with the Istituto di Fisica Applicata "Nello Carrara" of the Consiglio Nazionale delle Ricerche (IFAC-CNR) and the Opificio delle Pietre Dure (OPD). The conference will be held online on March 29-30, 2021 (<https://www.gruppodelcolore.org/la-conferenza/?lang=en>).

Lastly, despite the pandemic that is affecting us all, we were focused on the preparation of the 14th AIC

Congress, which will be organised for the first time by the Associazione Italiana Colore. The Congress will be held online from August 30th to September 3rd 2021 (<https://www.aic2021.org/>). It will be structured in compliance with the program elements required by the AIC rules:

- Opening Ceremony
- Awards
- AIC General Assembly
- AIC Working Groups Workshops and
- Closing Ceremony.

In addition, all standards required for publications and the handover of the AIC banner to AIC2022 will be respected. We are ready to welcome the participants from all over the world to the 14th AIC Congress, both as presenters and auditors, to explore together the scientific and cultural themes of human activity in which color intervenes or assumes a prominent place.



Narciso Silvestrini, winner of the Premio Colore 2020, during the award ceremony



The 14th AIC Congress 2021 logo





// KOREA //

## 한국색채학회

KSCS - Korea Society of Color Studies

The Korea Society of Color Studies was founded in 1988 and became an International Color Association (AIC) member in 1995. After hosting an AIC Interim Meeting in Seoul in 2000, the 13th AIC Congress was successfully held in 2017 in Jeju Island, which is recognized as a Natural World Heritage site. The activities of the Korean Society of Color Studies in 2020 were as follows.

Academic activities conducted by the organization included publications of four issues of its journal, two conferences, and one International Color Day commemorative seminar.

Due to COVID-19, all academic events occurred online and offline in parallel; the ICD commemorative seminar had been scheduled in early March but was delayed due to the worsening COVID-19 conditions and ultimately, the seminar was held alongside the Spring Conference in May. The organization's journal, which is registered with the National Research

Foundation of Korea, was published at the end of February, May, August, and November, as scheduled. The journal issues published during the year contained 26 papers in various fields such as color studies, design, and education, which were selected after strict screening.

The International Color Day commemorative seminar was held at the Samkyung Education Center under the theme "We, Color, and Planet" to celebrate International Color Day on May 29. At this event, members of the Korean Society of Color Studies discussed the diversity of color. Commemorative lectures given included, "Color, the 5th Dimension in Sculpture" by Bernd Halbherr, professor at Chung-Ang University's Department of Sculpture, and "Color Temperature" by Yungkyung Park, director of the Ewha Color Design Research Institute.

The conferences were academic venues where members gathered and engaged in discussions. A total of 44 academic presentations were made. The Spring Conference was held on May 29 at the Samkyung Education Center under the theme "We, Color, and Planet." Several lectures were presented: "Original City Attractions and Incheon's Color Development through Light, Color, and Design" by Cheolhee Lim, team head of Urban Design at the Incheon Metropolitan City Hall; "50 Years of History, How the Color of Highways has changed" by Injin Hwang, team head of Technology Market, Korea Expressway Corporation; and "Holographic Screen Application and Chromatic Aberration" by Hyunho Song, professor at Incheon National University's design department. The Fall Conference was held on November 20 at the Samkyung Education Center under the theme "UNTACT but Real Color." The lectures presented included "MeMeWe Branding Color Planning and Application" by Byungjin Ahn, professor at Dongseo University; "Lifestyle Category Creation with Color" by Eunyoung Koh, team head of Retail Communication at Cheil Worldwide; and "Color Therapy & Contactless Healing Color Counseling

System" by Okgi Kim, director of the Personal Image Branding Color Research Institute.

In addition, the Korea Color Awards, which were organized to contribute to the development of Korean color culture and to enhance the professionalism of the color industry, were held at Chung-Ang University on December 11 for the 18th time this year. A number of individuals, companies, public organizations, and local governments exhibited in eight categories including urban and residential environment, architecture and interior, fashion, and industrial products. A total of 11 award-winning works were selected, including "The Light Color Plan of Subong Park, One of Incheon's Top 10 Night View Spots" which received the Minister's prize of the Ministry of Trade, Industry and Energy and "GS E&C Xi Standard Color Manual" which won the Director's Award of the Korea Institute of Design Promotion. Moreover, the 2020 KSCS International Invitation Exhibition of Color Works, which celebrated its 13th annual event, was held under the theme of "COVID Colors: Color of Opportunity, Vision, Insight, and Design." Artists from Asia, Europe, and the Americas participated, and 12 of the 117 entries were selected as winners. In addition, the Student Color Contest was held for the first time in 2020. The theme was "COVID Colors: Color of Opportunity, Vision, Insight, and Design," which was same as the 2020 KSCS International Invitation Exhibition of Color Works, and thanks to the participation of many students, a total of 11 works were selected as winners.



2020 Student Color Contest



2020 KSCS International Invitation Exhibition of Color Works



18th Korea Color Awards



2020 Fall Conference



2020 Spring Conference



Award Winner of 2020 KSCS International Invitation Exhibition of Color Works



// MEXICO //

## AMEXINC

As we all know, the 2020 pandemic affected all the activities around the world. AMEXINC was not the exception; however, within this international chaos, we managed to carry out some activities despite the unexpected change in our board due to a health problem of the president.

Neither the pandemic nor this change in the board prevented us from realizing our monthly meetings with the members and constantly updating our web page.

We opened Facebook and Instagram accounts to spread our activities as an organization and make us known on social networks.

Due to the lack of knowledge of the pandemic duration, we postponed the Second International Congress and Fifth Mexican Color Meeting: "Sex, color, and eroticism" in Mexico City organized together with the UNAM Society of ex-Alumni of the Faculty of Psychology (SEFPSI).



Book "El color en la Memoria Infantil" ("Color in children's memory") by Georgina Ortiz Hernández

### El Color en la Memoria Infantil

Este libro ha sido otro logro del esfuerzo de la Dra. Georgina Ortiz Hernández, uno de los miembros más prestigiosos de nuestra Asociación, quien ha dedicado más de 40 años al estudio del color. Por ello, invitamos a todos los...

On May 12, we celebrated AMEXINC's 15th anniversary and the day of the color with an extraordinary meeting where we ratified our desire to continue, as far as possible, with our scheduled activities so, we continued with the preparations for the congress planned for 2020 that will be held on 2021. In this event, we will present the National Color Award (in Mexico) and acknowledgments for works on the subject of color.

We held an online color seminar by the Psychology Faculty that will be repeated in 2021.

Regarding publications, in 2020 we published the book "El color en la Memoria Infantil" ("Color in children's memory") by Georgina Ortiz Hernández.

Let's hope that 2021 will be more favorable for us.



El Congreso se realizará en la Ciudad de México, próximamente, se confirmará la sede.



Poster for the fifth Mexican color meeting: "Sex, color, and eroticism" in Mexico City organized together with the UNAM Society of ex-Alumni of the Faculty of Psychology (SEFPSI)

## VISITANOS

### PÁGINA:

<http://amexinc.mx/sexo-color-erotismo/>  
<http://amexinc.mx/>

### CORREO:

[sexo.color.erotismo@gmail.com](mailto:sexo.color.erotismo@gmail.com)

### FACEBOOK:

[Facebook.com/AMEXINC](https://www.facebook.com/AMEXINC)

### TELÉFONO:

(55) 22-22-64

En un horario de  
10:00 a 14:00 hrs.  
de lunes a viernes



Les invita al II Congreso Internacional y V Encuentro Mexicano del Color de la Asociación Mexicana de Investigadores del Color A.C., del 9 al 11 de Septiembre de 2020





// NORWAY //

## Forum Farge Norway

Forum Farge, the Norwegian Colour Association, was founded on the 10th April 2013.

Board in 2020: President Mette Lorange. Members: Kine Angelo, Lisbeth Larsen, Bent Erik Myrvoll, Tine Hegli, Rigmor Baraas, Heidi Pettersvold og Peter Nussbaum. Secretary has been Sarah Leszinski.

More information about the board and Forum Farge can be found on [www.forumfarge.no](http://www.forumfarge.no) and <https://www.facebook.com/forumfarge/>

A new website was designed in 2019 by graphic designer Anette Lorange

Forum Farge had 114 members by 01.01.2020.

### MEMBERS RESEARCH ACTIVITIES

Some examples of members research activities in Forum farge.

NTNU The Norwegian Colour and Visual Computing Laboratory (<http://www.colourlab.no>) is a research group within Department of Computer Science at the Norwegian University of Science and Technology (NTNU) in Gjøvik. Focus: «Colour imaging and visual computing»

UIB, Faculty of art, music and design: Professor Mette Lorange, has continued her research on Colour for Nursing homes/dementia/Red Cross Nursing Home. Projects execution in 2021

NTNU, Faculty of Architecture and Design: Associate Professor Kine Angelo. Research: Colour and material gestalt strategies for the production of harmonious integrations in both restoration and the production of new buildings, with particular

focus on maintaining regional, cultural and district identities.

USN. Department of Optometry, Radiography and Lighting Design

Campus Kongsberg: Professor Rigmor Baraas is a member of the director committee of International Colour Vision Society, <https://www.icvs.info>, and the Optical Society's Technical Group on Colour.

Arrangements:

The annual conference Forum Farge 2020 was cancelled because of Covid-19.

(International Colour Day/ Webinar: "Colour and Beyond")

This has been postponed to 2021.

### COLOR TALKS / WEBINARS

10.12. 20: «Colour in Architecture»

Because of low activity/Covid, we have also linked our members to several webinars on colour around the world, that is to underline our role as communicator.

Apart from AIC activities and "RUcolour" I can mention the webinar: "Visual Perception of Materials" organized by OSA-Color Technical Group, September 2020.

### ACTIVITIES IN 2021

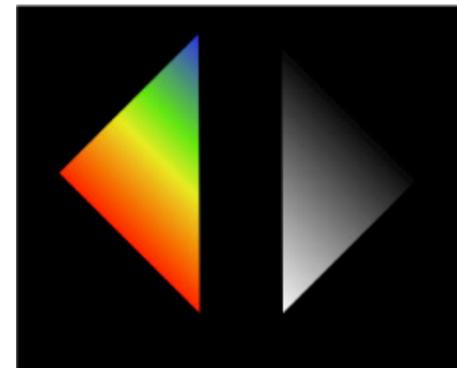
- International Colour Day 2021/ Webinar: "Colour and Beyond"
- A webinar arranged in collaboration with The department of Computer Science and The Norwegian Colour and Visual Computing Laboratory at NTNU Gjøvik. More info: <https://www.forumfarge.no/>

### COLOUR TALKS / PERFORMANCES

Dates to come.

From members: (Can be changed)

1. Kine Angelo og Alex Booker: Fra own research on Colour, Culture and Architecture. Zoom
2. Mette Lorange, Bent Erik Myrvoll and Heidi Pettersvold: Space, Colour and materiality. Zoom
3. Lisbeth Larsen and Rigmor Baraas: The colour eye/ trends etc. Zoom



Invild Constance Festervoll Melien, photographer, writer, urban agent. "Architectures palette, which mechanisms govern urban colour choices?"



Kine Angelo, interior architect and Associate Professor at Institute of Architecture and Technology, NTNU: "Colour in Architecture, Observations and Registrations"

// PORTUGAL //

## Associação Portuguesa da Cor APCOR - Portuguese Colour Association

This year we unfolded the word COR (colour in portuguese) in – Cooperation, Organization and Resilience – a beacon for 2020. We continued to pursue our goals establishing collaborations with other entities, researchers and people who share the interest in Colour as a research subject. In this report, you can find the actions that gave more colour to our path. See more at <https://pt-pt.facebook.com/apcor.org/>.

### PUBLICATIONS

We continued the Chromatic Instants series, where APCor with the ArchiNews magazine invites the readers to temporarily shift the attention away from the reading to immerse their eyes in colour, through

a series of records made by collaborators and associates:

Oliveira, A. P. 2020. "Chromatic Instant #3: Estamos a construir casa (2019), in Série Instantes Cromáticos/ Chromatic Instants (APCor ed.)", in RVdM Ricardo Vieira de Melo. Archinews #50, 1º trimestre 2020.

Antão, N. 2020. "Chromatic Instant #4: Acaso e Caos, 17 (2019), in Série Instantes Cromáticos/ Chromatic Instants (APCor ed.)", in Samuel Torres de Carvalho projects. Archinews #51, 2º trimestre 2020.

Conte, V. 2020. "Chromatic Instant #6: Relicários e outras promessas (2008), in Série Instantes Cromáticos/ Chromatic Instants (APCor ed.)", in OITOEMPONTO Artur Miranda | Jacques Bec. Archinews #52, 3º trimestre 2020.

