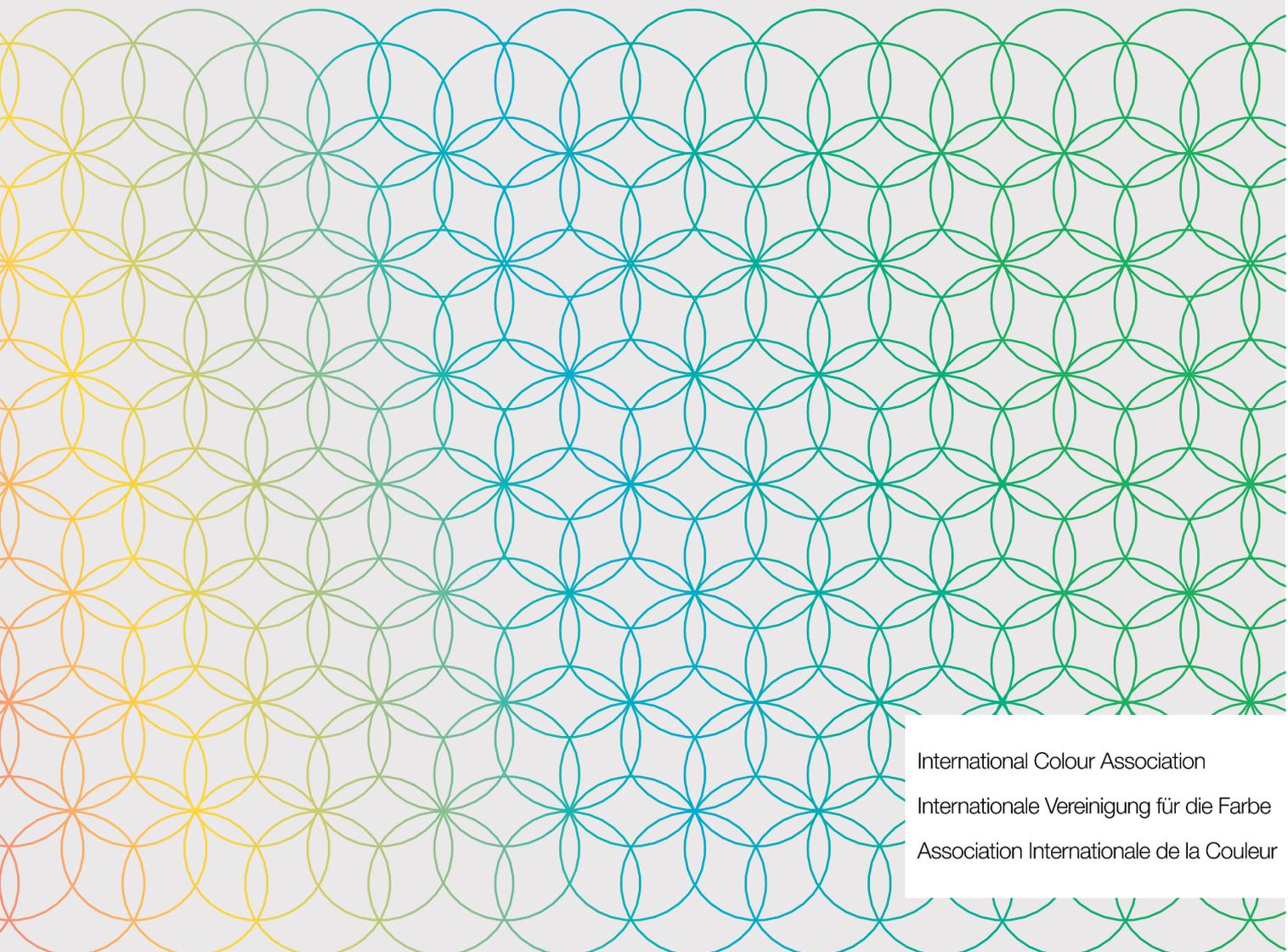




# 2018 ANNUAL REVIEW

Published July 2019



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

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Lisbon Interim Meeting closing reception

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



# AIC 2018 PRESIDENT'S REPORT

by Tien-Rein Lee



The Association Internationale de la Couleur (AIC) celebrates its Fifty-first Anniversary this year. Founded in 1967, AIC membership now stands at 28 regular members, 3 associate members and 8 individual members, looking back to five successful decades.

In 2018 with the new EC we have many “firsts”:

First of all, I like to thank Leslie Harrington for her tireless efforts in building the new integrated AIC website. This new integrated AIC website includes managerial functions as well as improved membership communications and an integrated payment system. The new system allows for a more integrated performance through intelligent data-management. We keep working on updating and enriching the content of the AIC website. I would like to thank Vien Cheung and Jose Caivano for their great support. We believe that the changed service system will result in a better member experience, such as ease of migrating and on-boarding new EC members.

Next, I like to mention the newly published AIC annual review. This latest issue was published in 2018, listing AIC color activities of 2017. I warmly thank Leslie and Vien for the excellent work they have done. The Annual Review 2017 is available for download on the AIC website.

At AIC 2018, the new AIC Executive Committee has been formed with Nick Harkness becoming the Immediate Past President, Vien Cheung the Vice President, and Leslie Harrington the Secretary/Treasurer. As the other Committee Members, I congratulate Maurizio Rossi, Paula Csillag, Takahiko Horiuchi, and Ralf Weber who have been successfully appointed at the AIC 2017 election. AIC 2018 continued the tradition of the AIC being a truly global organization: A total of 261 abstracts were submitted and evaluated by 65 international reviewers. The final program integrated 77 oral presentations and 58 posters, being presented to an audience comprised of 220 registered international color experts from 41 countries. Five keynote lectures were given by Jose Caivano, Tomás Taveira, Luísa Arruda, Byron Mikellides, and João Brehm. I would like to express my heartfelt appreciation to the Co-chairs Margarida Gamito and Maria Joao Durao with their team at Associação Portuguesa da Cor for having organized the outstanding program of the AIC 2018 Interim Meeting in Lisboa. This conference has been an outstanding, magnificent event.

Also in 2018, the new AIC Student Paper Awards scheme has been running for the first time. Students are encouraged to present their work at the AIC meetings and to benefit from interaction with the international color community. It is offered for final-year undergraduates (bachelor degrees) and postgraduates (any stages of masters and doctoral degrees). There have been 19 submissions from 12 countries, and awards have been given to Saara Pyykkö Saara Pyykkö (Aalto University, Finland), Joana Saes (CIAUD - FAULISBOA, Portugal), Gyeonghwa Lee (University of Leeds, UK), Yi Zhuang (University of Tsukuba, Japan), Giorgia Chinazzo (EPFL, Switzerland), and Aicha K. Diakite (Technische Universität Berlin, Germany).

And the AIC Proceedings were published by the International Colour Association under a unique serial publication ISSN/eISSN as continuing resource since 2018.

Another highlight and achievement was the 2018 Munsell Symposium: In order to honor Munsell's legacy of inter-disciplinary collaboration, the AIC has closely worked together with ISCC to conduct this event, bringing together close to 200 participants (color scientists, artists, industrialists and educators) from 27 different countries for five days of talks, seminars and workshops by invited presenters.

On initiative of Maria João Durão and chaired by her now, the new Study Group on Arts and Design has been created. It conducts research on the projects and results of artists and experts exploring various new art techniques, reflecting new trends and innovative concepts from the fields of new media, postmodern thought and history. In this regard, contemporary arts and design practices transcend borders and describe new contexts, adding new perspectives to the world of color study. This new Study Group will greatly contribute the AIC's worldwide cooperation in fields of advanced research, creativity, and innovation.

Furthermore, the AIC statutes and guidelines have been amended. In consultation with the former auditors Paula Alessi, Frank Rochow and the current auditors Berit Bergström, Jose Caivano and EC members, we have updated the AIC statutes and guidelines according to the approved changes. We keep working through regular online Executive Committee meetings: This new mode of online-attendance was first tried in 2016 and proved very useful in case that EC members are not able to attend a meeting in person. Based on the good experience, this newly established communication channel facilitates flexible and efficient new ways of discussions. And, for the first time, it has also been applied for internet voting. Now, the GoToMeeting internet EC meeting is arranged on a regular basis.

Future AIC meetings are scheduled in Buenos Aires, Argentina in 2019 hosted by Grupo Argentino del Color, in Avignon, France in

2020 hosted by Centre Français de la Couleur and the next Congress in Milan, Italy in 2021 hosted by Gruppo Del Colore – Associazione Italiana Colore.

None of the above projects would have been possible without the support of a great team: i.e. Nick Harkness Immediate Past President, Vien Cheung Vice President, Leslie Harrington Secretary/Treasurer, Jose Caivano AIC Webmaster, the Chairs and Co-Chairs of the AIC Study Groups, Robert Hirschler, Maggie Maggio, Verena Schindler, Yulia Griber, Katsunori Okajima, Manuel Melgosa, Dimitris Mylonas and Galina Paramei, and JAIC Editor-in-Chief Stephen Westland. Also, I want to thank all EC members for having dedicated themselves whole-heartedly to enhancing the performance of the AIC: Thank you for sharing responsibilities towards AIC activities in order to better serve the global color communities.

Lastly, in the name of the AIC Community and from the position of the AIC President as well as a friend, I like to express my deep-felt gratitude to Nick Harkness, the current Immediate Past President, for his great contribution and excellent achievements: Thank you very much.