We made available online the publication "frigoríficos políticos jogos de cartas palavras cruzadas POESIA COR AMOR", in P'ARTE: recolhas poéticas #1, 2019. (ed.) Verónica Conte. Lisboa: P'Arte/ CEC/ Faculdade de Letras da Universidade de Lisboa.

### SCIENCE COMMUNICATION

Close.Up.Green at the National Museum of Natural History and Science of Lisbon, March 21st (cancelled due to the pandemic)

Inspirations for the Sight (Seminar 10h00-13h00)

- Colour Biogeography - Jorge Paiva (Biologist CEF/ U-Coimbra)
- The art of colours of the Natural World: Andy Goldsworthy e Wolfgang Laib - Carlos Carrilho (Cultural Mediator F.C.Gulbenkian)
- Colour in the Representation of Nature - Margarida Prieto (Professor, CIEBA – FBAUL)
- Colour changes and transformations of the communication - Jorge Carvalho (Professor, FBAUL/ ISDOM)

Records side by side (workshop 14h30-17h30). Invitation to a time to develop attention and creative experiences to see, collect, transform, return, record colour and nature. Meeting at the Museum to exhibit and share experiences.

### CONFERENCE

Once more we collaborated in the XVI Conferenza del Colore in Università di Bergamo, Italy, 3-4 Sep. 2020, a joint Meeting with the Gruppo del Colore – Associazione Italiana Colore and other associations.



Edição e coordenação: Ana Pais Oliveira. Série Instantes Cromáticos/ Chromatic Instants Series APCor®. associação portuguesa da cor

Chromatic Instant\_#3\_Ana Pais Oliveira

### APCOR MEMBERS

The Portuguese Colour Association continued to be represented by its members at the main forums of colour discussion throughout the world: Ana Paula Pinheiro, Fernando Moreira da Silva, João Pernão, Luisa Martinez, Margarida Gamito, Maria João Durão, Miguel Sanches, Rui Barreiros Duarte, Vanda Matos and Verónica Conte are APCor members who disseminated their research, with participations in the following international congresses and scientific publications:

- AIC 2020 Avignon. AIC Interim Meeting Natural Colours-Digital Colours, Avignon, France 20, 26-28 Nov 2020; RUCOLOR2020.
- The International Conference of the Color Society of Russia, Smolensk, Russia 1-5 Dec 2020; 1st
- Digital Marketing and eCommerce Conference, Barcelona, Spain, 25-26 Jun 2020;
- AHFE 2020 Virtual Conference on Ergonomics in Design, USA, 16-20 Jul 2020,
- ENCORE2020 4º Encontro de conservação e reabilitação de edifícios (LNEC), Lisboa, Portugal, 3-6 Nov 2020.
- Duarte, R., Pinheiro, A.P. (2020). Arquitectura em Contextos Extremos. Lisboa: Rui Barreiros Duarte, Novembro 2020, pp.1-190.
- Duarte, R. (2020). Jogos de Espelhos. Lisboa: Rui Barreiros Duarte.
- Durão, M. J. e Castela, R. (ed.) (2020). Desenhos de Maria João Durão – Revisitando a Terra Verde, Lisboa: 3D Flip Book, Available in <<https://www.revisita.pt/livro-online/>>. Where the following associates participated,



Edição e coordenação: Natacha Antão Moutinho. Série Instantes Cromáticos/ Chromatic Instants Series APCor®. associação portuguesa da cor

Chromatic Instante\_#4\_Natacha Antão Moutinho

as authors: H.Souares, J.Perry, J.Brehm, M.Kong, S.Frances Dias, S.Maffei, V.Conte and Z.Simões.

- Gaudiot, D.; Pernão, J. (2020) "The Contribution of the Built Environment to the Success of Learning: The Role of Colour in the Ergonomics of Educational Spaces". In Advances in Human Factors in Architecture, Sustainable Urban Planning and Infrastructure. Springer International Publishing, 168-174.
- Martinez, L.M., Gameiro, D., Martinez, L.F., Agante, L., & Abreu, A.M. (2020). "The influence of colour in anthropomorphic packaging: Purchase intention and product attractiveness". Revista Portuguesa de Marketing | Portuguese Journal of Marketing, 19(37), 71-86.
- Pinheiro, A.P., Duarte, R. (2020), "Reabilitação Arquitectónica e Património: Catedral de Portalegre". Revista al.madan, II Série (23), Novembro 2020, dossiê Conservar e Reabilitar o Património Edificado, 96-105.
- Sanches, M. (2020) "Printing laboratories practices: the i.E. Magazine case study", in Raposo, D. et al. (eds) Advances in Design, Music and Arts – 7th Meeting of Research in Music, Arts and Design, EIMAD 2020, 14-15 May, 2020. Springer International Publishing, 139-147.
- Maria João Durão became Chair of Exhibitions Technical Subcommittee of the Space Architecture Technical Committee (SATC) - American Institute of Aeronautics and Astronautics (AIAA), [spacearchitect.org](http://spacearchitect.org).



Close.up.Green (poster)

// SLOVENIA //

## Slovenskemu združenju za barve SSC - Slovenian Society for Colours

Development of a machine learning model for extracting image prominent colours from the image Weingerl et al. have developed a machine learning model for extracting image prominent colours from the image. The model is learned on human-extracted themes of prominent colours and uses numerous features based on the properties of the human visual system. The model has high practical importance since it can be used for extracting image colours in different scenarios, for example, for automatic colour design, image categorization, as a descriptor in content-based image retrieval, and image content analysis frameworks. Details about the model are described in the article Development of a machine learning model for extracting image prominent colours, published in the journal Color Research & Application.

Raša Urbas, we wanted to investigate how different codecs and bitrates undermine color notation. We compared the most commonly used codecs and came up with interesting findings, which we also published in a paper at the international GRID conference <https://www.grid.uns.ac.rs/symposium/download/2020/73.pdf>.

### GWG ICONOGRAPHY PROJECT

Ghent Workgroup (<https://www.gwg.org/>) worked closely with students from the Faculty of Natural Sciences and Engineering (University of Ljubljana) on a GWG Iconography project during the 2019/2020 academic year. The goal of the project was to create a set of new, updated icons consistent with the GWG visual identity to provide a better user experience, a fresh approach to content, design and artistic coherence, and a new and updated look for the GWG website.

The students worked on the project under the mentorship of Assist. Prof. Dr. Nace Pušnik, Dr. Gregor Franken and Assoc. Prof. Dr. Raša Urbas. Their work had to adhere to certain guidelines and established design principles consistent with the GWG visual identity, including adherence to colour specifications.

GWG's colour specifications included 3 primary and 5 secondary colours that had to be meaningfully integrated with the existing website content, documents and individual videos. The challenge was to consider the specifics of the graphic design of all GWG materials (digital documents, printed materials, and website) to ensure a consistent overall presentation. The solutions presented were interesting and it was very difficult to choose the most appropriate one. All thirteen proposals were

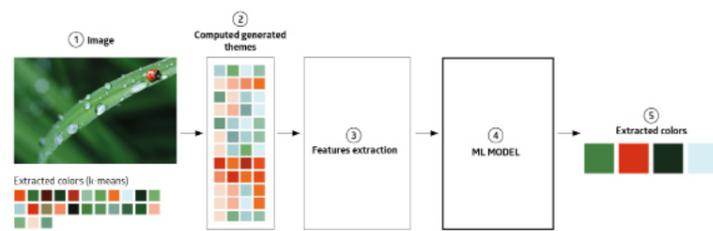


Figure 1: Development of a machine learning model for extracting image prominent colours from the image (Weingerl et al.)

Influence of codec use on colour changes of videos Video content is a common form of recorded information, and because it is multimedia, it takes up a lot of storage space. For the purpose of efficient compression, different codecs are used, each of which encodes the information in its own way and has a different structure of recording. One of the most effective methods of compression is also to encode the color properties of the captured image elements. Since coding is complex, especially with respect to colors, in Patricija Selič's thesis, which she completed under the mentorship of Assoc. Prof. Dr.



Enlarged details of videos of the same part of the frame, encoded with different codecs at different bitrate

shortlisted and in the end Maj Eržen Ambrož's design proposal was selected as the best. The final results of the project are published on the Ghent WorkGroup website (<https://www.gwg.org/iconography-project/>).

### NEW BOOK

Monografija Društva likovnih umetnikov Maribor ob stoletnici organizirane likovne dejavnosti v okoljih severovzhodne Slovenije (Ed. Vojko Pogačar and Primož Premzl)

The book was published by the Association of Fine Artists Maribor (DLUM) on the occasion of the centenary of organized art activities in Maribor, Slovenia, and its wider surroundings. On December 8, 1920, the painter Viktor Cotič and General Rudolf Maister opened the first art exhibition in the Kazina hall (former officer's hall) of the SNG Maribor. Several themes of the art history of artistic creativity are treated according to various disciplines related

to the fine arts, to artistic reflections in the media. The book also contains the reflections on fine art by photographers and writers and it concludes with a scientific appendix to art theory, philosophy and aesthetics.

### AIC2020 CONFERENCE AVIGNON

The AIC2020 on-line conference was a wonderful experience, although we were not able to visit Avignon. Klementina Možina and Irena Ilijaž presented a study entitled What connects graphic design of Japan and Denmark. The aesthetic and design principles (colour, typography, motifs, shapes) of both nations were described and common aesthetic values that link Japanese and Danish design were established. Colours (or even absence of colours) are one of the most important elements of both designs. Barbara Blaznik and Sabina Bračko presented a student project addressing the problem of long-term colour memory.

## Maj Eržen Ambrož best design



GWG Iconography project: the selected design by Maj Eržen Ambrož



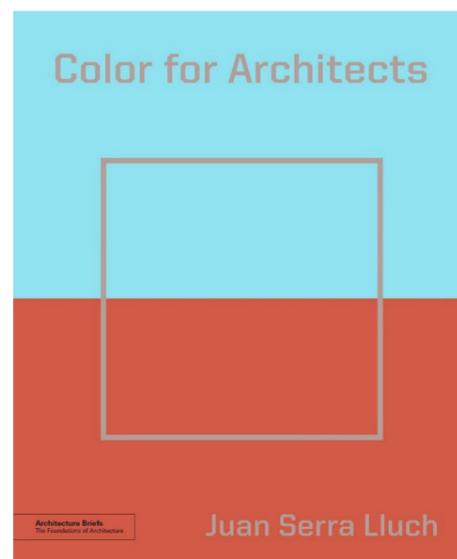
// SPAIN //

## Comité del Color Sociedad Española de Óptica

CEC - Color Committee Spanish Optical Society

Despite the COVID19 pandemics, the Comité del Color maintained a few of its customary activities participating on-line in different events around color (conferences, workshops, courses) such as the AIC2020 conference and the London Imaging Meeting 2020 (LIM).

It is to be noted that members of the committee have recently published books related with color. On the one hand, Juan Serra Lluch, associate professor at the Universidad Politécnica de Valencia (UPV) published the book entitled “Color for architects” (Ed. Princeton Architectural Press, ISBN: 978-1616897949). In the book Dr. Serra talks about the topic of color, which has been an integral part of architecture for years but also one of its least understood elements. In fact, color theory is rarely taught in architecture schools, leaving architects to puzzle out the hows and whys of which colors to select and how they interact, complement, or



Color for Architects book cover

clash. Color for Architects is profusely illustrated and provides a clear, concise background on color for designers of every kind. This latest volume in Architecture Briefs series combines the theoretical and practical, providing the basics on which to build a fuller mastery of this essential component of design. A wealth of built examples, exercises, and activities allows readers to apply their learning of color to real-world situations.

On the other hand, Ana Torres, also associate professor at the Universidad Politécnica de Valencia (UPV), presented the publication entitled “MODIFICA. Modificaciones del confort visual en centros residenciales para la mejora de la calidad de vida de las personas mayores. Modifications of the visual comfort in residential centers to improve the quality of life for the elderly” (Ed. Universitat Politècnica de València, ISBN: 978-84-9048-866-9). This publication, funded by the Programa Estatal de Investigación Desarrollo e Innovación Orientada a los Retos de la Sociedad (BIA2016-79308-R), is intended to be a guidance to color solutions. Specifically, it tries to address the doubts that arise about how to understand color from a scientific, social, psychological and technical point of view, allowing guidelines to be established based on the evidence obtained and providing graphical examples in a simple way as an aid for their application. The project acronym “MODIFICA” arises in response to the progressive phenomenon of population aging and the consequent demand and institutionalization of the elderly in residential centers, where creating an architecture from a more human perspective that guarantees adequate services and environmental factors in accordance with the welfare state becomes a need. The book focuses on two major challenges: (i) to carry out

a color analysis in the Residences of the Third Age of the Valencian Community, specifically public, checking and studying the current state of the lighting factors and the color applied to them; and (ii) a research that includes a set of mechanisms suitable for the visualization of the chromatic parameters, to examine the expected results of the design and anticipate their execution. The treatment of color is proposed as a fundamental element to help creating states of visual comfort and well-being and, consequently, improving the environment in the spaces where the various activities of this group take place, as well as improving the quality of life and emotional stability.

Master's courses about color were organized by the University of Granada “Master Erasmus+ Colour in Science and Industry (COSI)” and by the University of Alicante “Master in Color Technology for the

Automotive Sector (ColTAS)”. Additionally, other workshops and seminars were organized along 2020 about different aspects of color: color of light, color vision, color in biomedicine, and colorimetry and Visual appearance..., with the support of several members of our committee (Consejo Superior de Investigaciones Científicas, University of Alicante, Universitat Politècnica de Catalunya, University of Granada). From those, it is to be highlighted the CIE Tutorial on Colorimetry and Visual Appearance: CIE Tutorials on Colorimetry and Visual Appearance | CIE

Finally, it is also remarkable that the Comité del Color has started to prepare the upcoming events for the next years, especially the XIII Congreso Nacional del Color, one of its main activities, which will be held in Terrassa (Barcelona, Spain) on June 29, 30 and July 1, 2022.



MODIFICA - Modifications of the visual comfort in residential centers to improve the quality of life for the elderly”

// SWEDEN //

## Svenskt Färgcentrum

SSF - Swedish Colour Centre Foundation

### PRISAD FÄRG/AWARDED COLOUR 2020

The first prize winner of awarded Colour 2020 was Asta Westermark Florestedt with "Let's talk Colour!" Colour enriches form. How will form be coloured in the future?



The winner of Prasad Färg 2020 Asta Westermark Florestedt

During autumn 2020 we have announced Awarded Colour 2021 with the theme "Colour & Status". Colour and status have always been used as a marker for social or professional status, rank and culture. Today, the concept of status is more complex, fast-moving and can differ markedly in different subcultures. Status can also be a state, position, or location. The winner will be announced at the ICD 2021 festivities, March 22.

### THE YEARLY TEACHER'S SEMINAR IN SEPTEMBER BECAME DIGITAL

The yearly teachers' seminars "Young Colour Force" brings together our network of teachers in Swedish design- and architect's schools with the goal to raise the interest of colour education, both for students and teachers.

This year in September we arranged a digital teacher's seminar and started in Swedish with a

Debate in the Swedish network: How to create a good colour training at a distance? This worked out to be an interesting subject to discuss in these times.

In the afternoon we also invited international participants because we had invited Ingrid Calvo Ivanovic, Politecnico di Milano. Ingrid's much appreciated talk was about "Creating a Framework for Colour Education: Colour Design Training Itinerary". This is from Ingrid's research project which aim is to contribute to greater inclusion and appreciation of the teaching and learning of colour in the project disciplines. After the presentation Ingrid opened for discussions with some of her questions which are the background to her ongoing colour education project. These seminar brought together both Swedish and international participants (28 in total).

### MEMBER'S MEETINGS

In January we had a special guided tour at the National Museum, the exhibition by Hella Jongerius "Breathing Colour". Hella wants us to discover and question more. She says we need colour that has life and intensity around us. Colour that breathes.

In February we could visit the awarded colour prize ceremony at the Stockholm Furniture Light Fair 2020.

In March the celebration of the International Colour Day was cancelled, and we had no more meetings in the springtime. So, this year has not been a normal year but also very learning and in the future there will probably be both digital and physical colour meetings.

In October we had two meetings. First, we had a walking tour round Norra Djurgårdsstaden,

Stockholm Royal Seaport, which is the largest urban development area in Sweden, with plans for at least 12,000 new homes and 35,000 workplaces.

The second meeting in October was a special guided tour at the Marabouparken, an art gallery, with Sweden's most influential and colourful textile designer Wanja Djanaieff showing her retrospective exhibition. A very impressive textile creation with lots of colours!

Pic 3.

In November our annual meeting took place as a digital meeting. After all formalities we invited to a virtual colour talk "Colour in Architecture" with Kine Angelo, professor at NTNU in Trondheim. Kine presented her and Alex Booker's travels both in Norway and abroad where they studied exterior colour schemes and analyzed them using the NCS system. They have an online site "Colour in Architecture" with the goal to be able to show several projects from architecture, design and technology with the vision that this site will become a meeting place for future professionals. This meeting happily gathered around 46 participants both international and Swedish.

Berit Bergström, Secretary,  
bergstrom.berit@gmail.com  
info@fargcentrum.se

Swedish Colour Centre Foundation,  
www.fargcentrum.se



National Museum of Stockholm Member's meeting January Hella Jongerius "Breathing Colour"



Guided tour at the Marabouparken, with Sweden's most influential and colourful textile designer Wanja Djanaieff



Marabouparken, member's meeting in October Wanja Djanaieff.

STIFTELSEN SVENSKT FÄRG CENTRUM

Welcome to a virtual colour talk.

"COLOUR IN ARCHITECTURE"  
Kine Angelo, Associate Professor  
Department of Architecture and  
Technology vid NTNU Trondheim

Date: Wednesday November 25  
5:30 - 6:30 PM  
"Colour in Architecture"  
(talk in English)

Where: Zoom meeting (link when rsvp)  
RSVP: info@fargcentrum.se  
no later than November 23

Yearly meeting invitation

// SWITZERLAND //

## pro colore

Schweizerische Vereinigung für die Farbe

Due to the COVID-19 pandemic several events planned during 2020 by the pro colore – Swiss Association for Color were cancelled and the General Assembly was finally carried out virtually in August. Held with a limited number of participants, only two in-person events could take place in 2020. Other milestones included redesigning both the Association's logo (Daniela Buff) as well as the website (Tanja Jacobsohn) and updating the website to meet current search engine standards. This optimization will help increase the awareness of the Association at least for the next few years.



New design of the pro colore website 2020. Photo: Tanja Jacobsohn.

### EVENTS 2020

#### Painting with the Printing Press:

Studio Visit and Workshop

#art printing #printing craft #art publishing

After a short period of “jitters” due to the second wave pandemic, the first meeting of the year was held on 23 October under strict protective measures and with a limited number of participants. A mere nine persons gathered at Eglistrasse 8 in Zurich at Wolfensberger Lithographic Printers to explore

lithography, a technique that is over two hundred years old. Now operated by the fourth generation, this family-run planographic and offset printing workshop and publisher has been exclusively an art printing studio since the early 1960s. Owner Thomi Wolfensberger, a multi-award-winning art printer who practices his passion daily, provided insight into his collaboration with artists, work that includes technical support and printing their artworks. A glance at the list of references on his website reveals some renowned names. After a brief introduction to the interesting history of lithography, the printing press, and works currently being supervised, the owner led a workshop introducing participants to this exciting printing method. Being artists for an afternoon, the task consisted in creating an image on flat limestone with black greasy paint. An important issue with this kind of creative work is to remember that everything painted on the stone appears laterally reversed on the paper, which is good training for the brain and imagination. While the owner was etching the stone with gum arabic and nitric acid, he told the participants stories about the artists and their ideas that have emerged at the studio or about solutions he had to find together with the artists.



Workshop at Wolfensberger Lithographic Printers studio. Creating an image on a flat limestone with black greasy paint. Photo: Tanja Jacobsohn.

Thereafter the participants' creations were printed on marvellous handmade paper. At the end the painted images were polished off the stone making it ready for new artworks. This fascinating printing process is the complete antithesis of digitalization; the work can not be transferred to a USB stick nor can it be digitally stored. The participants also enjoyed an aperitif in the studio in a literally small circle so that they could share ideas in a quiet and colourful environment.

www.steindruckerei-wolfensberger.ch

#### Colour Design for Architecture:

Visit to the Tellhof Building Ensemble

#colour concepts #colour in architecture #spatial design #art in architecture

Still assuming appropriate protective measures such as wearing a mask and respecting proximity, it was nonetheless a pleasure to be able to get together on 28 November in Zurich. The meeting featuring exploring the work of two colour designers Nora Fata and Catherine Burkhard who founded their own firm burkhard & fata farbgestaltung four years ago. Trained as colour designers in architecture at the Institute Haus der Farbe in Zurich the duo has realized numerous colour projects which they presented in their studio to the participants. One of them is the block perimeter building ensemble Tellhof in Zurich. With entrances facing the street and courtyards with small businesses, these former tenements were built in 1875 and are typical of Zurich's District 4 (Aussersihl), a former factory workers quarter near the main train station. In a sense it is an unfolding project because the colour design of more and more buildings, parts, or interiors are added over time. Each element is designed individually, yet has to conform the overall colour concept of burkhard & fata. Their aim is to naturally combine colours and materials but to do so in a way independent from the architecture. The guided tour started with discussing the green façade of the Gül Restoran, a restaurant located in the courtyard where the cloudy imperfectness of the lime cement plaster is appealing indeed. The façade of Tellstrasse 20 is particularly interesting because the colour design also includes the soffits of the roof and balconies. The tour was continued in the staircase with its own atmosphere and processed to the completely restored attic with a challenging

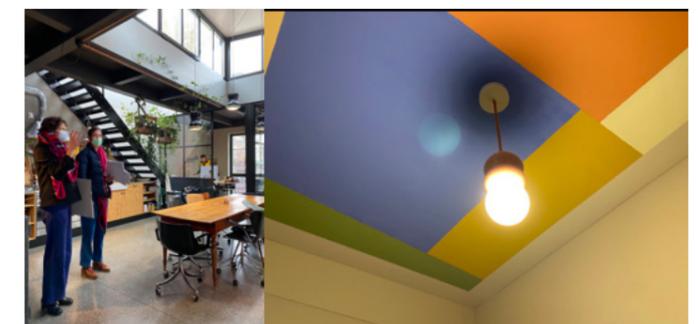
colourful design. Featuring a high-quality colour design the façade of Zwinglistrasse 18 clearly stands out from the neighbouring buildings. Walking up the staircase with ceiling paintings, the participants had the opportunity to visit a furnished flat on the upper level. The tour ended with a visit to the unique office space with its loft-like atmosphere and wonderful roof garden. Back in the studio of the colour designers responded to the participants' questions. What was especially a point of avid discussion was the fact that since the buildings have been restored by different architects, each time the collaboration of the colour designers with the architects was very different. www.burkhardfata.ch



Workshop at Wolfensberger Lithographic Printers studio. Creating an image on a flat limestone with black greasy paint. Photo: Tanja Jacobsohn.



Green façade of the Gül Restoran. Photo: Ralf Studer. Courtyard: Restored building façades. Photo: Ralf Studer.



Office space on upper level. Photo: Ralf Studer.

Ceiling painting of staircase. Photo: Ralf Studer.



// TAIWAN //

# 中華色彩學會

CAT - Color Association of Taiwan

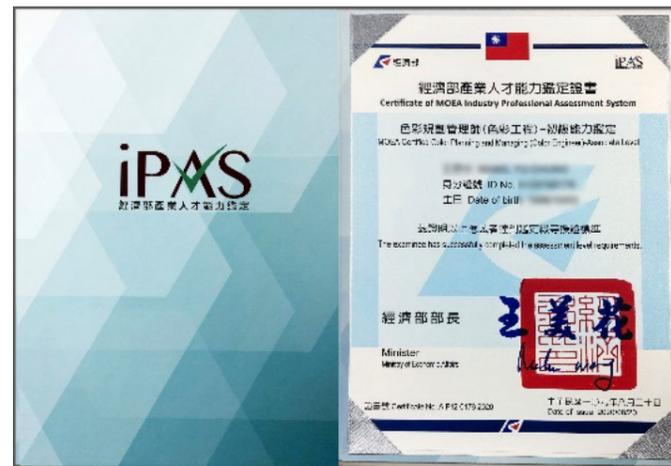
## REVIEW

The Color Association of Taiwan (CAT) is marking its 21st anniversary. Over the years, the association has witnessed the changing needs of the times and has established a bridge of friendship between global experts and scholars in the field of chromatics through academic exchanges and discussions. As a member of the International Colour Association (also known as Association Internationale de la Couleur, AIC), CAT jointly founded the Asia Color Association (ACA) and held annual meetings in Taiwan.