Tien-Rein Lee  
President  
Association Internationale de la Couleur

*TR was elected Vice President for the 2016-17 term. He will become the Past President for 2020-21.*

## // GLOBAL MEMBERSHIP //

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

GRUPO ARGENTINO DEL COLOR  
[aike.fadu.uba.ar/sitios/sicyt/color/gac](http://aike.fadu.uba.ar/sitios/sicyt/color/gac)  
 María Paula Giglio (President)  
 María Eugenia Bravo (Secretary)

**AUSTRALIA**

COLOUR SOCIETY OF AUSTRALIA  
[www.coloursociety.org.au](http://www.coloursociety.org.au)  
 Judith Briggs (President)  
 Glenys Thomson (Secretary)

**BELGIUM**

INTERDISCIPLINARY COLOUR ASSOCIATION  
<https://ica-belgium.org/>  
 Janneke Hanenburg (President)  
 Filip Roscam (Secretary)

**BRAZIL**

ASSOCIAÇÃO PRÓ-COR DO BRASIL  
[www.procor.org.br](http://www.procor.org.br)  
 Paula Csillag (President)  
 Fabio Cuppo (Treasurer)

**BULGARIA**

COLOR GROUP BULGARIA  
[www.bgcolorgroup.org](http://www.bgcolorgroup.org)  
 Ralitza Gueleva-Tzvetkova (President)  
 Sofia Anguelova (Secretary)

**CANADA**

COLOUR RESEARCH SOCIETY OF CANADA  
[www.colourresearch.org](http://www.colourresearch.org)  
 Doreen Balabanoff (President)  
 David Griffin (Vice President)

**CHILE**

ASOCIACIÓN CHILENA DEL COLOR  
[www.asociaciondelcolor.cl](http://www.asociaciondelcolor.cl)  
 Paz Cox Irrarrazaval (President)  
 Ingrid Calvo Ivanovic (Outreach)

**CHINA**

COLOR ASSOCIATION OF CHINA  
[www.fashioncolor.org.cn](http://www.fashioncolor.org.cn)  
 Haisong Xu (President)  
 Yu Ma (Secretary)

**CROATIA**

HRVATSKA UDRUGA ZA BOJE  
[www.hubo.hr](http://www.hubo.hr)  
 Martinia Ira Glogar (President)  
 Ivana Ziljak Stanimirovic (Secretary)

**FINLAND**

SUOMEN VÄRIYHDISTYS SVY RY  
[www.svy.fi](http://www.svy.fi)  
 Sini Vihma (President)  
 Harald Arnkil (Vice-president)

**FRANCE**

CENTRE FRANÇAIS DE LA COULEUR  
[www.cf-couleur.fr](http://www.cf-couleur.fr)  
 Patrick Callet (President)  
 Barbara Blin-Barrois (Vice-President)

**GERMANY**

DEUTSCHER VERBAND FARBE  
[www.dfwg.de](http://www.dfwg.de)  
 Frank Rochow (Chairman)  
 Axel Buether (Vice-Chairman)

**GREAT BRITAIN**

THE COLOUR GROUP (GREAT BRITAIN)  
[www.colour.org.uk](http://www.colour.org.uk)  
 Elza Tantcheva-Burdge (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](http://www.gruppodelcolore.it)  
 Maurizio Rossi (President)  
 Veronica Marchiafava (Secretary)

**JAPAN**

COLOR SCIENCE ASSOCIATION OF JAPAN  
[www.color-science.jp](http://www.color-science.jp)  
 Shin'ya Takahashi (President)  
 Katsunori Okajima (Liaison)

**KOREA**

KOREAN SOCIETY OF COLOR STUDIES  
[www.color.or.kr](http://www.color.or.kr)  
 Jinsook Lee (President)  
 Hyeryeoun Kim (Secretary)

**MEXICO**

ASOCIACION MEXICANA de INVESTIGADORES del  
 COLOR A.C.  
[www.amexinc.mx](http://www.amexinc.mx)  
 Liliana Monroy Mendoza (President)  
 Carlos Trillas Salazar (Secretary)

**THE NETHERLANDS**

STICHTING KLEURENVISIE  
[www.kleurenvisie.nl](http://www.kleurenvisie.nl)  
 Kim Van Savooyen (Director)  
 Jan de Vletter (Secretary)

**NORWAY**

FORUM FARGE  
[www.forumfarge.no](http://www.forumfarge.no)  
 Mette L'orange (President)  
 Marius Pedersen (Secretary)

**PORTUGAL**

ASSOCIAÇÃO PORTUGUESA DA COR  
[www.apcor.org](http://www.apcor.org)  
 Margarida Gamito (President)  
 Maria Cristina Pinheiro (Secretary)

**SLOVENIA**

SLOVENSKO ZDRUŽENJE ZA BARVE  
[www.szb.si](http://www.szb.si)  
 Sabina Bračko (President)  
 Jasmina Weiss (Secretary)

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

**SPAIN**

COMITÉ ESPAÑOL DEL COLOR  
<http://www.sedoptica.es/SEDO/color/index.htm>  
 Juan Luis Nieves (President)  
 Esther Perales (Secretary)

**SWEDEN**

STIFTELSEN SVENSKT FÄRGCENTRUM  
[www.colourspot.org](http://www.colourspot.org)  
 Lena Anderson (Chairman)  
 Berit Bergström (Secretary)

**SWITZERLAND**

PRO/COLORE  
[www.procolore.ch](http://www.procolore.ch)  
 Sabeth Tödtli (Geschäftsstelle)  
 Verena M Schindler (Liaison)

**TAIWAN**

COLOR ASSOCIATION OF TAIWAN  
[www.color.org.tw](http://www.color.org.tw)  
 I-Ping Chen (President)  
 Tracy Hsieh (Deputy Secretary)

**THAILAND**

THE COLOR GROUP OF THAILAND  
[www.thaicolourgroup.org](http://www.thaicolourgroup.org)  
 Aran Hansuebsai (Chairman)  
 Uravis Tangkijviwat (Secretary)

**USA**

INTER-SOCIETY COLOR COUNCIL  
[www.iscc.org](http://www.iscc.org)  
 John Conant (President)  
 Paula Alessi (Liaison)



// BEHIND THE SCENCE //

**2018-19  
AIC EXECUTIVE COMMITTEE**



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



**Vice President**  
*VIEN CHEUNG*  
UK



**Past President**  
*Nick Harkness*  
AUSTRALIA



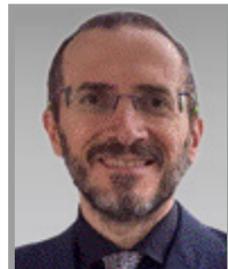
**Secretary | Treasurer**  
*Leslie Harrington*  
USA



**Ordinary Member**  
*Paula Csillag*  
BRAZIL



**Ordinary Member**  
*Takahiko Horiuchi*  
JAPAN



**Ordinary Member**  
*Maurizio Rossi*  
ITALY



**Ordinary Member**  
*Ralf Weber*  
GERMANY

**Auditors 2018-19**



*Berit Bergström*  
SWEDEN



*Jose Luis Caivano*  
ARGENTINA

*Electrions for the 2020-21  
term will be held at the  
2019 midterm meeting*

// GLOBAL MEMBERSHIP //

**AIC ASSOCIATE & INDIVIDUAL  
MEMBERS**

*ASSOCIATE MEMBERS*

Color Marketing Group - CMG, USA  
Internatonal Accociation of Color  
Consultants/Designers, North America  
Colour Museum

*INDIVIDUAL MEMBERS*

Jacqueline Carron, France  
Yulia Griber, Russia  
Zena O'Connor, Australia  
Kazim Hilmi Or, Turkey  
Ines Klemm, Switzerland  
Andrea Urland, Slovak Republic  
Nozomu Yoshizawa, Japan  
Pietro Zennaro, Italy

**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 Kleurenstudie (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.



**41 Countries**  
**220 Participants**  
**77 Oral Presentations**  
**58 Poster Presentations**  
**261 Abstracts**  
**65 Reviewers**

# AIC INTERIM MEETING

## LISBON, PORTUGAL

Hosted by Associação Portuguesa da Cor (APCor)



The 2018 AIC Interim Meeting AIC LISBOA 2018 was held at Calouste Gulbenkian Foundation, in Lisbon, between 26 and 28 September, and hosted by the Associação Portuguesa da Cor (APCor), bringing to Lisbon a multidisciplinary group of experts and specialists who use colour and light within a broad range of domains with a focus on human comfort.

### CONFERENCE FOCUS

The Conference topic was “Colour and Human Comfort”, which aimed to relate the human being with comfort through the transdisciplinary knowledge of Colour. And, within this topic, a large range of subthemes were included:

- Colour in the Built Environment
- Colorimetry
- Colour in Art and Design
- Colour and Lighting
- Colour and Culture
- Colour and Health

- Colour and Physiology
- Colour and Psychology
- Digital Colour
- Colour and Landscape

A total of 261 abstracts were submitted and evaluated by 65 international reviewers. The programme integrated 77 oral presentations and 58 posters. The Conference was attended by 220 registered international colour experts from 41 countries. Four AIC Study Groups met in parallel sessions.

### CONFERENCE ACTIVITIES

The Pre-conference activities included four workshops that took place at Lisbon School of Architecture.

The Welcome Reception was held at Lisbon School of Architecture garden and joined together dinner and singing by Portuguese Coral Group – MUSAICO.

The Gala Dinner was on board the ‘Confeitaria Nacional’ boat, along the Tagus river, an unusual perspective to appreciate Lisbon by night and at the sound of a Fado singer and guitar players.

For those lucky enough to be able to stay one more day, two post-conference excursions were offered, a tour of the village of Sintra, with visits to the Royal Palace – Palácio da Vila, the Monserrate Palace and Gardens; or an excursion through Old Lisbon with a visit to the Tiles Museum – Museu do Azulejo.

### A FIRST IN LISBON

At the AIC LISBOA 2018 new initiatives were launched:

- For the first time, AIC Proceedings were published by the International Colour Association under a unique serial publication ISSN/eISSN and ISBN, as continuing resource.
- AIC Student Awards distinguishing six students.
- A new AIC Study Group on Arts and Design.
- Three participants were distinguished with Poster Awards.



Student Paper Winners



Lecture Hall



Tile Museum



Monserrate Tour



Gala Dinner



*"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 2018

## 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 meeting in Taipei, designer Hosanna Yau, from Hong Kong was announced the winner of the international competition for the ICD logo design. This special report describes some of the celebrations by AIC members around the world in 2018.



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

### AUSTRALIA Colour Society of Australia (CSA)

For ICD 2018 CSA NSW Division ran a one-day seminar, Colour Education - Past, Present and Future, at the International School of Colour and Design - ISCD in North Sydney, kindly made available by director Wendy Greenhalf. Eva Fay FDIA presented her exquisitely realized colour exercises done as a student at the Shillito Design School in Sydney in 1976-77 and traced many of Shillito's main teaching ideas to H. Barrett Carpenter's Colour (1915) and Maitland Graves' Art of Color and Design (1941). Dr David Briggs gave a repeat of his webinar, presented as the ISCC's ICD 2018 event this year, on the attributes of perceived colour and their importance to painters. Annamaria de Cara FDIA shared ideas on what is currently lacking in colour education in Interior Design and Architecture and what could be done to rectify this, in a talk beautifully illustrated with exercises by her students. Finally, Dr Jean Pretorius conducted a practical session in which students explored the Munsell colour framework and its application to matching colours with artists' paints.

In addition CSA President Judith Briggs organized a national photo competition on the theme Multicolourful Me and our Queensland Division celebrated ICD with a Colour Trivia event.