The year 2020 was full of unexpected events and changes. In cooperation with the TAIWAN Association of Color Applications (TACA), CAT assists the Industrial Development Bureau and the Industrial Technology Research Institute in



Promoting events of iPAS color certification



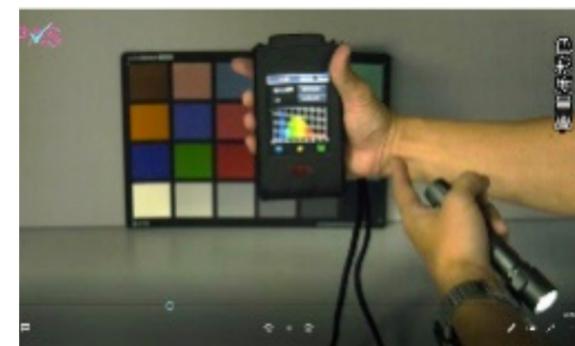
The iPAS Color Planning & Managing Certificate

promoting the iPAS color management certification for industry professionals, so as to further improve the assessment of professional skills for practical and industrial color applications in Taiwan. This year's conference held on December 19, and the main theme is "Color and Design." The conference seeks to facilitate academic discussions on color-related topics and promote exchanges of professional experience. Keynote speeches focus on interdisciplinary research on color applications and will be given by leading scholars in the field. The event provides a great opportunity to expand academic horizons and improve professional skills

through knowledge exchange between domestic and foreign academics and technology talents in areas related to color research and application. In addition to 15 oral presentations, we have invited two keynote speakers. Dr. R.P.C. Janaka Rajapakse, a Sri Lankan researcher from the Graduate Institute of Animation and Film Art, Tainan National University of the Arts, Taiwan, give a speech about digital color and new media. Professor Li-Chen Ou from the Graduate Institute of Color and Illumination Technology, National Taiwan University of Science and Technology, will talk about color emotion for interior lighting. Through expanded participation, innovative interdisciplinary collaboration, and mutual encouragement, it is hoped that this conference can stimulate the exploration of more valuable applications of color for enhancing quality of life. We hope that color lovers can take a step forward and embrace the advances in research and industry both at home and abroad.



Poster of the CAT 2020 Color and Design Conference



Making color education videos





// THAILAND //

## Color Society of Thailand CST

Dr. Jakkarin Singnoo, a member of Department of Imaging and Printing Technology, joined the Color and Imaging Conference (CIC28 ONLINE) and proposed his article on “A Study of Unsharp Masking on HDR Visualization on Low Dynamic Range Devices”. He also joined International Conference

on Advanced Imaging 2020 (ICAI2020) hosted by Chiba University with the topic of “Unsharp Masking Tone Mapping Operator.”

In September 2020, the research project “Development of visual assistive tools for the elderly and the low vision” led by Assoc. Prof. Pichayada Katemake was funded by National Research Council of Thailand. The team members include Department of Imaging and Printing Technology in Faculty of Science, Department of

Housing, Faculty of Architecture, Department of Electrical Engineering and the Eye Hospital (Metta Pracharak). The project focuses on developing lighting lamps with specific wavelengths used in houses, color palettes in interior design and in some materials for low vision people.

In October 2020, the research project “Development of restoration and conservation of cultural heritages” led by Assoc. Prof. Pichayada Katemake was funded by Thailand Science Research and Innovation (TSRI). The team members include Department of Imaging and Printing Technology, Department of Materials and Department of Chemistry of Faculty of Science, Chulalongkorn University. The project focuses on scientific process of conservation and deterioration of pigments found in ancient “Khon” mask and in mural painting at the Building 1 of Metropolitan Electricity Authority, Wat Liab District, Bangkok, it was built in King Rama V period, around in 1914.

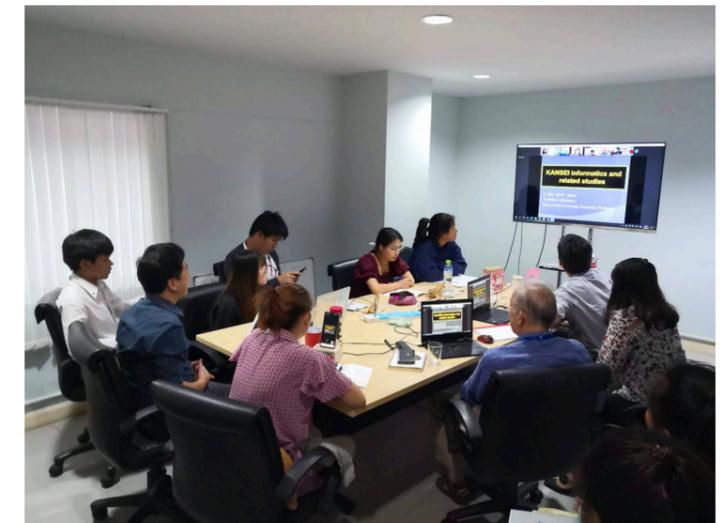
In 2020 the Faculty of Science, Chulalongkorn University joined, as Associated Partner, the Consortium Agreement Erasmus Mundus joint Master degree computational color and spectral imaging (COSI).

We are having difficult time to carry planned activities because of the COVID-19 situation. During the preparatory meeting held at the color research center in 2019, the committee planned to hold a CST seminar on color measurement in around May, 2020. However, one of the key committee members, Prof. Mitsuo Ikeda, a former AIC president and the Judd Award winner, was not able to return to Thailand until Oct. 2020 since after he travelled to Japan in Feb., 2020 due to the COVID-19 situation.

On the other hand, there were good things happened because of COVID-19, such as the use of online facilities for international meetings. In

Dec. 2020, the CRC had an international exchange lecture on topics “Kansei Informatics and Color Science” (see pictures) between Prof Ayama and Ishikawa labs of Utsunomiya University and the CRC of RMUTT. A similar online meeting, Online International Student Exchange between OCU and RMUTT, is planned to be held in the near future between Prof. Sakai and Prof. Iyota labs of Osaka City University, Japan and Faculty of Mass Communication Technology of RMUTT where the CRC belongs.

As to the Asia Color Association ACA, it was supposed to be held in 2020 at Royal Ambarrukmo Yogyakarta, Indonesia by being organized by Prof. Adi Djoko Guritno, Head of Department of Agroindustrial Technology, Faculty of Agricultural Technology, Universitas Gadjah Mada, Yogyakarta, Indonesia, but again this was obliged to postpone because of the COVID-19 situation. The preparation is underway and toward the end of 2021, the conference will be held on-line. Young scientists and students are looking forward to the conference.



Students and staffs of CRC attending at the online lecture with Utsunomiya University.



People attending at the International Exchange Lecture on Kansei Informatics and Color Science. Mixture of Japanese and Thai.

A part mural painting at the roof of Building 1



// UNITED STATES //

## Inter-Society Color Council ISCC

### MEETINGS

ISCC hosted two meetings in 2020. The first was Color Impact 2020: ISCC Virtual Symposium on Color Education and the second was the 2020 Virtual Annual Meeting.

The Color Impact 2020 Virtual Symposium on Color Education was held on Saturday, June 6th from 11AM to 5PM EST. ISCC's first virtual

conference was a smashing success! There were 269 participants from 29 countries attending this highly informative, well organized and lively 6-hour weekend conference! The day was divided into two parts. Philip Ball opened Part One with a keynote presentation "Why Color?"

highlighting his many experiences connecting with the color world since publication of his seminal book, *Bright Earth: Art and the Invention of Color*. Next participants enjoyed inspiring and innovative presentations from four invited color educators:

1. Jennifer Cohlman-Bracchi, Acting Head Librarian and Color Educator
2. Dr. Andreas Schwarz, co-author with Rolf Kuehni of the book on ordering color
3. Dr. Robin Kingsburgh, Astronomer, painter and teacher of the art and science of colour
4. Luanne Stovall, Color Educator at the University of Texas, Austin

Following all short presentations, a 30-minute concurrent Question and Answer Zoom Room was held for each speaker. Lively discussions were enjoyed by all as important questions were answered. Part Two featured four more interactive types of presentations. First Paul Green-Armytage discussed some hands-on color activities that were done with color targets during a pre-symposium "Color Clues" naming game. New sorting categories

("family" and "character") for colors were defined based on some studies conducted by Green-Armytage. Participants were then engaged in an interactive exercise where they were asked to match colors of the same "family" and "character". Next there was a Point-Counterpoint Debate moderated by Robert Hirschler with Zena O'Connor defending traditional color theory and Maggie Maggio defending a wider vision of color theory for the 21st century. Two key points emerged from this debate. First, it is important to recognize that many disciplines currently communicate using the vocabulary of traditional color theory. Second, it is time to move beyond this over-simplified version of color theory and take up the challenge to expand and update foundational color education across disciplines. The third segment of Part Two featured a Panel Discussion, "2020 Forward Vision: Next Steps in Color Education". Luanne Stovall was the moderator. Leslie Mutchler, educator from Pratt Institute, Alicia Keshishian, chair of Education Division of Color Marketing Group, and Nader Sadoughi, a senior form the University of Texas, Austin each gave short presentations. Enthusiastic discussions followed! Finally, Part Two ended with Maggie Maggio leading a discussion of the Colour Literacy Project. Maggie shared an announcement of the launch of the website at [www.colourliteracy.org](http://www.colourliteracy.org).

The second meeting was the ISCC 2020 Virtual Annual Meeting held on Friday, October 6th. There were about 30 – 40 participants attending throughout the two-hour duration. Reports were given by all Executive Officers of the Board of Directors, special topics regarding activities within the Council were discussed and Awards were given. More details can be found at [www.iscc.org](http://www.iscc.org).

### COLOUR LITERACY PROJECT

A joint project between ISCC and AIC. Please see more details on page 84 of this Annual Review.

### PUBLICATIONS

The ISCC News was published quarterly in 2020. Dr. Michael Brill's Hue Angle columns featured such fascinating topics as "The Virtual Image: Keeping it Real", "Color/BW Tropes in Cinema", "Why Colors Show Up as Icons in Mathematics" and "The Revolving Door between Color Science and the English Department". Carl Jennings from the University of Hawai'i continued his column entitled "Refractions" to pique our curiosity on such color topics as "A Strange New World: the Art of Olafur Eliason", "The Color of Things" and "Eating Color: Color Perception in Plants". We also enjoyed an entry from Ellen Carter who shared "In This Issue" from Color Research and Application. Another quarterly entry is "A Blast from the Past" written by Paula J. Alessi, which reminisces on valuable historic content from ISCC newsletters that were published 50 years ago. Each issue featured other delightful articles on ISCC activities that occurred throughout the year. ISCC is pleased to offer the entire newsletter archive online at <https://iscc.org/> Newsletter from the years 1933 – 2019.

### WEBINARS

ISCC's highly successful online seminar series continued in 2020. It began in January with a webinar given by Ken Butts, from Datacolor. His presentation, "Ultra-Portable Color Measurement-A Spectro in Your Pocket", demonstrated how useful these devices are and highlighted their potential for new applications. In February Ruthanne M. Hanlon, a color and design manager for PPG Architectural Coatings, presented "Color and Culture: COLOR AND DESIGN TRENDS". She gave a fascinating talk describing that color trends are an outcome; they are a product of timing, events and moods. As is tradition, our March webinar commemorated International Colour Day with Ellen Divers, a color designer and researcher discussing "The 'Blind Spot' in Architectural Color". As Ellen described her work with interior designers and design students learning about color, she also shared her research framework for investigating the human response to color. The April webinar featured Shelli Sedlak, a senior production manager for commercial ceilings for GE Current, speaking on "Light and Color with LED". Shelli's message was that comprehending color metrics used with

conventional and LED sources will allow for a more thoughtful technical and artistic design approach. In May, Sally Augustin, founder of Design with Science, presented "The Science of Designing with Color: Making the Right Choices". Sally described how neuroscience is clear – surface colors influence how we think and behave, thus allowing us to make the right design choices.

These webinars are free and open to anyone around the world. Each one usually lasts about 60 minutes. Some of these presentations are available online to ISCC members. If you are interested in learning more about our webinars, please go to <https://iscc.org/SeminarSeries>. If you join our LinkedIn online community, you will get notices about the webinars.

### FLOUESCENT FRIDAYS

In November of 2020, ISCC launched a new webinar series for all university students interested in color. It is called "Flouescent Fridays" in the hopes that students can absorb energy from industry color experts so that they can then re-emit that energy into their careers. The first one was called "How Do You Organize Your Crayons?". This international event featured a panel discussion that introduced the use of CIELAB as a color management tool. Lively discussions occurred as students interacted with each other and industry professionals exploring cutting edge information about the nature of color and its applications. These webinars are also free for all participants and they will continue into 2021!

### AWARDS

The Nickerson Service Award is presented for outstanding, long-term contributions towards the advancement of the Council and its aims and purposes. The 2020 Nickerson Service Award was presented to Maggie Maggio for her detailed and visionary contributions to ISCC that reach way beyond her 5-year membership timeline! Maggie has been a major contributor to the fabric of ISCC, especially in the fields of color education and color literacy.

The ISCC Macbeth Award is given for one or more recent outstanding contributions in the field of color. The 2020 Macbeth Award was presented to Roland L. Connelly, Sr. for his focused work in the practical application of color science to color measurement. This included milestones such as UV measurement of textiles and standard CIE illuminants for LEDs. ISCC was proud to recognize the accomplishments of two of its members with these coveted awards at the 2020 Virtual Annual Meeting!



Maggie Maggio, the Recipient of the ISCC 2020 Nickerson Service Award



Roland L. Connelly, Sr. the Recipient of the ISCC 2020 Macbeth Award



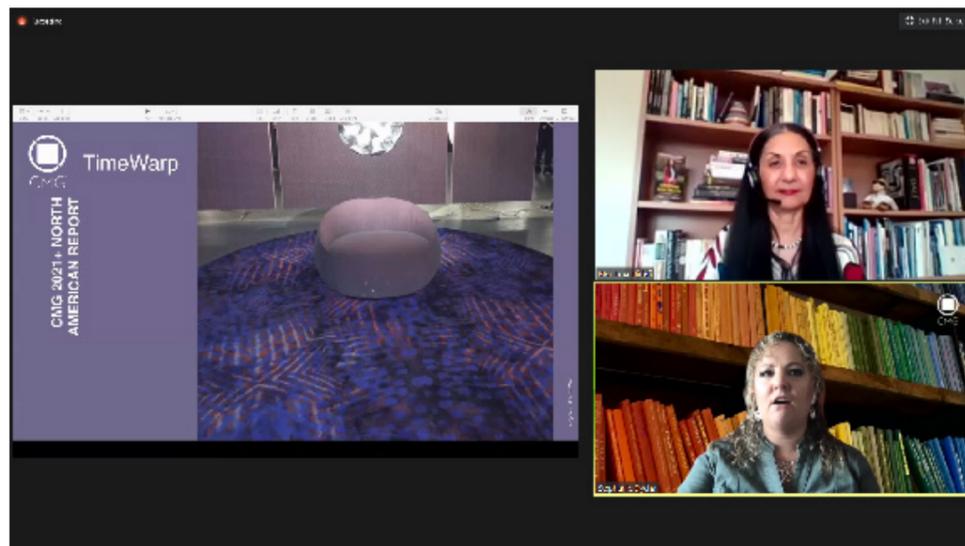
// UNITED STATES //

## Color Marketing Group CMG

Color Marketing Group® (CMG) holds a multitude of in-person events throughout each year to promote the common interest of our members for color marketing across all industries and markets. Our events meet our mission to create accurate and relevant color and trend forecast information by connecting global color professionals in their shared passion. CMG has been holding in-person conferences for almost six decades.

Early in 2020 it became apparent that the impact of the COVID-19 pandemic would not permit us to hold in-person events. As the pandemic spread across the globe, CMG events and conferences were canceled, and our committees worked diligently to find alternative ways for our members and network to remain connected in these unusual and unprecedented times.

Our Color Forecasting Committee transitioned our ChromaZone® Workshops to virtual events, allowing us to continue to provide color forecast information to our members. We evolved our forecasting process to overcome the challenge of forecasting colors in the virtual world by offering ideas and online resources to all attendees, as well as additional training for our workshop facilitators and leaders. Throughout 2020 CMG held 14 virtual ChromaZone® Color Forecasting workshops. In total 195 participants shared their trend stories and 1,011 color directions for 2022. All this information was curated by CMG's Steering Committee who shortlisted 282 colors, eventually agreeing upon our 64 color directions for 2022. As the "new normal" becomes the "standard" we have fully embraced working in the virtual world and 2021 will see us continue to offer global ChromaZone® Workshops with 16 virtual events planned between March and June.



Color Forecasting Committee transitioned our ChromaZone® Workshop

Also, in 2020 we launched other new and innovative initiatives for our members with the goal to create unique avenues for our members to foster engagement in the color community. ColorChat™ offers digital discussions on all topics of color design, CMF design, future trends, and more. ColorSpeak™ series offers single-topic webinars on a multitude of color design subjects, delivered by CMG industry leaders. These projects have proven to be of enormous value to our members and network and we will continue to offer these initiatives in 2021.

Lastly, as we reached the end of 2020 with no end to the pandemic in sight, we transitioned our annual International Summit to a virtual event. Our annual Summit is the launchpad for our directional World Color Forecast™, the combined results of our forecasting events in North America, Europe, Asia Pacific, and Latin America. Hundreds of color design professionals from around the world tuned in to our virtual platform as we shared our color forecast for 2022+ and offered opportunities for attendees to share and collaborate with other color design professionals. With a plethora of speakers, panelists, networking events, and multi-media presentations, our annual event was an enormous success.

As we continue to face 2021 with uncertainty, Color Marketing Group events will remain virtual for the remainder of this year. Similarly, our 2021 International Summit will be virtual this November 3-4 where we will reveal the 2023+ World Color Forecast™, the culmination of all our virtual color forecasting workshops held this year.



Color Speak - Bridging Color Communications



// UNITED STATES //

## International Association of Color Consultants/Designers IACC -NA

The IACC-NA has been undertaking as all organization are as this 2020 year has passed, a new communication boom of learning every technical interaction to stay connected and working together to further our association and knowledge base for color. Staying home may have brought out a “search and complete” of what we have put off; and we are the beneficiaries of that step. One of the ladder climbs within the IACC education application is to research a chosen concept that interests them after finishing attending the color educational seminars. This enables a member to further their status of membership from Associated member to Accredited member of the IACC. A member is asked to find a topic of interest where color is applied to research and then write a thesis about their topic to further methods of understanding color and to bring new insight and relevance. Whether it be a particular design application to interior projects, color in architecture, color as a selling method or perhaps understanding and adding to historical knowledge or psychological effects and methodology, each member who has done their thesis has found profound ways to apply was has been learned.

### NEW MEMBERS

The IACC-NA is pleased to announce three of our members Sheri Peterson IACC, Ellen Divers IACC and Karen Collins IACC to have completed the IACC accreditation criteria culminating with the review and acceptance of their thesis and have been awarded the professional title of: IACC Accredited Colour Consultant/Designer with Diploma.

Sheri Peterson, Victoria, BC, Canada wrote a thesis “Color in Hospitality: A Interior Designer’s Approach”, discusses her application of what she learned during the IACC seminars and how she

applied that knowledge to her hospitality design of country club projects. Of special note is her viewing those natural materials and light surrounding each facility and how she used that study of nature and textures within each facility.

Ellen Divers, Raleigh, North Carolina wrote a study titled “Beyond Hue: The Affective Response to Color and the Value- Hue Paradigm”. It is a study of how the eye and brain never see color by itself and this creates the reaction.

Karen Collins, Pataskala, Ohio wrote a thesis about her professional design work on Fire Stations and how color affects the well-being of first responders. “The Impact of Fire Station Color Design on Firefighter Mental Health” will be presented, as the two theses above, at the ISCC/IACCNA Virtual Color Impact 2021 in June.

### WEBINARS

Webinars presented this year for our members were “IACC 20 Principles” presented by Sheri Peterson. This is a power point presentation created for any IACCNA member to use for the purpose of discussion to create business by introducing the understanding of color and its effects in the interior. “Orientation to Research” presented by Ellen Divers. The power point presentation guided members through research methods and online websites for finding, storing and organizing research. It is also a great tool for our members.

### SEMINARS

The IACC/AICCE Academy education seminars went online this fall opening up our education to all English speaking students. We had participants from North America, Mozambique and Spain. We are all

finding just what can be done even though we cannot be within close distance of one another. 2020 has been a new learning curve.

We look forward as we continue our collaboration with the ISCC on Color Impact 2021, Color for the Built Environment in June 2021.



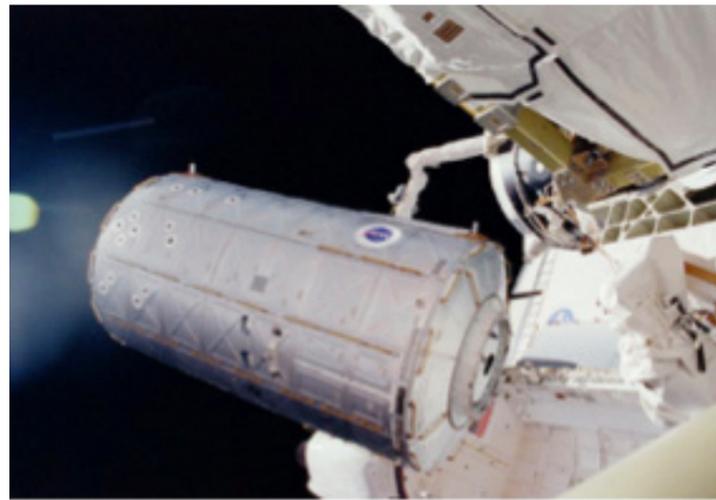
*New member Karen Collins, thesis work on Fire Stations and how color affects the well-being of first responders*



*New member Ellen Divers, study on “Beyond Hue: The Affective Response to Color and the Value- Hue Paradigm”*



*New member Sheri Peterson work on “Color in Hospitality: A Interior Designer’s Approach”*



# SG AD

## ART AND DESIGN

Chairman: Maria João Durão (Portugal)



International Space  
Station Destiny  
Module's design  
colour schemes

**SG AD has  
50 members from  
25 countries**

SGA&D has members from 32 countries, Argentina, Australia, Austria, Belgium, Brazil, Chile, China, Croatia, Egypt, Finland, France, Germany, Hungary, India, Iran, Italy, Israel, Korea, Japan, Mexico, Norway, Peru, Poland, Portugal, Singapore, Slovenia, Spain, Sweden, Switzerland, Turkey, UK and the USA.

The AIC Conference 'Natural Colours - Digital Colours', organised by Centre Français de la Couleur, in Avignon (26-28 November 2020) offered new lines of research in the areas of the Arts and Design.

Textiles and fabrics were dealt with in terms of relating fields of textile design and bio-plastic design, by D. Dumitrescu et al.; how colour archive documents are heritage of ancient fabrics, by A. Raimondo; A. Mouniera et al. led us to rediscover the faded colours of an 18th century tapestry kept in the Cité Internationale de la tapisserie in Aubusson; and Deepshikhaa focused on the textile crafts and traditions of India. Colour design research and natural dyes were addressed by D. Talbot and 'Cross-cultural comparison of color emotions and preference of cotton fabrics dyed with persimmon and indigo', by J. Choi et al.

Colour preference was the focus of Everyday Products by M. Baniani; a semiotic approach was adopted for a colour chart in a fashion collection, by Í. Dantas & C. Silva and in Brazilian food packaging, by C. Pereira, while I. Iljaž & K. Možina extended the study of connections in graphic design to Japan and Denmark. Colour qualities were assessed in design products, such as the visual-olfactory experience in design using odour, colour and light, by N. Arya et al.; make-up product shades contemplated the phase of design to sale by Clermont-Gallerande; in the perception of fineness in luxury watchmaking, by E. Berger & E. Leblanc. Evaluation of structural colour design was carried out by Y. Awano & M. Osumib; C. He, J. Zhang, R. Luo

related design and lighting as tool in 'Appearance simulator based on spectrum tunable LED lightings'; Colour and digital harmonies were discussed by Y. Charnay; and the contribution of diffuse reflectance on the knowledge of prehistoric red coloring matter, by E. Chalmin et al. Prehistoric art was also the theme for the on-site spectroradiometric analysis of Points cave (Aiguèze, Gard), by D. Lafon-Pham et al.; 'Experimental determination of relevant colours that describe the color palette of paintings' was the focus of J. L. Nieves et al.; the use of colorimetry to characterise Modigliani's color palette in his paintings of 1908-1919, by A. Genty-Vincent et al.; 'Natural colours in paintings: an eye-tracking study of Mathias Grünewald's Resurrection', by P. Fontoura et al., and 'The narrative pattern: a creative gesture in children's book illustrations through natural and digital colours', by C. Landreau.

Paintmaker and artist B. Diethelm presented colour harmonies in 'Less is more', and artists E. Trouvers, L. Tardy, and J-M. Steyaert dealt with properties and mutations of the pictorial visible; Z. Lotut with organic paint in contemporary painting; while Y. Kovanova approached contemporary art practice in 'Colour out of place'.

Finally, this SG on Arts and Design Report features Maria João Durão's experiments on colour schemes of the International Space Station Destiny Module's interior design, presently developed with the Lisbon School of Architecture Virtual Research Group, as well as four oil paintings by David Briggs.