*Colour Education - Past, Present and Future Seminar participants*

### BELGIUM Interdisciplinary Colour Association Belgium (ICA)

The Interdisciplinary Colour Association Belgium was founded in 2016. ICA-Belgium provides a platform to encourage interdisciplinary colour research and disseminates knowledge and studies in order to contribute to the development and challenges in the field of science, art, design and industry in relation to colour. She does this by organizing seminars, lectures, courses, forums, study groups and other. ICA-Belgium seeks close cooperation with existing national and international organizations. At the AIC-Congress 2017 in South-Korea, ICA-Belgium became the 28th member of the AIC. In the young existence of ICA-Belgium the board has organized a Colour Café and two symposia in 2017 and 2018. The COLOUR DAY 2017 symposium was a great success. With around 90 attendees from a wide range of colour disciplines, we had a full house at Designcenter Winkelhaak in Antwerp. The COLOUR DAY 2018 symposium hosted by ENSAV La Cambre in Brussels on 21th of March, brought together more than 100 attendees from a wide range of colour disciplines. Renowned national and international speakers shared their latest research and expertise on colour within the beautiful surroundings of the former Cistercian Abbey of La Cambre. With growing membership, ICA-Belgium is facing many exciting events in the coming years.



**BRAZIL** Brazilian Colour Association (ProCor)

The Brazilian Colour Association, ProCor celebrated the 2018 International Colour Day with a half day event of a 100 places capacity, full auditorium, with the participation of colour related professionals, companies and students. The event had the sponsorship of: LECHLER DO BRASIL, LUKSCOLOR TINTAS, NCS, RAL|2AGOVONTI, RENNER SAYERLACK, SHERWIN WILLIAMS and SINTEGLAS ACRÍLICOS E COLAS ESPECIAIS. Mr. Narciso Moreira Preto, President of SITIVESP (São Paulo Owners of Paints Industries' Union), opened the event. Then, Mr. Freddy Carrillo, President of ABRAFATT's Directive Board (Brazilian Coatings Manufacturers Association), and also Executive President and General Manager at Sherwin-Williams Brazil, spoke to the audience. After him, Prof. Dr. Paula Csillag, President of ProCor talked about the significance of the International Colour Day and ProCor's mission of bringing synergy amongst industry and academics. The first lecture of the event was about Emotions and the use of Colour in Architecture and Interior Decoration. After this lecture, there was a panel with 6 academic communications. Then, a panel of the sponsors was presented. After the lectures a brunch was served, for fruitful networking!

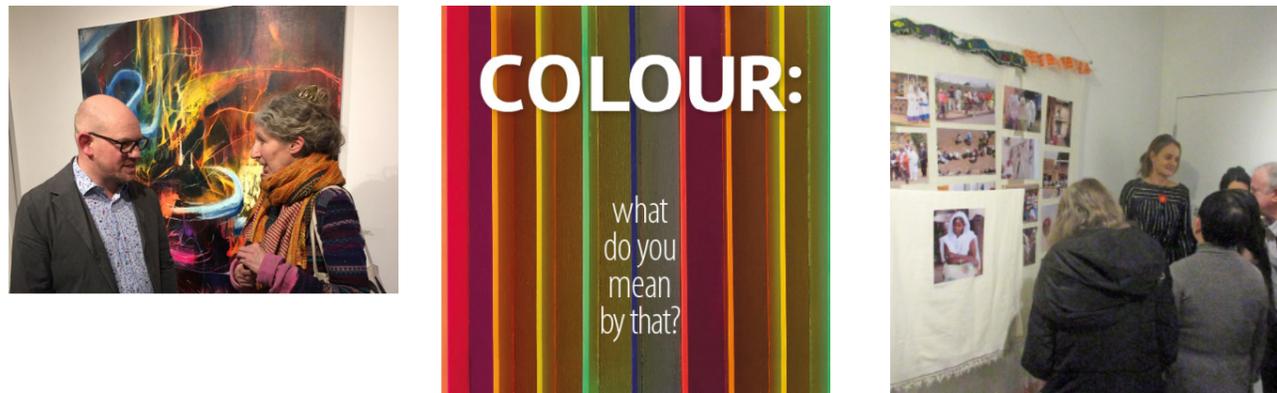


Mr. Freddy Carrillo, President of ABRAFATT's Directive Board (Brazilian Coatings Manufacturers Association), and also Executive President and General Manager at Sherwin-Williams Brazil, speaking to the audience

**CANADA** Colour Research Society of Canada (CRSC)

The Colour Research Society of Canada (CRSC) celebrated International Colour Day 2018 by co-sponsoring an exhibition with Propeller Gallery in Toronto, entitled Colour: What Do You Mean by that. The CRSC co-curators, Doreen Balabanoff, Robin Kingsburgh, Janet Read and Judith Tinkl, conceived of the cross-disciplinary exhibition, inviting artists, designers and scientists using or investigating colour phenomena, qualities, and meanings to consider: What is colour... frequency, wavelength, energy?... resonance, material, sensation?... perception, illusion, association?... emotive embodied experience? The question opened up diverse understandings and ways of knowing. The exhibition provided a rich variety of works, with conceptual, material, atmospheric and cultural exploration of colour meanings.

Exhibiting Artists: Laura Bisailon | Julia Buntaine | Chris Burke | Emily Carriere | Nicole Clouston | Jayanne English | David Griffin | Karine Guyon | Sara Hartland-Rowe | Mark-David Hosale, James Madsen & Rob Allison | Kathy Kranias | Marie Lannoo | Michelle Letarte | Art Lucs | Hameeda Mahmoud | Jessica Massard | Giuseppe Morano | Francis Muscat | Irma Osadsa | Frances Patella | Robert Quance | Jordan Shaw | Matthew Thomas | Dori Vanderheyden. Colour: What Do You Mean By That? Curators Talk and Social Event. Preceded by the CRSC AGM. (Propeller Gallery, Toronto). An Experiential Conversation about Colour - by Sharyn Adler Gitalis (CRSC Treasurer) with Pat Lawson. Lecture at the Illuminating Engineering Society, Toronto.



M. Hosale and S. Hartland Rowe w M. Thomas painting at CWDYMBT

**CROATIA** The Croatian Colour Society (CroCoS)

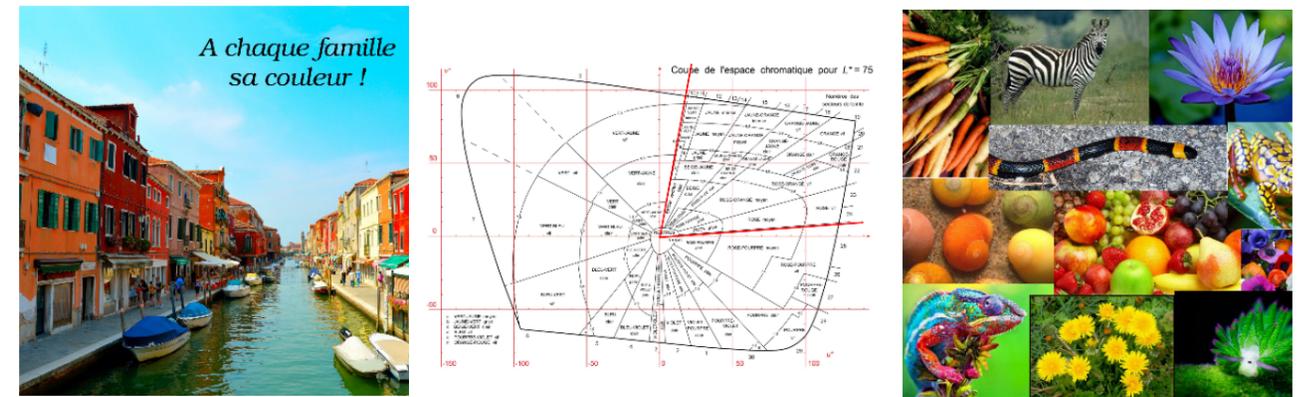
The Croatian Colour Society (CroCoS), at the March 21st 2018, organized the 5th Annual celebration of the International Colour Day (ICD) that was held at the Technical Museum Nikola Tesla in Zagreb, in cooperation with the Faculty of Textile Technology, Faculty of Graphic Arts and Faculty of Architecture from the University of Zagreb, under the auspices of the Croatian Academy of Technical Sciences, The University of Zagreb, the Mayor of Zagreb Mr. Milan Bandić, the Croatian Textile Engineers' Association (HIST), and the Croatian Association of Former Students and Friends of the Faculty of Textile and Technology (AMCA TTF). The letter of support came from the Ministry of Science and Education.

The International Colour Day in the Technical Museum Nikola Tesla was marked by a carefully designed program which emphasized interdisciplinary role of colour in everyday life as well as in science, art and design. As part of the one - day event, a professional - scientific symposium "Colour in Contemporaneity" was held as well as the exhibition and the interactive, educative workshop for children and adults. Parallel to the scientific and professional symposium "Color in Contemporaneity" there was an accompanying, interdisciplinary exhibition with interactive workshops and multimedia presentations. The idea was to show, on concrete examples, the width and the comprehensiveness of color as an intercept and band of not only the different scientific areas, but the science in general with the art and design.

**FRANCE** Centre Francais de la Couleur (CFC)

« From visual signals to language » gathered about 80 participants at Musée de l'Homme in Palais de Chaillot (Paris). 9 talks were given (in french) and have been video recorded. Organization and programme: Manuel Valentin (Musée de l'Homme) and Patrick Callet (CFC) Video stream segmentation and compression: Joël Randrianandrasana (CFC and University of Reims).

1. La production des couleurs dans le monde vivant/Color production in the living world (plants and animals), Laure Bonnaud-Ponticelli (MNHN) 2. Quelques réflexions sur l'harmonie et les couleurs en Chine, Philippe Denizet (CFC) 3. Donner leur nom aux couleurs/Naming the colors - Color names designation from the colorimetric values, Robert Sève (CFC) 4. Les artistes contemporains du Bénin et la couleur, Cléopée Moser (CFC) 5. Tout sauf rose !, Kévin Bideaux (CFC) 6. Parcours de couleurs et significations au musée nationale d'Arabie Saoudite, Virginia Cassola 7. Couleurs, fonctions symboliques et langage, Valérie Bonnardel (CFC and Colour Group of Great Britain) 8. Les maisons peintes de Burano (Italie). Du village de pêcheurs au site touristique, Michèle Ballinger (CNRS and CFC) 9. Symbolique et langage des couleurs dans le patrimoine architectural des grandes villes de Russie, exemple de Saint-Petersbourg, Larissa Noury (CFC).