Dr David Briggs (PhD [Geology], University of Queensland, 1989) is a painter and teacher of drawing, anatomy, painting and colour for painters at the National Art School (NAS), the Julian Ashton Art School and the University of Technology, Sydney. His publications include a chapter in the Routledge Handbook of Philosophy of Colour (2020) and his outreach websites The Dimensions of Colour (<http://www.huevaluechroma.com/>) and Colour Online (<https://sites.google.com/site/djcbriggs/colour-online>). David is President, NSW Divisional Chair and Colour Education Officer of the Colour Society of Australia, and chairs the organizing committee of the 2021 CSA national conference Colour Connections. He is a committee member of the AIC/ISCC Colour Literacy Project, an international educational initiative to provide age-appropriate colour curricula and state-of-the-art resources for teachers across science, art and industry, and CIE Technical Committee 1-99 Modelling Two-dimensional Colour Appearance Scales chaired by Professor Ronnier Luo. David has been teaching practical classes and workshops on colour for painters for 20 years and wrote and presented an undergraduate lecture course at NAS on the history of colour theory and practice in 2009-2011. In 2018 he gave an account of his approach to colour education as an invited speaker and workshop presenter at the ISCC/AIC Munsell Centennial Symposium in Boston. He currently teaches an online Short Course on colour for painters (<https://sites.google.com/site/djcbriggs/tmct>) at NAS.



David Briggs, View to Bondi, oil on board, 9 x 5 inch (2016)



David Briggs, Bondi - Tamarama, oil on board, 9 x 5 inch



David Briggs, South end of Maroubra Beach oil on board, 9 x 5 inch



David Briggs, Gordon's Bay, Clovelly, north side, oil on board, 9 x 5 inch



# SG CE

## COLOUR EDUCATION

Chairman: Robert Hirschler (Hungary and Brazil)  
Co Chair: Maggie Maggio (USA)

Figure 4. Announcement for the 2020 Annual Meeting in the new SGCE e-mail Newsletter

SG CE has  
210 members from  
39 countries

In January 2020 the AIC EC approved the ISCC/AIC Joint Colour Literacy Project (CLP). Following the completion of the project in 2024/25, the AIC SGCE will maintain the project website as a resource for teaching foundational concepts in colour education.

The objectives of the four-year project are:

- To promote practice-based, experiential explorations of colour, particularly from an early age.
- To advocate for teaching colour as an interdisciplinary subject and encourage STEAM (Science, Technology, Engineering, Art and Math) collaborations in K-12 programs.
- To Identify and address the most basic, current misconceptions and misinformation about colour, and expand the standard colour curriculum beyond the traditional color concepts taught in art and design.
- To develop a foundational colour education website which provides state-of-the-art, interdisciplinary information and materials on colour for use within a scaffolded academic curriculum, as well as the general public.

The first phase of the project is complete. In 2021 the team is going to develop and test prototype modules for art teachers (Figure 1).

The first phase concluded that basic colour education should focus on the concept of colour as a visual phenomenon (Figure 2).

The most important outcome of the CLP in the first phase was the definition of four cornerstones for teaching foundational colour concepts (Figure 3).

In June 2020 the CLP committee helped host the ISCC Virtual Color Impact 2020 Symposium on Color Education on Saturday, June 6th. The conference was reorganized as a virtual event following the cancellation of the ISCC Color Impact 2020 conference at Yale due to the Covid-19 pandemic. The initial website for the joint ISCC/AIC Colour Literacy Project was launched during the ISCC Color Impact 2020 virtual conference in June. This interim website provides basic information about project and the project team and includes the list of colour education resources mentioned by presenters during the ISCC conference.

The first SGCE email newsletter was published for members and subscribers in October 2020 (Figure 4).

The SGCE Annual Meeting was organized during the virtual AIC 2020 Avignon Conference. To accommodate different time zones, the SGCE hosted two virtual meetings for members, held on Saturday, November 21st. A total of 50 members participated in one or both meetings.

Each meeting started with a short presentation about AIC and the study group, followed by 30-minute Round Tables in small group breakout sessions.

The topics for the Round Tables included:

- Teaching Highlights - Describe a specific highlight or "breakthrough" moment that later impacted your approach to teaching color.
- Teaching Challenges - Describe one challenge you encounter in your current colour curriculum or program.

The second part of the meeting included an update and discussion on the ISCC/AIC Joint Colour Literacy Project and the opportunity to network with fellow members of SGCE.

A summary of themes from the Round Table discussion:

Experience/Experiential/Hands-on/Practice/Practical/Play/Learning by Doing/Happy Accidents/Engagement: These terms were used by many attendees to describe their preferred method of teaching color. This was accompanied, in the challenges section, by many references to the need for more and better tools/equipment and illustration/exercise/demonstrations.

Difficulty of teaching and learning color digitally/online/remotely: Always problematic, this has become more evident and a greater concern in the time of Covid.

Language/Terminology/Vocabulary/Translation: Many attendees noted the challenges posed by the many variations of color terms used in different disciplines/countries.

Minority Subject Status: Many comments referenced the lack of respect, lack of awareness, lack of equipment, lack of time for teaching colour.

Emotional Responses/Harmonies/Interactions: These came up often as subjects that need more emphasis or rethinking.

The breakout session format was successful in engaging members in timely discussions and will be repeated during the virtual SGCE Annual Meeting at AIC2021.

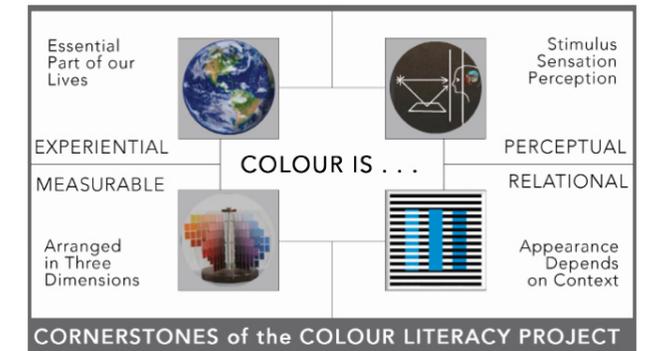


Figure 1. Timeline of the Colour Literacy Project

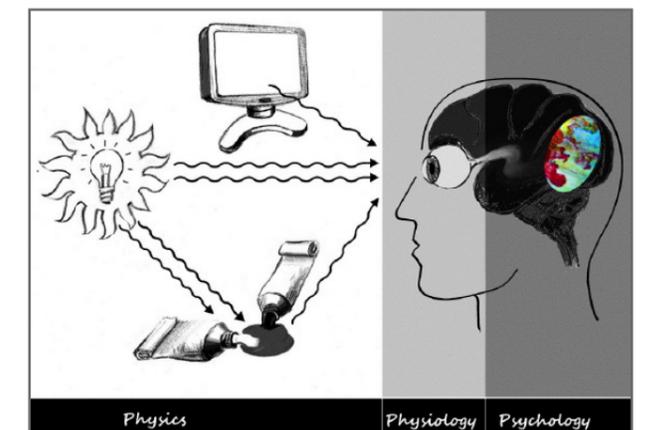


Figure 2. Colour is primarily a visual (perceptual) phenomenon.

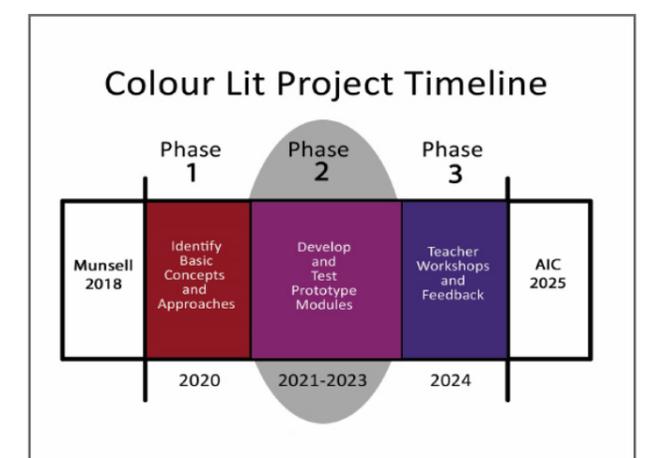
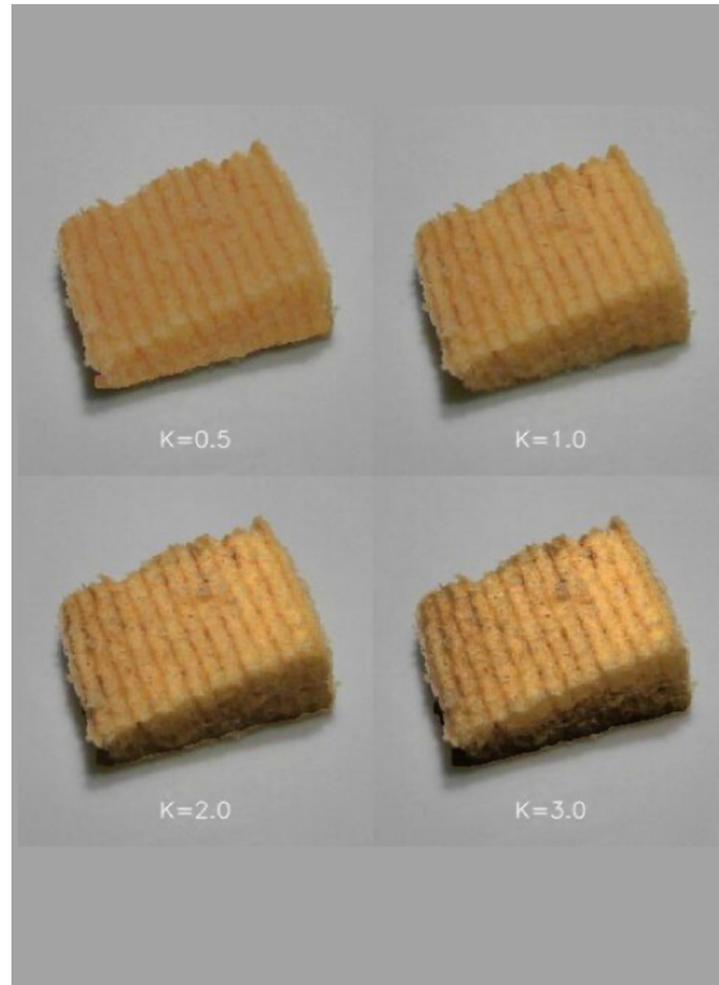


Figure 3. Cornerstones for the definition of colour.



# SG CVP

## COLOR VISION AND PSYCHOPHYSICS

Chairman: Katsunori Okajima (Japan)  
Secretary: Manuel Melgosa (Spain)

Fig.2 Modified luminance distribution of a Baumkuchen. The value K represents the magnification factor of the luminance histogram. The upper ones look fresh and soft whereas the lower ones look dried-up and relatively hard, indicating that the appearance of the baked cake can be modified by only manipulating the luminance distribution of the surface.

**SG CVP has  
98 members from  
16 countries**

The purpose of this Study Group (SG CVP) is to discuss basic and practical studies on colour vision, colour appearance, colour discrimination, brightness perception of colours, colour preference and application tools for planning and testing universal colour designs, and to share useful information among the members. We deal with topics from colour vision model to universal colour design including colour perception of the elderly.