Burano: Michèle Ballinger

Naming colors: Robert Sève

Colors in the living world: Laure Bonnaud-Ponticelli

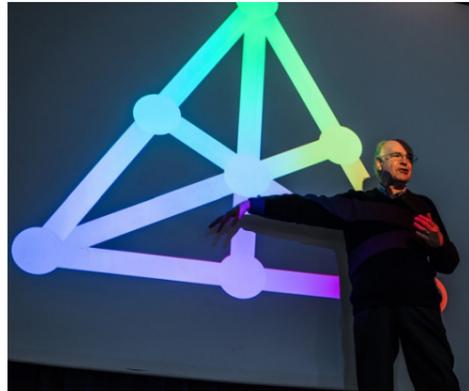
**GREAT BRITAIN** Colour Group (GB)

International Colour Day 2018 coincided with the last day of the Third International Conference Colour in Film - the largest event in the Colour Group (GB)'s calendar. This is a truly international collaborative project between the Colour Group (GB), HTW Berlin, the University of Zurich, British Film Institute and Birkbeck, University of London and attracts speakers and attendees from all five continents. As always the programme - and most importantly that for 21st March - covered subjects that concerned both the technical and aesthetic aspects of the preservation and restoration of films, making it a true day of celebration of the multifaceted nature of colour in film.

The second session of the day was the special focus of the International Colour Day celebration. It was entitled 'Science, Technology and Aesthetics' and was chaired by the Chairman of the Group, Elza Tantcheva-Burdge. Mike Pointer delivered the annual Colour Group (GB) Keynote Lecture. His presentation was centred on Uniform Colour Spaces, taking the attendees on a journey through the evolution and interpretation of colour spaces and the evolution of colour difference equations. Other speakers were the principal engineer of ARRI Cine Technik and a panel led by Sarah Street of the Eastmancolor Revolution project.



Mike Pointer explaining RGB Colour Space



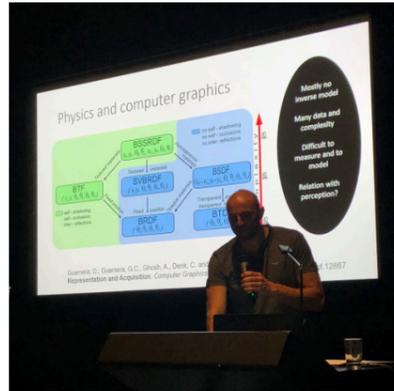
Mike Pointer elucidating dimensions of colour



Third International Conference Colour in Film

**NORWAY** Norwegian Colour Association (FORUM FARGE)

The "Surfing colour III" seminar was held in Bergen at University of Bergen/ Knut Knaus Auditorium on the International Colour Day in collaboration with the Faculty of Art, Music, and Design at the University in Bergen. Professor Mette L' orange (of Colour) was the main organizer. The seminar attended by approximately a hundred people included keynotes such as Copenhagen based designer Margrethe Odgaard, with a focus on colour and textile. Along with her own work she presented colour scales devised as a personal response to the lack of embodiment and materiality in conventional and commercial colour systems and palettes. Norwegian interior designer Thomas Gjetmundsen talked about the strategies applied to the bold colouring of thee exhibition walls of Lillehammer Art Museum echoing the items displayed by the Norwegian artisan and jewelry designer Liv Blaavarp. This was a solo exhibition in 2017. London based duo "Gilles and Cecilie Studio" presented their maximalistic and outgoing work covering a variety of fields, which concluded with the set design for Nissan TV commercial that was commission by Pulse Films.French PhD student at NTNU, Jean-Baptiste Thomas, presented issues concerning his work with colour and quantifying material appearance. With a background from nursing, Swedish researcher Helle Wijk talked about the importance of colour and light in the physical environment of a person-centered health care. In one of the afternoon talks, Norwegian artist and mural painter Bent Erik Myrvoll presented his own studies on lime work and mural-based art, and his collaboration with another Norwegian artist, Sverre Wyller, for the fresco in Løren sub-way station in Oslo.



**SWEDEN** Swedish Colour Centre Foundation

The Swedish Colour Centre Foundation celebrated the International Colour Day on March 21st with over 70 participants. "The Changing Colours of Chanel's Lipstick Ranges from 1960" was the title of the first lecture by our invited guest lecturer Hélène de Clermont-Gallerande, head of research at Chanel Parfums Beauté in Paris. She is a passionate colour lover who have developed no less than 15 make-up patents. She talked about Chanel's lipstick colours and how they have changed depending on fashion and trends until today and showed this with the help of analyses in the NCS system.

Our other invited Guest lecturer was the winner of the Prized Colour 2017. The theme was HE, IT, SHE AND COLOUR and the competition task was to create a colour design from a global, social and critical anti oppressive perspective. Isabel Tresse, HDK, Göteborg was awarded 1st prize for her proposal SOM OM (AS IF). The starting point for her project was the experiences and colour memories of her time in India, which are compared and transferred to another physical location in Sweden in Gothenburg – Kviberg. What happens in the meeting between my memories of Bengaluru India and the physical location of Kviberg, Sweden? What would Kviberg look like if it were, as if, in India?



Berit Bergstrom and Hélène de Clermont-Gallerande

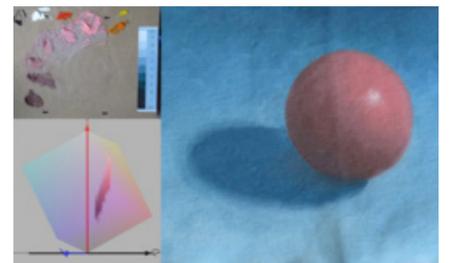
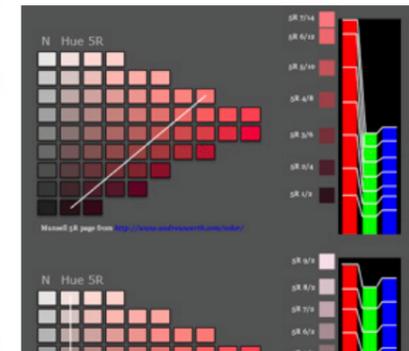
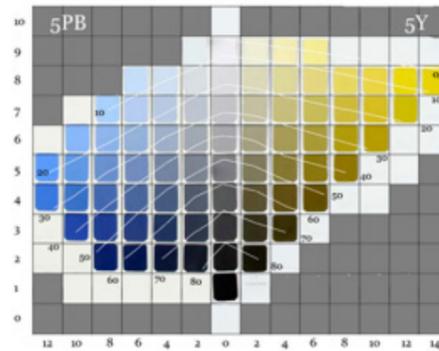


Isabelle Tresse presents

**USA** ISCC Inter-Society Color Council (ISCC)

The ISCC celebrated 2018 International Colour Day by hosting a webinar given by David Briggs. Dr. David Briggs is a painter and teacher at the Julian Ashton Art School and the National Art School in Sydney, Australia. He has been teaching classes on colour for painters for nearly twenty years, including a long-running intensive five-day workshop, Colour, Light and Vision, and an undergraduate lecture course on the history of artistic colour theory and practice, Theories of Colour. David is the Chairperson of the New South Wales Division of the Colour Society of Australia and has contributed to publications including a chapter on colour spaces in the forthcoming Routledge Handbook of Philosophy of Colour. Some of his efforts to present current scientific understanding of colour in ways that are accessible and useful to painters can be seen on his website The Dimensions of Colour: <http://www.huevaluechroma.com/>.

The title of David's webinar was The New Anatomy of Colour. David showed how building on Albert Munsell's crystallization of the framework of hue, value (or lightness) and chroma, the science of colour appearance has developed a lucid systematics of perceived colour that includes in addition the attributes of brightness, colourfulness, saturation and brilliance (along with its inverse, blackness). Unfortunately, these later developments remain poorly understood by non-specialists, and are hardly known among painters, who could benefit greatly from applying them as a framework for solving colour problems. This webinar used slides and animations from David's teaching materials to show how these seven attributes could be explained in ways that are intelligible to students, and how each attribute could be presented as a way of perceiving a particular property of lights or objects, instead of resorting to explanations invoking coloured wavelengths and receptors that "detect colours", which only serve to undermine understanding of the fundamental nature of colour.





## THE MUNSELL CENTENNIAL COLOR SYMPOSIUM

*Joint ISCC - AIC Special Event*

The Munsell Centennial Color Symposium held from June 10-15, 2018 was a cross-disciplinary event hosted by the Inter-Society Color Council and the International Color Association to honor the pioneering contributions of Albert H. Munsell to the world of color. This special ISCC-AIC Symposium celebrated the past 100 years of the Munsell Color Company's history since its foundation in Boston in February of 1918, just 4 months prior to Munsell's untimely passing on June 28, 1918. The venue was the Massachusetts College of Art and Design (MassArt) in Boston, Massachusetts. We walked in Munsell's footsteps because he attended and taught at this location for over 20 years when it was known as the Massachusetts Normal Art School.



MassArt Munsell Artifacts shown during Greg Wallace's Tutorial

With Munsell's history of reaching out to the artists, color scientists and educators of the time, it was appropriate to do the same for the Symposium. Thus, the theme "Bridging Science, Art and Industry" was chosen to represent the ISCC triangle and reinforce the goal of creating a color conference for color professionals across disciplines.

In order to honor Munsell's legacy of inter-disciplinary collaboration, the Symposium brought together over 200 participants (color scientists, artists, industrialists and educators) from 27 different countries for five days of talks, seminars and workshops by invited presenters. Three of the five days featured science, art and industry general sessions with speakers discussing the journey of color development from the historic past started and influenced by Munsell, through the present day and looking forward to what the future might bring.

Each general session day began with a historical section outlining Munsell's contributions from the late 1880's until his death. That led into an Evolution section that featured the milestones and significant color events that developed from Munsell's death up until the 21st century. Then there was a State-of-the-Art section that described where color concepts are in 2018. Finally, each general session day ended with some talks on what the Future might hold for color in science, art, industry and education in the years beyond 2018. Two of the five



Susan Farnand from Rochester Institute of Technology presenting Poster Paper

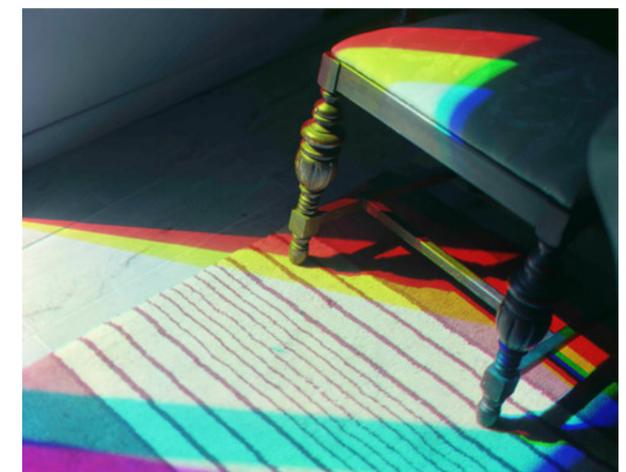
days featured interdisciplinary sessions for artists, scientists, industrialists and educators to mingle at 3-hour workshops, 90-minute tutorials, or half-day field trips (e.g. Harvard Instrument Collection and Forbes Pigment Collection and an MIT exhibit of The Beautiful Brain: Drawings of Ramón Santiago y Cajal). There were three Contributed Poster Paper Sessions, one on each of the General Session days. Many of these contributed posters were featured in the Munsell Centennial Special Issue of Color Research and Application dedicated to papers from this conference. There also was a display of the 27 pieces of artwork that were jury-selected to be in the Munsell Centennial Special Issue of Color Research and Application. Awards were given for three of the best student artwork entries.



Paul Green-Armytage giving a presentation during the General Session Day on Art



Setsuko Horiguchi teaching at Color Image Scale Workshop



RGB Chair by Evan Murphy - Top Student Artwork Award

Harvard Forbes Pigment Collection – Mineral pigments made from smashed artificially colored glass



Since the 2018 Munsell Centennial Color Symposium was a one-time special event to commemorate the legacy of Albert H. Munsell, it was fitting to present one-time only Munsell Centennial Awards to honor three icons who have influenced the growth of the Inter-Society Color Council and have helped shape the organization in the areas of Science, Art, Industry. The recipients of the 2018 Munsell Centennial Awards were Rolf Kuehni for Science, Joy Turner Luke for Art and the late Calvin McCamy for Industry.



Paula J. Alessi presenting Joy Turner Luke with the 2018 Munsell Centennial Award for Art



Participants of the 2018 Munsell Centennial Color Symposium

ISCC wishes to thank AIC for their support of this very successful worldwide inter-disciplinary one-time 2018 Munsell Centennial Color Symposium! In addition to the pictures shown here, more can be found on the ISCC website at [www.iscc.org/Munsell2018](http://www.iscc.org/Munsell2018).

## FUTURE CONFERENCES

### 2019 AIC Midterm Meeting “Color and Landscape”

October 14-17, 2019 - Buenos Aires, ARGENTINA

Chair(s): José Luis Caivano (scientific committee), María Paula Giglio (organizing committee)  
Website: <https://www.aic2019.org/>

Organized by Grupo Argentino del Color



### 2020 AIC Interim Meeting “Couleurs naturelles—Couleurs numériques”

October 6-9, 2020 - Avignon, FRANCE

Venue: Popes' Palace in Avignon (Vaucluse) France  
Chair(s): Patrick Callet, Honorary presidency: Dominique Cardon, Livio de Luca  
Website: <https://www.aic2020.org/>

Organized by Centre Français de la Couleur



### 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





// ARGENTINA //

## GRUPO ARGENTINO DEL COLOR

ACG - Argentine Color Group

In September 2018, we celebrate the 38th anniversary of Grupo Argentino del Color (GAC), and as is characteristic of our association, we have organized and supported various scientific exchange and academic training events:

### 13th ARGENTINE COLOR CONGRESS - ARGENCOLOR 2018

September 17-20, Santa Fe - The Argentine Congress of Color, called ARGENCOLOR, is the main national event of the GAC that is held every two years in different cities of Argentina, being its headquarters, mainly national public universities. On this occasion, the 13th Argentine Congress of Color, Argencolor 2018, was held at the Faculty of

Architecture, Design and Urbanism of the National University of the Litoral (FADU - UNL). It was organized by FADU - UNL, whose Dean is the Esp. Arq. Sergio Cosentino, through the Center of Morphological Studies (CEM), whose Director is the Esp. Arq. Carlos Prause, of the Secretariat of Research and International Relations, in charge of the Arq. Mónica Osella, and of the Secretariat of Extension and Linkage with the Environment, in charge of the LDCV Cristian Eduardo Vázquez, together with the Argentine Group of Color (GAC), chaired by Lic. Prof. María Paula Giglio.

The conferences were given by José Luis Caivano, María Paula Giglio, Claudio Guerri and Carlos Prause.



Lecturer invited, organizers, speakers, student speakers with their teachers tutors and participants.

### OBITUARY

We want to pay tribute to our dear companions who died in 2018: María Eugenia Bravo, Secretary of the GAC, Bachelor of Arts and plastic artist; and Roberto Daniel Lozano, Honorary Member and President of the GAC (1980-1992), member of the Steering Committee of the AIC (1986-1990), and "Deane B. Judd" Prize, during the 9th Session of the AIC held in Rochester, NY, USA.



Roberto Daniel Lozano and María Eugenia Bravo in the GAC office.

### MEETING WITH COLOR # 1.

Theory, practice and technique June 8-9, Córdoba

As a contribution to the great work being done by the members of the Color Institute of the Faculty of Architecture, Urbanism and Design of the National University of Córdoba, the GAC supported this event, organized by the Color Institute and the Chair of Morphology 3 of the FAUD - UNC, and the Faculty of Agricultural Sciences of the UNC.

This event featured expert lectures and workshops. Among the conferences, those of María Paula Giglio (president of the GAC) and Anahí López (vice president of the GAC) were presented. In turn, Giglio held two academic training workshops for teachers and students.



Above left: Mariconde, Giglio, Jofre, Girelli and López. Above right: Anahí López in conference. Below: photos of the two Giglio workshops

### EMINAR "COLOR IN SCIENCE.

Materials, Architecture, Heritage and Urban Landscape" October 4, La Plata

As an inter-institutional articulation, the GAC supported this seminar, organized by the LEMIT - CICPBA, and coordinated by the vice president of the GAC, Anahí López. At the same time, it had the support of the National Technological University, Concordia Regional School (GIICMA Group), CEPRARA, CIDEPINT and LEMAC Road Research Center. Omar Burgos, Alicia Gaisch, María Paula Giglio and Anahí López, are the members of the GAC who were invited to present lectures.



Speakers, participants and representatives of the LEMIT



// AUSTRALIA //

## Colour Society of Australia CSA

### CELEBRATING 30TH ANNIVERSARY

Following our 30th anniversary celebrations in 2017, our State Divisions hosted a number of colourful events for members and friends spreading the knowledge of colour.

David Briggs [NSW Division Chair] was invited by the Inter-Society Color Council to present a live webinar for their ICD on his approach to teaching colour.

Over a busy year meetings included presentations by botanical watercolour artist Angela Lobe; long time NSW member and supporter Babette Hayes – a household name in the world of design and

interiors – was inducted into the Design Institute of Australia Hall of Fame, at another well attended event.

Annamarie di Cara – a Past CSA President, gave a fascinating talk on 'Azulejo Tiles of Portugal' with wonderful images. Topics of other meetings held in Sydney were 'Rethinking White Light' by Dr Wendy Davis, Associate Professor of Lighting & Illumination Design in the School of Architecture, Design &

Planning at the University of Sydney; 'Synaesthesia and Object-Colour Knowledge' presented by researcher Lina Teichmann; 'Colour & Vision at ORLAB' – the team from UNSW Optics and Radiometry Lab spoke in August outlining the activities in both product testing and colour vision testing.

Several CSA members from across Australia represented CSA at the ISCC/AIC Munsell Centennial Color Symposium in Boston, and David Briggs [NSW Chairperson] and Paul Green-Armytage [WA, CSA Founding Member, and Past-President] presented tutorials and lectures. Annamarie di Cara presented a paper at the AIC2018 Lisbon meeting, and Zena O'Connor presented two papers.

### CSA WESTERN AUSTRALIA

CSA Western Australia involved their members and friends in the Canning River Eco Colours Walk – the aims were to study natural colour palettes, using digital technology exploring and comparing how perceptions of ecological colours contrast with digital palettes from photographs and paint swatches. Visits to artists' studios enabled members to discuss distinctive painting styles, paint mixing techniques in landscape painting. A meeting following the Munsell Symposium in Boston enabled attendees Paul Green-Armytage and Barry Maund to reflect on presentations, theories and experiences.

A mini symposium held in November 'Eco Colours' – reported and discussed colour matching challenges in multimodal colour activities, and participants created 'sense of space' displays from a 25 colour palette. This event also included a panel discussion on 'The Reality of Colour: Do things have real colours?' Lively discussions took place.

### CSA QUEENSLAND

CSA Queensland hosted meetings that included 'Global Fashion Colour Palettes'; a successful Colour Trivia Evening; art gallery openings and a sketching walk with a local artist.

### CSA SOUTHERN

CSA Southern Division includes Tasmania, South Australia and Victoria. Much of the year was spent planning the National conference held in Melbourne in early September. With a title of 'Perception & Colour – Evolution, Analysis, Imagination' the presentations were varied and highly informative. Keynote Speakers were: David Coles – 'Master paint-maker, artist, lecturer and author, and historian of pigment manufacture through the ages who spoke on his work. His newly published book 'Chromatopia' [Thames & Hudson] already into a second printing after only a few weeks was our gift to each of our speakers and presenters. Kate Cullity – landscape architect and environmental artists spoke on how landscapes tell stories; and Wendy Clark – Colour Perception & Lighting: Analysing the Spectral Power Distribution'. Presentations included 'The World's Favourite Colour'; The Benefits of Colour Trend Forecasting; Colour in Food; has Engineering overcome the visual problems faced



Royal Botanical Gardens Visit – Melbourne Conference September 2018. Colourful local flora

by those with vision deficiencies; Naming of Colours; Colour Perception on Computer Screens; Environmental visual literacy; Stained and painted Glass; Colour Matching -Compensating for loss in textile conservation, and others.

### SITE VISITS

Site visits held at this time for delegates included the National Gallery of Victoria to view the famed Leonard French glass ceiling, and to see how colour was used in different arts; the Australian Tapestry Workshop to view large works in progress and regard their extensive colour range; the Melbourne Botanical Gardens which included tasks of matching colour samples to tree bark, foliage etc. We were also shown a knitted panel made up of wool and yarns dyed from plants from within the gardens.

### CSA 2020 CONFERENCE

Hosted every two years by one of our divisions, the next CSA conference will be in Sydney in 2020. Successful liaisons and projects with educators in different states encourage a strong interest in the use of colour, particularly with interior design students, many of whom have become members.

In late 2018 we welcomed a new National President – Jean Pretorius – NSW, a new Vice President David Briggs [NSW], and a national executive determined to have a thriving Colour Society of Australia for another 30 years.

Currently working on updating our website, CSA continues to utilise social media as a means of sharing our knowledge and ideas.



CSA – Special guided tour – National Gallery of Victoria, Leonard French – massive stained glass ceiling



CSA – tour of Australian tapestry workshop, Melbourne. Large tapestries in work



// BELGIUM //

## Interdisciplinary Colour Association Belgium ICA

### EVENTS OF 2018

The year 2018 saw ICA-Belgium grow in membership and activities. As a young organisation, established only in 2016, we are thrilled to see a very positive response to our growing colour platform. The thanks go to our members for their enthusiasm, initiative, cooperation and countless hours of work.