### ACTIVITIES

1. Currently, the number of members of the SG is 98 from 16 countries.
2. We are planning to hold our meeting at AIC2022.
3. We are hosting the SG homepage using the following Internet site:  
“<http://www.okajima-lab.ynu.ac.jp/CVPSG/>”.
4. SG members published some impacted papers related to the SG. Kagimoto and Okajima set out to solve an unexplained problem why color appearance between surface color (e.g. a paper) and self-luminous color (e.g. a display) cannot be matched even when both colorimetric values are identical (Scientific Reports, 10, Article number:18350, 2020). They experimentally showed that the reason why color appearance between surface color and self-luminous color cannot be matched is difference of the spectral distributions but not difference of the devices (Fig.1). Their next step is to clarify the effect of the ipRGC (intrinsically photoreceptive Retinal Ganglion Cell) to the color appearance

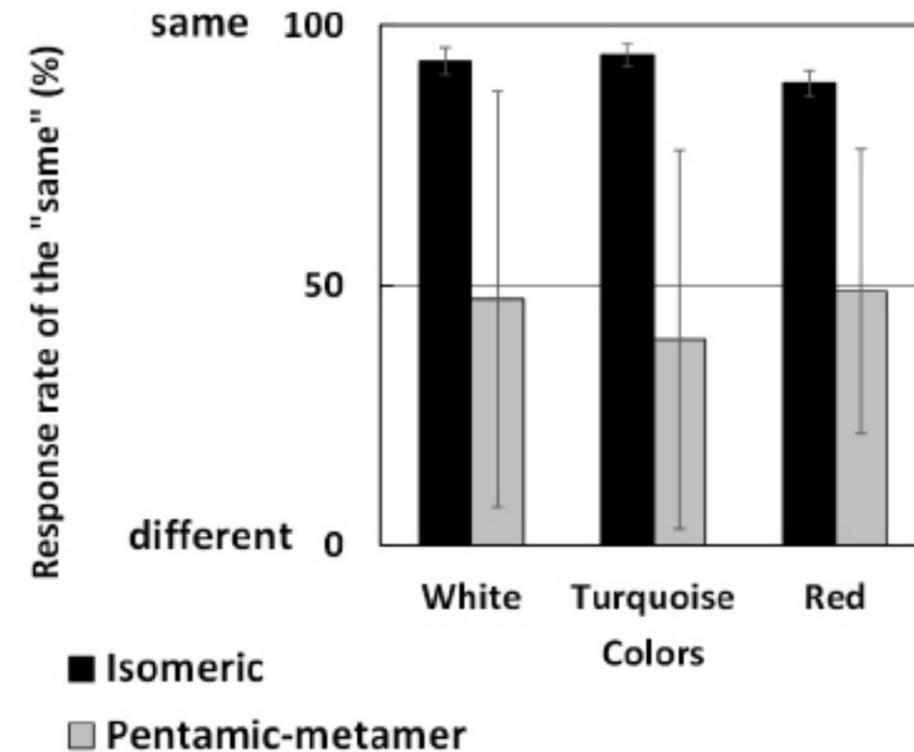


Fig.1 Comparison of results for isomeric and pentameric-metamer conditions. Isomeric conditions provide perfect color matching between different devices to everyone.

and finally to restructure of the color theory. In addition, an international group reported how the standard deviation (SD) of the luminance distribution of food images influences the perceived visual texture and the taste/flavour experience by using the AR technology (Scientific Reports, 10, Article number:16175, 2020). They found that the luminance SD of the food image affects the complex food appearance, such as moistness, wateriness and deliciousness expectation (Fig.2). In addition, they showed that such appearance changes crossmodally induce the taste/flavour modulation. The AR system described here can potentially be used to modify the taste and perceived texture of food simply by manipulating its appearance.

ФОНД ПРЕЗИДЕНТСКИХ ГРАНТОВ

AIC ColorLab

THE INTERNATIONAL CONFERENCE OF THE COLOR SOCIETY OF RUSSIA  
(The Second Russian Congress on Color)

SMOLENSK STATE UNIVERSITY

1-5 DECEMBER

SMOLENSK 2020

# SG ECD

## ENVIRONMENTAL COLOUR DESIGN

Co-Chair: Verena M. Schindler (Switzerland)  
Co-Chair: Yulia A. Griber (Russia)

[www.aicecd.org](http://www.aicecd.org)



International Scientific Conference of the Color Society of Russia (RUcolor2020),  
Announcement Poster

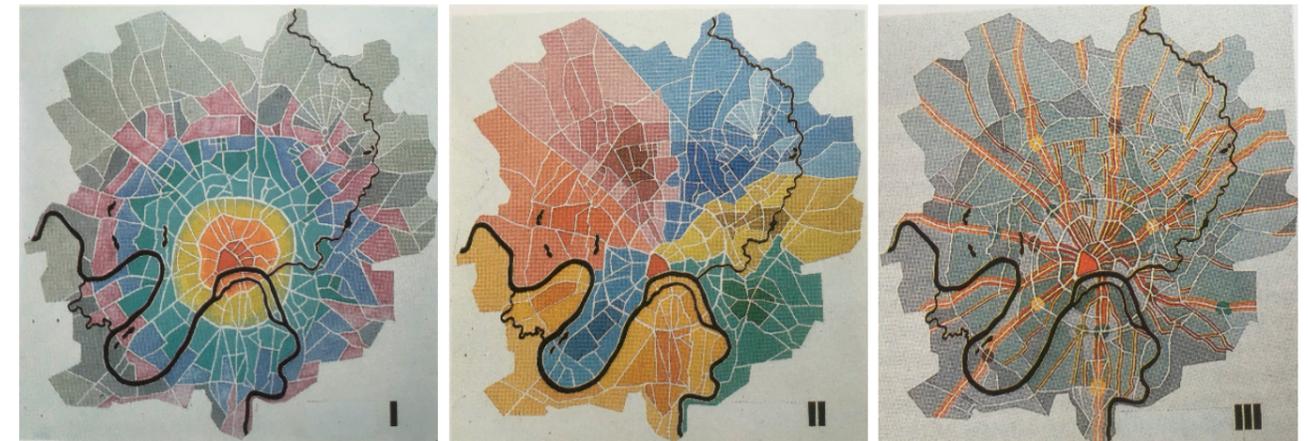
### New SG ECD members joining in 2020 included:

Enrique del Acebo Ibáñez (AR)  
Janet Best (UK)  
Davide Bossi (IT)  
Sabina Bračko (SI)  
Axel Buether (DE)  
Gisele Melo de Carvalho (BR)  
Joyce C. Cavallini (BR)  
Silvia Cejpková (SK)  
Camila Brito da Cruz (BR)  
Ítalo José de Medeiros Dantas (BR)  
Victor de Seauve (FR)  
Ellen Divers (US)  
Rui Barreiros Duarte (PT)  
Ashraf Youssef Ewais (EG)  
Louis Fagbohoun (BJ)  
Rui Grazina (PT)  
Alena Grigorash (IT)  
Domicela Jonauskaitė (CH)  
Yulia Kovanova (UK)  
Elizaveta Kushnirenko (IT)  
Carla Lobo (PT)  
Galyna McLellan (AU)  
Laurence Pauliac (FR)  
Carlos Esteban Prause (AR)  
Svitlana Pryshchenko (UA)  
Maurizio Rossi (IT)  
Andrea Urland (SK)  
Dragana Vasilski (RS)  
Mark Wentworth (UK)  
Andrey Efimov (RU) - honorary member

2020 began with the release of two important publications that not only summarized well the work done by the AIC Study Group on Environmental Colour Design members during the previous year, but also outlined their plans for the future: A review of the First Russian Congress on Color featuring nineteen papers by SG ECD members was included in *Color Research & Application* 2020 (45):183-185, and a special issue including a selection of ten extended papers presented at the same conference appeared in *Color Culture and Science Journal* 2020:12(1). The special issue was announced on 21 March 2020 as a contribution of the SG ECD (representing Switzerland and Russia) at the International Colour Day 2020.

Movement restrictions and limitations of gatherings implemented at the beginning of 2020 in response to the coronavirus pandemic did not impede but rather furthered the activities of the SG ECD. At the end of March, the SG ECD chairs successfully applied to the Presidential Grant Foundation of Russia for funding of the Second Russian Congress on Color, enabling the organization of the International Conference of the Color Society of Russia, RUcolor2020. The conference took place online 1-5 December 2020. Participation was free to all attendees becoming one of the largest international scientific events of the year in Russia.

RUcolor2020 was organized by the AIC Study Group on Environmental Colour Design in collaboration with Smolensk State University; the Research and Education Center "Color Lab"; the Institute of Scientific Information for Social Sciences of the Russian Academy of Sciences; and, the Soglasie publishing company in Moscow. In total 182 authors from twenty-seven countries and seventeen



Plan of Urban Color Design of Moscow (1929), conceived by Lev Antokolsky and reconstructed by Andrey Efimov (1970): I - Circular Coloring; II - District Coloring; and, III - Arterial Coloring.

regions of the Russian Federation presented their research findings. Fifty-two colour experts from twenty-two countries were invited to peer review both abstracts and papers. The reviewers (mostly SG ECD members) provided constructive suggestions and comments, some even edited the English of the abstracts. We would like to thank them here for the successful collaboration! The online format gave conference attendees the unique opportunity to listen to the talks of fifteen internationally acclaimed invited speakers. Eight of them are SG ECD members: Enrique del Acebo Ibáñez (AR), Axel Buether (DE), José Luis Caivano (AR), Domicela Jonauskaitė (CH), Jean-Philippe Lenclos (FR), Verena M. Schindler (CH), Juan Serra (ES), and Andrey Efimov (RU), the last who was awarded an honorary membership in recognition of his seminal work as a colour designer and educator in Russia. In addition to the invited talks and oral presentations, the five active study groups of the International Colour Association were presented to the audience, followed by a meeting of the SG ECD on the theme "Colour in Space and Time: A Virtual Journey to Places around the World" that was conducted via three-minute presentations. In addition the conference programme not only included a discussion about books on colour that participants had published within the last five years, but even a virtual tour around Smolensk ([www.rucolor2020.ru/EN](http://www.rucolor2020.ru/EN)).

The conference was streamed live on YouTube making it accessible to interested viewers from around the world. Questions to the speakers could be asked not only in Zoom, but also using the YouTube chat feature and WhatsApp messenger. This ensured interactivity between conference participants on par with a face-to-face format. At the end of the sessions, participants did not hurry to leave the Zoom meeting but continued to discuss and share their impressions. In total the conference lasted almost forty-three hours. Video recordings of all five conference days are available on YouTube:

Day 1: <https://youtu.be/yi0-1vYr9BI>  
Day 2: <https://youtu.be/0gxwj7XXA4>  
Day 3: <https://youtu.be/qExuyvBX1mU>  
Day 4: <https://youtu.be/dBiuuMaRtR8>  
Day 5: <https://youtu.be/l55XTaV-UGw>

The conference results are fourfold. Two publications include Russian and English contributions: *The International Scientific Conference of the Color Society of Russia: Book of Abstracts* (Smolensk: Smolensk State University Press, 2020) and *The International Scientific Conference of the Color Society of Russia: Selected Papers* (Smolensk: Smolensk State University Press, 2021), which includes fifty papers, fourteen in Russian and thirty-six in English. Two additional publications *The Scientific Notes of the Color Society of Russia*, Vol. 2, 2020, a special issue on colour design for the elderly, and *The Sociological Studies* 1(3), 2020, a special issue for young scientists, further include nineteen papers written in Russian or translated from English (<http://color-lab.org/publikacii/>).

As well, at the AIC 2020 Interim Meeting (FR) held online, SG ECD member Yulia Kovanova won the Robert W. G. Hunt Poster Award with a contribution entitled "Colour Out of Place: Extinction Explored through Art Practice," Edinburgh College of Art, University of Edinburgh, Scotland.

We thank the SG ECD members for their engaged participation!

### RUcolor2020 Chairs



Prof. Dr. Yulia A. Griber  
Smolensk State University,  
Smolensk, Russia



Verena M. Schindler MA, MA, MSc  
Art and Architectural Historian,  
Zollikon, Switzerland

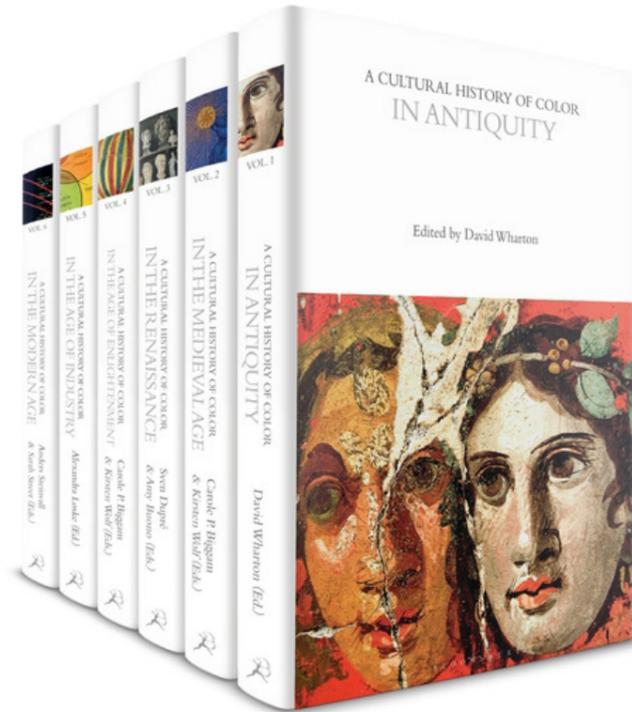


Figure 2. A cultural history of colour.

The purpose of the AIC Study Group on the Language of Colour (SGLC) is to share information on and discuss studies on psycholinguistics, computational linguistics, semantics and semiotics of colour names and the relation of these to perception of colour and its underpinning cognitive and neural mechanisms. Key topics are colour cognition, colour naming and categorisation, colour memory, colour semantics and semiotics, cross-cultural differences and their intersection with digital technologies. Currently the SGLC has 195 registered members from 46 countries. Social networking platforms of the SGLC in Twitter (@aic\_lc) and Facebook (@languageofcolour) have currently 558 and 903 followers respectively.