SYMPOSIUM 2018, Brussels, March 21, 2018

The biggest event of the year was the 2nd Colour Day Symposium, an interdisciplinary 1-day event, hosted by Ecole Nationale Supérieure des Arts Visuels La Cambre (ENSAV La Cambre) in Brussels, a renowned architecture and visual arts school founded by Henry van de Velde in 1926.

109 participants from a wide range of disciplines gathered within the beautiful grounds of the former Cistercian Abbey of La Cambre. We were particularly happy to, among them, welcome many students as well. Collaboration, education and research are at the core of ICA-Belgium and we strongly believe in importance of opening the world of colour to the next generation.



### ORAL PRESENTATIONS

- Biomimetic optical nanostructures - Matthew Shawkey
- Design Semantic Pathways, Colours connecting meaning, emotion and psychology to visual language - Inez Michiels
- SlowCity, FastCity, SmartCity: Colours in the built environment - Verena M. Schindler
- Color as Modernity: Chromatic Ambitions in Art Deco New York - Jada Schumacher
- Colourful World vs. Colourless Design: how to restore colour and material in the education of architects and designers - Ralf Weber
- The Color Biolab: a transdisciplinary research on color - María Boto-Ordóñez
- Microkosmos: Strange white light properties - Adrien Lucca

### PORSTER PRESENTATIONS

- Studying emotions and colours in art using Armand Henrion's self-portrait paintings - Lucia Camenzind
- Challenges in empirical testing of affective associations with colour - Domicile Jonauskaite
- Chromatic tour: a Colour Guide - Vinciane Lacroix
- Semantic Colour Space - Inez Michiels

### MUNSELL STUDY DAY

Antwerp, November 17, 2018

In celebration of the Munsell Centennial, ICA Belgium organised a Munsell Study Day in Antwerp. Program consisted of presenting the early editions of Munsell Book of Color (1929) and A Grammar of Color (1921), followed by a workshop on Munsell colour system and a report about the Munsell Centennial Symposium, held in June 2018 in Boston.

Report by Inez Michiels about the AIC Symposium, held in Lisbon in September 2018, closed the event. Workshop and presentations were lead by Jeannette Hanenburg and Felix A. D'Haeseleer.

It was a rare opportunity to see The Munsell Book of Color from 1929 with its 935 colour samples, especially as no public library in Belgium has it in its possession.

### UPCOMING EVENTS IN 2019

ICA-Belgium COLOUR SYMPOSIUM 2019, Ghent, May 23-25, 2019

ICA-Belgium's 3rd Symposium welcomes Belgian and international speakers from various disciplines in a 3-day event encompassing 2 days of presentations, interactive, hands on colour exploration, film screening, tours of the Light Laboratory and its latest research, and a full day workshop on colour education. The event is hosted and sponsored by KU Leuven Ghent Technology Campus and Light & Lighting Laboratory, with the support of Cinematek (Royal Belgian Film Archive), KASK Cinema and KASK School of Arts Colour Biolab. <https://coloursymposium.org>

### FIELD TRIP

Stoopen & MeeÛs - Natural Pigments and Well-being, Ghent, October 2019. For more than 120 years, Belgian company Stoopen & MeeÛs has been producing high-quality pigments, dyes and mineral finishes for walls and floors near Antwerp, from local ingredients. Historically, Stoopen & MeeÛs is renowned for its rich, deep greens and blue colours.

In October they will welcome us at their Center of Excellence in Ghent and let us experience their eco-sensitive products.



It was a rare opportunity to see The Munsell Book of Color from 1929



ICA-Belgium Interdisciplinary Colour Day 2018\_1.jpeg



// BRAZIL //

## Associação ProCor do Brasil

PROCOR - Colour Association of Brazil

The Brazilian Colour Association, ProCor, continues to grow, aggregating professionals and companies related to colour. Here we present some of ProCor's events and we gave voice to our members to show some of their activities. The celebration of the International Colour Day, is one of ProCor's major events, and it is featured in the ICD page of this AIC Annual Review.

ProCor celebrated the Brazilian Colour Day at FEITINTAS 2018, the Paints, Varnishes and Related Products Industry Fair, promoted by SITIVESP. The event took place between September 12 and 15, 2018 and brought together companies and industry professionals. ProCor was invited to participate in the opening, which brought together distinguished members. ProCor offered a lecture at the First International Forum of Paints and Varnishes, named, Colour Trends for Household Paints Industry. ProCor President Paula Csillag started the lecture, talking about ProCor, its associates and the Brazilian Colour Day. Following, Paula talked about the concept and history of colour trends. Next, ProCor Vice President, Patricia Fecci, spoke about colour trends in 2019, prepared by the Color Marketing Group, a North American association that produces, through its periodic workshops, regional colour trend palettes. ProCor's lecture was a success at the event, with a full auditorium!

Following, what some members presented, as their colour related activities for 2018: ABRAFATI turned 33 years old renewed and boasting new strategic planning and a redesigned chromatic trademark. Using small circles taken from ABRAFATI's old logo, a new, hexagonal shape emerges representing pigment molecules—pigments being a key ingredient in all paints and coatings. And the pigment, more precisely that obtained from the brazilwood tree, represented by the formula for brazilin, was the source of inspiration for being an important element of the culture and origins of Brazil. The central circle represents ABRAFATI and its new mission of boosting growth and sustainable development in the coatings supply chain. The other circles represent the industry players, such as its member companies, paint manufacturers and their suppliers, as well as retailers and product users, specifiers, applicators and consumers. Taken as a whole, the logo symbolizes the union of all members of the coatings supply chain in a movement of constant growth with ABRAFATI at the center.

In 2018, Colormix, a specialties distributor that sells special effect pigments, inorganic and organic pigments, polymeric and rheology additives and special chemical solutions, worked with global companies that are specialists in their segments as BYK, the biggest additive supplier in the word, Eckart that has the most complete portfolio for aluminum and effects, Ferro, the most important inorganic pigment producer globally and supply several other companies as Hoffmann special mineral fillers supplier, Sino Lion, one of the biggest amino acid products producer, Neelikon, a pigment supplier only for cosmetics, Ruicheng that produces pearlescent pigments and Chinese's and



Greetings at the end of the talk, by Mr. Narciso Moreira Preto (left), President of SITIVESP, and Mr. Paulo Cesar de Aguiar (right), Executive President of SITIVESP.

Indian specialties suppliers. Also, they did different pigments dispersions from the same searches using different additives and using our application laboratories to support our customers.

Our member RENNER SAYERLACK, a specialist in paints and varnishes for furniture and wood designs, in 2018, worked with the development of new colors in addition to the more than 4 thousand colors present in the system called Sayerystem. "Colors reflect authenticity and are important for differentiating and customizing furniture and wood designs", they affirm.

Josivan Benegate, held a class for the last semester of the Interior Design Technology course on the Special Interior Design Topics, consisting in the construction of the Johannes Itten color wheel, as a tool to understand the subtractive mixtures and, accordingly, their interaction. The main purpose of this activity was to experience the construction of practical and theoretic guidelines for future applications in the activities to be developed by students that entail chromatic palettes for interior design projects.



Ana Rezende's workshop.

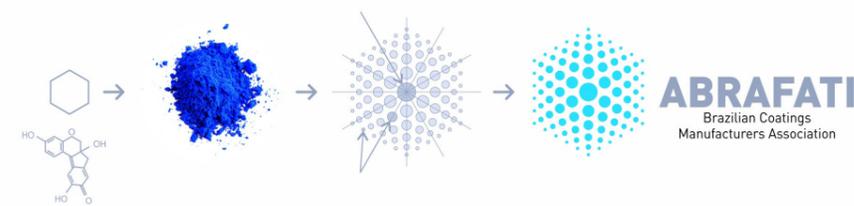
ProCor participated in the 2018 AIC Conference in Lisbon, with the presence of our member, Ana Rezende. On September 21st, 2018, she also honored the Brazilian Colour Day, offering two free workshop sessions that explored the Subjectivity of color, Texture and Creativity.

ProCor member, Edna Prado, in 2018, featured a YouTube channel, [www.youtube.com/ednaprado](http://www.youtube.com/ednaprado) where she uses color theory to dye white water-based ink into any desired color.

All of ProCor events and more information can be seen at <http://www.procor.org.br/category/noticias/>.



ProCor Vice President Patricia Fecci, talking about colour trends for 2019 from the Color Marketing Group.



Images of ABRAFATI's 2018 chromatic branding process.



// CANADA //

## Colour Research Society of Canada CRSC

### REVIEW

In 2018 the CRSC continued to build our organisation with the active participation of Executive Committee Members Doreen Balabanoff, President; Vivian Lo, Vice President; Sharyn Adler Gitalis, Treasurer; Judith Tinkl, Secretary; and Members at Large Candida Girling, Brian Funt, Robin Kingsburgh, and Joy Lim, (Communications). As Joy stepped away from the Board, Vicky Chung was appointed by the Board in October, taking on the Communications role.

In March, The Colour Research Society of Canada (CRSC) celebrated International Colour Day 2018 with a cluster of events:

- March 7th-25th: CRSC co-sponsored an exhibition with Propeller Gallery in Toronto, entitled *Colour: What Do You Mean by That?*. In the open invitation the curators wrote: “*Colour: What Do You Mean by That?* calls for art inspired by, or questioning, scientific concepts about colour: art that encapsulates colour knowledge from multiple perspectives. We are not looking for the merely colourful – rather we look for work engaging ideas, theories

and aspects of colour – both conceptual and physical – that highlight colour knowledge as richly meaningful across diverse ways of knowing.”

Curators Doreen Balabanoff, Robin Kingsburgh, Janet Read and Judith Tinkl asked artists designers and scientists using or investigating colour phenomena, qualities, and meanings to consider: What is colour... frequency, wavelength, energy?... resonance, material, sensation?... perception, illusion, association?... emotive embodied experience? The questions opened up diverse understandings and ways of knowing. The exhibition provided a rich variety of works, with conceptual, material, atmospheric and cultural exploration of colour meanings.

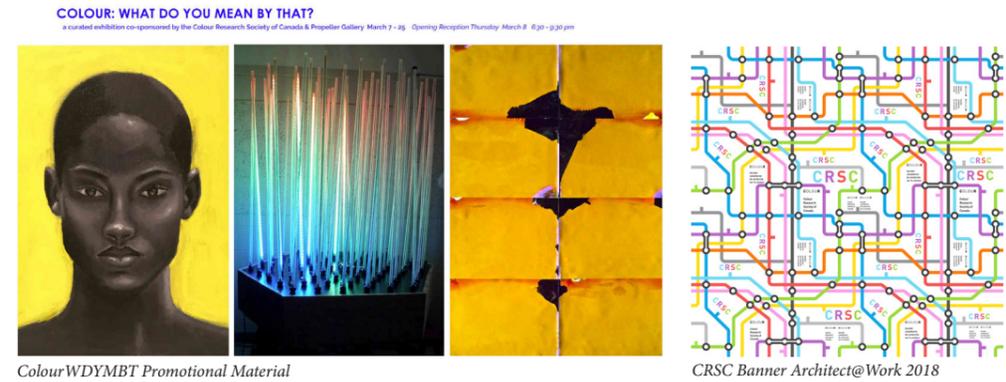
- March 18th: The CRSC initiated a new ‘Kaleidoscope Series’ – an interdisciplinary colour conversation approach. The panel featured Mark-David Hosale, Rob Allison (York University, Toronto) and James Madsen (University of Wisconsin-River Falls) – artist, scientist and engineer – discussing their ICECUBE LED Display [ILDm^3] – a

### COLOUR: WHAT DO YOU MEAN BY THAT? an exhibition sponsored by Propeller Gallery and the Colour Research Society of Canada



Judith Tinkl, *Bending Red* (detail) | Janet Read, *When That Storm Comes* (detail) | NASA, ESA, and the Hubble Heritage STScI/AURA – ESA/Hubble Collaboration Acknowledgment: J. Heister (Arizona State University) | Doreen Balabanoff, *Colour Chord Installation* (detail) | Robin Kingsburgh, *Harmonia II* (detail)

Colour Exhibition Call



ColourWDYMBT Promotional Material

CRSC Banner Architect@Work 2018

1:1000 scale model of the IceCube Neutrino Observatory, a cubic-kilometer telescope made of ice just below the surface at the South Pole.

Two events occurred on March 21st to formally highlight International Colour Day, and related events followed closely:

- *Colour: What Do You Mean by That?* Curators Talk and Social Event. Preceded by the CRSC AGM, at Propeller Gallery, Toronto.
- An Experiential Conversation about Colour - by Sharyn Adler Gitalis (CRSC Treasurer) with Pat Lawson. Lecture at the Illuminating Engineering Society, Toronto.

Other events included:

- Art of Time Ensemble Concert: Sound and Colour (March 22nd & 23rd). The concert (Harbourfront, Toronto) was paired with a lecture by renowned neurologist and synaesthesia expert Dr. Richard Cytowic (author of *The Man Who Tasted Shapes*). CRSC members were given special ticket rates.
- March 25th. We concluded our events surrounding International Colour Day – with an Artists’ Talk on closing day of *Colour: What Do You Mean by That?*
- Additional related programming: Primary Colour Dye Workshops with textile artist Tanya Love: Blue: Natural Indigo | March 10th, 10-5pm, Red: Plant Sources | April 14th, 10-1pm, Yellow: Plant Sources | May 26th, 10-1pm

President Vivian Lo coordinated two seminars about colour.

In September Board Members Brian Funt and Sharyn Adler Gitalis participated in the AIC Portugal Colour and Human Comfort conference, giving oral presentations.

On September 29th CRSC member Gwen Tooth organized a partnership with Propeller Gallery, Toronto to host *COLOUR AND ACRYLIC PAINTING: A LIQUITEX WORKSHOP*, featuring artist/illustrator Linda Montgomery, a respected Canadian artist, illustrator, and educator with international reputation. 25 people attended.

In November Board Member Brian Funt presented his research at the CIC conference in Vancouver.

In the interest of building colour knowledge and understanding, the CRSC continues to grow and to develop new programming aimed at creating an interconnectivity between academic researchers, industrial and commercial colour developers, and diverse professional practitioners who use colour in many practical ways. We welcome new Canadian members each month!



S. Hartland-Rowe at CWDYMBT

In April the CRSC participated in the Architects at Work show in Toronto, sharing a booth with *The Right Angle*, an architectural magazine; Vice

// FINLAND //

## Suomen väriyhdistys

FCA - Colour Association of Brazil

### REVIEW

The Finnish Colour Association celebrated the International Colour Day on the 21st of March by awarding the Association's Iris Prize to Leif Wikgren, Sales Manager at Oy Mitaten Finland Ab, for his long career in the measurement of colour and light. During his long career Leif has disseminated knowledge about colorimetry, photometry and measurement of surface quality to countless clients, students and professionals in Finland and the Nordic countries. Leif Wikgren's expertise has been called upon in many ways. He is a founding member of Suomen väriyhdistys and was instrumental in creating a modern colorimetric definition for the colours of the Finnish national flag. In recent years Leif Wikgren has devoted himself to spreading information about the interaction of colour and illumination.



Leif Wikgren receiving the Finnish Colour Association's Iris Prize 2018.

In June President Saara Pyykkö and Vice-President Harald Arnkil participated with a joint poster presentation in the Munsell 2018 Centennial Symposium in Boston, MA. Harald Arnkil also participated in the panel discussion on colour education. The Finnish Colour Association was also well represented in the Interim meeting AIC Lisboa 2018 - Colour and Wellbeing, held in Lisbon, Portugal in September. Present were Ms Saara Pyykkö, Mr Harald Arnkil, Ms Kati Winterhalter, Ms Nina Laaksonen and Ms Kaisli Oksa. Saara and Harald presented oral papers, Nina's and Kaisli's contributions were posters. Saara Pyykkö's paper The main elements of the colour design process of a new neighbourhood - The case Koivusaari in Helsinki won first prize in the AIC's Student Paper Awards series.

It is already an established tradition of the FCA to stage a colourful event on or near Iris's name's day, 7th November. This year the Association joined forces with the Aalto University's Experience Platform and the Aalto Colour Research Group to organize a public seminar under the title Experience Colours! The event attracted an audience of 250 people to the Espoo City Theatre, the venue of this afternoon-long event. The topics of the presentations included the role of memory in colour constancy, the planning of colours in new residential areas, new nanomaterials for producing structural colours, the effects of light and colour on health, The NCS as an aid in colour education and research, fashion and colours in Early Modern Europe, colour trends of Chanel lipsticks and the history of the Coca-Cola red brand colour. Keynote speaker Dr. Richard Misek from University of Kent gave a talk, with film excerpts, about colour in cinema from very early days of the art form to

the present. The afternoon was rounded off by a get-together with refreshments in the theatre foyer, where the audience also enjoyed an exhibition of colourful dresses by Aalto University's fashion and theatre costume design students. What a great event to brighten up the darkest time of the year!



Experience Colours!, a joint effort of the Aalto University's Experience Platform, The Finnish Colour Association and the Aalto Colour Research Group, was held in November. Photo: Verner Salonen.



Lively conversation during the intermission of Experience Colours! Photo: Verner Salonen.



// CHILE //

## Asociación Chilena del Color CCA - Chilean Color Association

### CHI COURSE ON DYEING WITH NATIVE PLANTS

In February 2018, Valdivian dyer Marianne Meier – trained in the natural dyeing school "The dye's house" (Spain)– offered rural women living in Vilupulli, Chiloe Island, south of Chile, a training course on the use of native plants to dye fabrics. The course was funded by the "Indigenous Chile" government program. The women managed to acquire a palette of 16 new colors made with leaves from tress like the canelo (*Drymis winteri*), radial (*Lomatia irsutata*), maqui (*Aristotelia chilensis*) and pillo pillo (*Ovidia pilli pillo*). Dyed wools are used to make mantas and blankets, which are woven with a kelwo (a Mapuche loom).

### AQUARELLE AND COLOR IN SOUTHERN CHILE

Professors Daniela Caro and Elisa Cordero used the aquarelle technique as an observation tool of landscape and color in the Design Program of Universidad Austral de Chile, Valdivia. The technique was selected considering the students' need to capture their immediate environment in a territory identified by humidity, rain and an ever changing atmosphere. The analogy flows naturally: In an environment marked by water, river ways and rainfall, using a technique based on moisture and aqueous movement is ideal for the exploration of landscapes and their colors.

### UNIVERSE IN SIX COLRS, ATLAS OF NATURAL DYES

In 2015, designer Paulina Olivares began a research that involves mapping natural dyes present in indigenous Mapuche textiles. The project covered the central-southern regions of Chile, where 49 field studies were carried out, and more than 200 wool weavers were registered. The main objective of this project is to develop a color cadaster through natural dyes made following ancient traditions and with ingredients collected from the area's native forests. In 2018, Paulina began to classify these tones and nuances through an NCS color scan, achieving a system that could describe and/or transfer the dyes' colors to a universal language.

### STUDY ABOUT THE COLOR OF COOKIE LABELS BETWEEN 1892-1945

Designers Bernardita Bráncoli and Paulina Contreras guided the research called "Study of Art and Color in Cookie, Candy and Chocolate Packaging and Labels in the Chilean Industry between 1892 and 1945" by student Pía Álvarez, from Universidad del Desarrollo. The study aims at contributing to the dissemination of the country's graphic and industrial heritage by means of discussing the visual communication of the packaging and labels mentioned. The research found that color, ornaments and typography were the most representative resources of the labels and packaging under study, which additionally connect with the existing technologies and inspirations of the time.



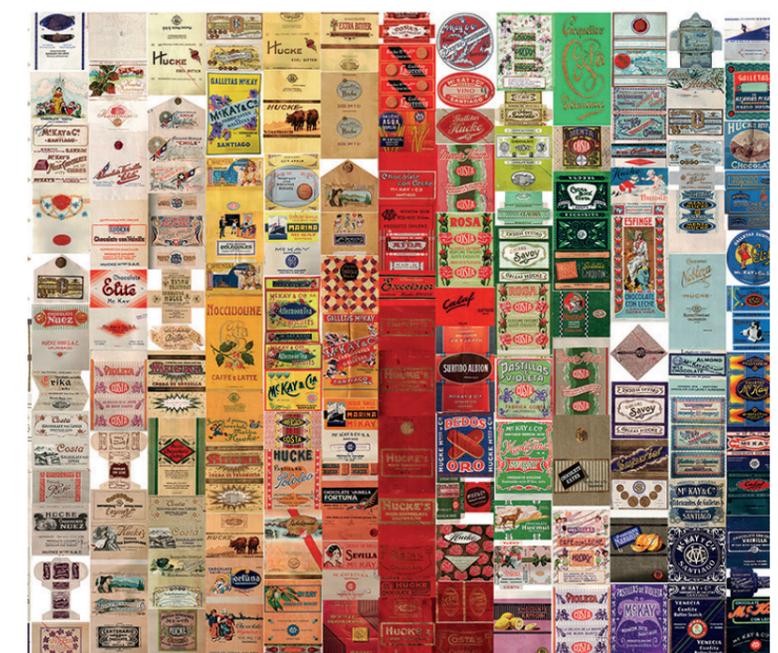
Course on Dyeing with Native Plants



Aquarelle and Color



Universe in Six Colors



Study about the Color of Cookie Labels



// 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 CAC 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, through seminars to exchange information and new technology about color.