In 2020, members of SGLC focused their activities on contributing to (online) conferences and journal publications. Dimitris Mylonas presented (remotely) his work with Andrew Stockman and Lewis Griffin on comparing online and offline colour naming experiments at the first London Imaging Meeting, UK, organised by IS&T. Galina

# SG LC LANGUAGE OF COLOR

Chairman: Dimitris Mylonas (UK)  
Co-Chairman: Galina Paramei (UK)

<http://language-of-color.aic-color.org/>



SGLC has 195 members from 46 countries

Twitter // @aic\_lc 558 followers

Facebook // @languageofcolour 903 followers

Paramei gave a (remote) talk at the Linguistic Forum 2020: Language and Artificial Intelligence, Moscow, Russia, on the ongoing study in Computational Linguistics co-authored by colleagues from Moscow and Kazan, Russia; the talk was titled: Microdiachronic investigation of Russian colour terms buryj and korichnevij in the corpus of Google Books Ngram. Following the talk, a relating paper was accepted for the CEUR Workshop Proceedings, Linguistic Forum 2020: Language and Artificial Intelligence, <http://ceur-ws.org/> [Bochkarev, V. V., Shevlyakova, A. V., Paramei, G. V., & Rakhilina, E. V. (2021). A quantitative study of Russian colour terms buryj and koričnevij in the Google Books Ngram corpus (in press).]

Members of our group have also published a number of publications on cognitive aspects of colours in 2020. In particular, Mari Uusküla and David Bimler published their research on colour-term modifiers in eight European languages (Figure 1), where they demonstrated that the use of achromatic modifiers, such as 'light', 'dark' and 'bright' is not universal. [Uusküla, M., & Bimler, D. L. (2020). When

does "bright" mean "prototypical"? Color-term modifiers in eight European languages, examined with color-survey data. *JOSA A*, 37(5), A305-A312. <https://doi.org/10.1364/JOSAA.382399>].

Galina Paramei and David Bimler co-authored a review paper Language and Psychology [Paramei, G. V., & Bimler, D. L. (2021). Language and psychology. In A. Steinvall & S. Street (Eds.), *A Cultural History of Color. Vol. 6, The Modern Age: From 1920 to present* (pp. 117-134). London: Bloomsbury]. The publication is part of the comprehensive 6-volume *A Cultural History of Color*, covering various aspects of colour across various cultures from Antiquity to the Modern Age, edited by Carole P. Biggam and Kirsten Wolf, published by Bloomsbury (Figure 2).

Dimitris Mylonas co-authored a journal paper with Lewis Griffin on the coherence of achromatic, primary and basic classes of colour categories. They found that achromatic and basic colour categories share features that distinguish them from other categories but this was not the case for primary colour categories. [Mylonas, D., & Griffin, L. D. (2020). Coherence of achromatic, primary and basic classes of colour categories. *Vision Research*, 175, 14-22. <https://doi.org/10.1016/j.visres.2020.06.001>].

Beyond these regular research and scholarly activities, in 2020 the SGLC members significantly contributed to the comprehensive Encyclopaedia of Color Science and Technology published by Springer. Lindsay MacDonald was the editor of the Language and Categorization section of the new edition of the Encyclopaedia. The SGLC Chair, Dimitris Mylonas, wrote a chapter Crowdsourcing of Multilingual Color Names (see Figure 3); the SGLC Co-Chair, Galina Paramei, authored a chapter Color Categorization: Patterns and Mechanisms of Evolution. Further SGLC members, Prutha Deshpande, contributed a chapter Bilingual Color Naming / Categories and Yasmina Jraissati a chapter Mechanisms of Color Categorization. This is an exceptional recognition of the efforts of

our members on promoting research on the Language of Colour.

Our next SGLC meeting will take place at the AIC 14th Congress 2021 (to be held online) on 30/8-3/9/2021 in Milan, Italy, and organised by the Associazione Italiana Colore. You can find more information about the SGLC at our new page hosted on the AIC website: [https://aic-color.org/sg\\_lc](https://aic-color.org/sg_lc). Note that on our existing website, <http://www.language-of-color.aic-color.org/> and social media accounts we continue to share the latest news on the development of the SGLC members' research on the language of colour and the related resources. News related to the scope of SGLC are always welcome.

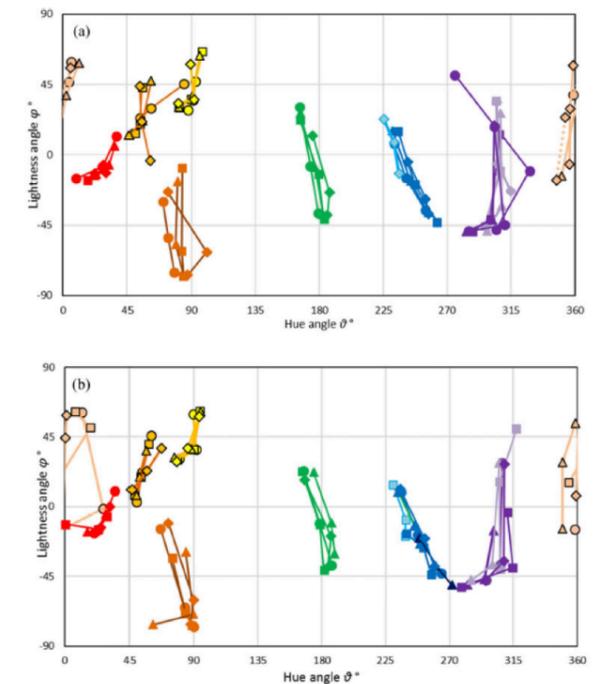


Figure 1. (a) Centroids of distributions for BCTs used as plain and modified labels, linked into light-to-dark trajectories, in Estonian (circles), Finnish (squares), Latvian (triangles), and Lithuanian (diamonds). (b) Trajectories for BCT usage in Czech (circles), Hungarian (diamonds), Italian (squares), and Turkish (triangles), (Uusküla & Bimler, 2020).



Figure 3. Classification synthetic image (left) by observer-based colour names in English (middle) and German (right). Each category is represented by the colour of its centroid (Mylonas, 2020).

// REMEMBERING //

## IN MEMORIAM

*Every year we remember those  
that we have lost but have left  
behind their contributions to  
the color world.*

*by Roy Osborne  
Valérie Bonnardel*

### Richard Anuszkiewicz (1930-2020)

North American painter. A student of Josef Albers and an outstanding colourist. Co-author of 'Richard Anuszkiewicz: Paintings and Sculptures, 1945-2001', with David Madden (1981- ) and John Thomas Spike (1951- ), and other exhibition catalogues.

### Siegfried Wyler (1919-2020)

Swiss linguist and researcher in semantics. Author of 'Colour and Language: Colour Terms in English' (1992) and 'Colour Terms in the Crowd: Colour Terms in Use' (2006).

### Harald Küppers (1928 - 2020)

Harald Küppers is especially known for his efforts to create a color theory. His goal was to replace the still influential theories of Goethe, Ostwald and Itten with a universal theory of color, which was to renew the practice of color education and could also be a useful tool for the industry, especially for the print media.

### Robert Charles Birney (1925-2020)

North American psychologist, historian and editor. Co- editor with Richard Collier Teevan (1919-2006) of 'Color Vision: An Enduring Problem in Psychology' (1961). Author/editor of 'Instinct: An Enduring Problem in Psychology' (1961), 'Fear of Failure' (1969), and various other titles on psychology.

### Horace Basil Barlow FRS (1921-2020)

Horace Barlow (1921-2020) died peacefully on 5th July 2020 in Cambridge surrounded by his family. Horace Barlow was a pioneer thinker and a founding father of the modern neuroscience; his work and thinking influenced the scientific community for seven decades. His paper "summation and inhibition in frog's retina" (1953, J. Physiol.) was prefiguring the concept of neuron's responses specificity such as 'fly detector'. Horace Barlow made rare incursion in the domain of colour vision, but when he did it was to address the fundamental question of the human colour system dimensionality: "What causes trichromacy? A theoretical analysis using comb-filtered spectra." (1982, Vis. Res.) whose answer was to be found in the characteristics of natural colour signals. Horace Barlow will be much missed by those who had the privilege to know him.

Tribute from Trinity College: <https://www.trin.cam.ac.uk/news/tributes-paid-to-professor-horace-barlow/>

Tribute from The Guardian: <https://www.theguardian.com/science/2020/aug/23/horace-barlow-obituary>

ROUX Jean-Paul (1925-2009),  
Faïences d'azur ('Blue ceramics') [French historian of Islam] Paris (France) Imprimerie Nationale

MICHAUD Roland (1930-2020)  
Faïences d'azur ('Blue ceramics') [French historian of Islam]

BOVA, Benjamin (Ben) William (1932-2020)  
The Beauty of Light [North American writer]

BRAULT, Gerard Joseph (1929-2020)  
Early Blazon: Heraldic Terminology in the Twelfth and the Thirteenth Centuries, with Special Reference to Arthurian Literature [North American linguist, historian & educator]

GEDDES-BROWN, Leslie (1942-2020)  
The Colour Design File [Leslie Stevenson: British journalist & writer]

GRANT, Edward (1926-2020)  
A Source Book in Medieval Science [North American science historian]

HUSE, Robert D. (1941-2020)  
A Contribution towards Standardization of Color Names in Horticulture [North American physician]

Iván Albert (1931-2020)  
Símbolo y color en la obra de José Martí ('Symbol and colour in the work of José Martí') [Spanish psychologist]

MARSHALL WILSON, R. (1939-2020)  
The Vocabulary of Organic Chemistry [North American chemist]

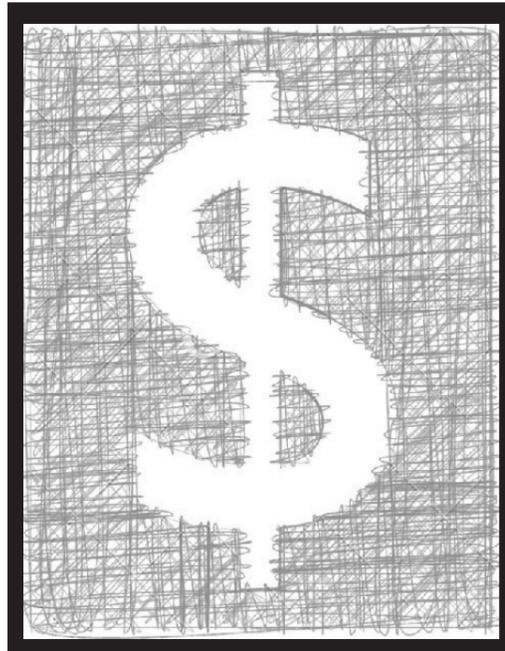
MORRILL, Terence C. (1940-2020)  
The Spectrometric Identification of Organic Compounds [First text on the identification of organic compounds using spectroscopy]

FRIEDMAN, Joan M. (1938-2020)  
Color Printing in England, 1486-1870 [North American historian]

SIMONDO, Piero (1928-2020)  
Il colore dei colori ('The colour of colours') [Italian Situationist artist & editor]

// FINANCIAL REPORT //

## FINANCIAL REVIEW FOR 2020



Reconciliation statements of AIC bank  
and PayPal accounts for year  
1-Jan-2020 to 31-Dec-2020.

Prepared by the AIC 2020-21 Treasurer,  
Ralf Weber.

All figures are in Australian dollars (AUD).

Approved by AIC 2020-21 Auditors,  
Berit Bergström and Jose Luis Caivano.

## 2020 Financial Status

AIC has three operating accounts: Business, Business Savings  
and PayPal.

**TOTAL FUNDS for 2020 // AUD 25,193.47**

### PayPal (Australia)

Opening Balance on 1st January 2020	\$ 1,182.71	
Income from members	+2,186.18	
Service Fees	-78.10	
Payments	-184.67	
Expenses	-2,526.22	Payments incl. service fees expenses for student awards, dropbox, wild apricot membership website
Closing Balance on 31st December 2020	AUD \$ 579.90	

### St. George Bank Freedom Business Current Account (Australia)

Opening Balance on 1st January 2020	1,850.52
Income from members	3,097.95
Transfer from PayPal Account	0.00
Transfer from Savings	0.00
Expenses	-\$745.42
Closing Balance on 31st December 2020	AUD \$4,203.05

see itemized expenses below

#### ITEMIZED EXPENSES

Account service fees	120.00
Foreign currency payment fee	30.00
Printing of Annual Report	512.42
Fair Trade Fee	83.00
TOTAL	AUD \$745.42

### St George Bank Business Access Saver Account (Australia)

Opening Balance on 1st January 2020	20,398.24
Transfer to Savings	0.00
Interest	12.28
Closing Balance on 31st December 2020	AUD \$ 20,410.52



**AIC**

International Colour Association  
Internationale Vereinigung für die Farbe  
Association Internationale de la Couleur