### ACTIVITIES IN 2018

On 27-29 August 2018 the seminar of "Color Science and Image Engineering 2018" was held successfully in



Some speakers at the seminar of "Color Science and Image Engineering 2018" held by Color Association of China on 27-29 August 2018 in Kunming Yunnan

Yunnan Normal University, Kunming, Yunnan. This seminar was hosted by the Color Association of China, together with the Technical Committees of Vision & Color and Image Technology of the China Illuminating Engineering Society, and was undertaken by the College of Physics and Electronic Information of Yunnan Normal University and the Yunnan Key Laboratory of Optoelectronic Information Technology. The technical reports were presented by the experts coming from academia and industry including: Zhejiang University, Beijing Institute of Technology, Yunnan Normal University, Institute of Psychology of the Chinese Academy of Sciences, China National Institute of Metrology, Donghua University, Guangzhou University, Xi'an University of Technology, Hangzhou Dianzi University, Beijing University of Technology, Fuzhou Rockchips Electronics Co., Ltd, and Beijing Sino-MV Technologies Co., Ltd. The speeches, including the keynote reports of "Color quality evaluation of light sources: past, present and future" addressed by Prof. Haisong Xu and "Research progress of CIE Division 8 Image Technology" by Prof. Qingmei Huang, fully reflect the academic nature and applicability of color science and image engineering. At the seminar, the participants thoroughly exchanged the academic trends, industrial status and latest achievements in the relevant research and technical fields such as vision and color, and image engineering. Several professional issues, industrial applications, and development prospects were also discussed for the cross-field, interdisciplinary, and multidirectional study of color and image.

The Color Association of China gathered our members to attend the 4th International Conference of the Asia Color Association (ACA2018), held on 5-8 December 2018 in Chiang Mai, Thailand, with the theme of "Inspiration in Color". The Chinese participants gave the presentations respectively in the invited, oral and poster



The 2018 examination meeting of the National Standard "Evaluation method for color rendering of light sources" on 30 March 2018 in Beijing

sessions, involving the topics of color imaging, color design, color vision, color technology, color application, color in health and cosmetics, and so on. The ACA2018 conference set up an international platform for the academic communications and collaborations of color science and technology among the Asian professionals, especially among the young color scientists in Asia, to share their experiences and achievements as well as to promote their future development.

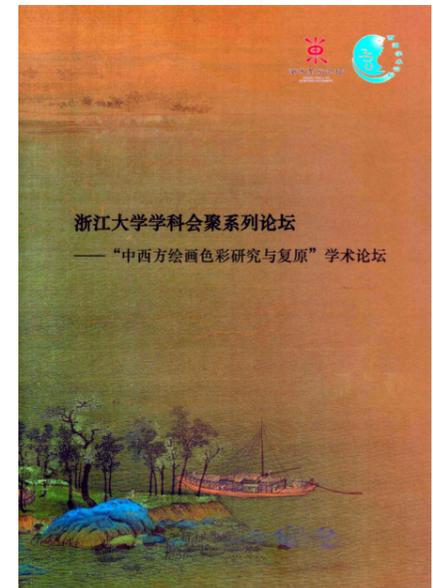
With the rapid progress and extensive applications of LED technology in the world, the color rendering evaluation method of light sources has been tightly focused on in recent years. For the existing CIE color rendering evaluation standard, several possible improvements have been proposed, as can be typically seen in the IES TM-30-15 "IES method for evaluating light source color rendition" as well



A part of the CAC participants, from Zhejiang University and Beijing Institute of Technology, at ACA2018 conference on 5-8 December 2018 in Chiang Mai, Thailand

as in the CIE technical report "CIE 2017 color fidelity index for accurate scientific use". In order for well adapting to the practical requirement, the China National Standard (GB) "Evaluation method for color rendering of light sources" was revised and approved in 2018 by the National Technical Committee on Color (TC120) of the Standardization Administration of China (SAC). In addition, a new GB standard "Names and colorimetric characteristics of Chinese common colors" was also accomplished and gotten through by SAC/TC120.

The academic forum "Study and restoration of Chinese and western painting colors" was conducted, as one of the West Lake discipline converging conference series, on 20 November 2018 in the Zijingang campus of Zhejiang University. With rather different professional backgrounds of art, material, color and computer science, the attendees exchanged their in-depth thoughts and methods for the color restoration in the Chinese and western paintings. The invited speeches included "Spontaneous chemical changes in European painters' pigments - retracing multistep transformations" by Prof. Koen Janssens and "Changes in paintings through time - multidisciplinary research in the Netherlands" by Prof. Klaas-Jan Van der Berg. Also presented were several specialized reports, including Prof. Xiongfei Wang's "Representation of mineral pigments", Prof. He Tian's "Degradation of Chinese and western ancient paintings", Prof. Duanqing Xu's "Virtual restoration of painting colors" and Prof. Haisong Xu's "Color correction of digital images".



The discipline converging series academic forum "Study and restoration of Chinese and western painting colors" on 20 November 2018 in Zhejiang University



// CROATIA //

## Hrvatska udruga za boje

CCS - Croatian Colour Society

Although relatively young, founded in 2013, the Croatian Colour Society is investing heavily in its growth and development and gradually increasing membership and expanding to ever-new areas that are professionally tied to colour. So in 2018, 5 new members from the field of visual arts and graphic and textile technology and science joined the Society.

### COLORINA WORKSHOP

The Croatian Colour Society also regularly organizes an educational and interactive STEAM workshop called "COLORINA". The idea and workshop authorship as well as the organization is signed by Assoc. Prof. Ana Sutlović, PhD, University of Zagreb Faculty of Textile Technology, member of the Croatian Colour Society. In 2018, by submitting a contest of the Croatian Ministry of Science and Education, the Croatian Colour Society received financial support under the Program of popularization of science, for the "COLORINA - STE(A)M workshops in the field of textile technology".

In 2018, 8 COLORINA workshops were held, from which the "White is Colourful" workshop must be pointed, that was held as part of the International

Colour Day celebration as well as in a scope of manifestation "Science Fair" organized by Technical Museum Nikola Tesla. Also, two very interesting and important COLORINA workshops were held in cooperation with the Institute of Archaeology; workshop the "Prehistoric Mark" at the manifestation of The 3rd Festival of Experimental Archaeology and workshop the "Prehistoric Textile Printing" held in a scope of Textile Science Research Centar Day, both in the field of Experimental Archaeology and Textile Chemistry.

### ACTIVITIES

As for the individual activities of the Croatian Colour Society members, we must emphasize the active participation of Professor Emerita Ana Marija Grancaric on International ERASMUS+LLP project with program "Knowledge Platform for Transferring Research and Innovation in Footwear Manufacturing (K4F)" and COST Association EU projects under title "COST ACTION CA16227 - Investigation and Mathematical Analysis of Avant-garde Disease Control via Mosquito Nano-Tech-Repellents" as Croatian project leader. During the 2018, among other accomplishments, she participated on AUTEX World



The "Prehistoric Mark" COLORINA workshop held in cooperation with the Institut of Archaeology, at 3<sup>rd</sup> Festival of Experimental Archaeology



"COLORINA" Workshop Summer 2018

## "They Come – Students of FTT: Textile Design 01" Exhibition



Textile Conference as well as on 16th Romanian Textiles and Leather Conference – CORTEP 2016 in Iashi as plenary speaker. She is, currently, member of editorial and scientific boards of 5 scientific and professional journals and publications and was also member of scientific end organization boards of 6 scientific-research as well as professional symposiums and conferences held in 2018 (International Colour Day Symposium – member of the organization board; AUTEX 2018 Conference – member of the scientific board; COST Action CA16227 project – Organizer of 2nd Management Committee Meeting and 1st Working group meeting; organizer of the COST Action CA 16227, 1.Workshop; The 8th International scientific-professional symposium "Occupational Safety and Health Protection").

Maja Strgar Kurečić, Associate Professor at the University of Zagreb Faculty of Graphic Arts and also member of the Croatian Colour Society, has won the 1st Prize at great world competition of art photography "12th Julia Margaret Cameron Award", in the category of abstract photography in a professional section with the photo series named "Other Worlds". The contest received 5,800 photographs of 760 photographers from 72 countries. The jury was the world famous and award-winning photographers: Julia Fullerton-Batten, Andrea Star-Reese and Laura Pannack. The winners will participate in a group exhibition of the best photographs of the "12th Julia Margaret Cameron Collective Exhibition", to be held in April, 2019 in Barcelona.

A member of the Society, Koraljka Kovac Dugandzic, an academic painter and professor of textile design at the University of Zagreb, Faculty of Textile Technology, accomplishes two very remarkable exhibitions with students of University of Zagreb Faculty of Textile

Technology: "The Line, the Thread, the Sashiko" - the compositions of the embroideries located in the frames of the small dimensions of circular or square shape and the exhibition of 300x100 cm textiles authorised also by the students of Faculty of Textile Technology, realized in various techniques of embroidery, hand painting, sewing to digital printing: "They Come – Students of FTT: Textile Design 01".

Costume Designer and Associate Professor of the University of Zagreb, Faculty of Textile Technology, member of the Society, Ivana Bakal, in 2018, has held the workshops in a scope of International project which she authorises "EDU International Student Costume Design / Fashion Design and Textile Design / Photography / Visual Criticism and Essay" project. She was also elected as the curator of national selection for the exhibition that will be held in Moscow, Russia in a scope of International project "Innovative Costume of the 21st Century-The Next Generation". In 2018, she also participated on International Exhibitions "Moving the Boundaries" – Beograd, Serbia; "Costume Art at the Turn of the Century 1990-2015" – Warsaw, Poland; "ART ECO/ Balance" and International festival "Cest is the Best" in Zagreb, Croatia. She signs significant costume designs for the Croatian National Theatre and other Croatian theatres.

The painter and the engineer of the black metallurgy, Krunoslava Kuljis, has again realized one independent exhibition of watercolours on silk and a fashion show of clothes designed from hand-painted silk.



Ivana Bakal and her work



// FRANCE //

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

### ACTIVITIES AT A GLANCE

The CFC activities for year 2018 concern collective or individual publications, exhibitions, conferences, workshops or guided tours, given in or out of France by its members.

Several public seminars mainly given by CFC members planned over the whole year :

- Organization and programme of the ICD, in Paris at Musée de l'Homme
- One exhibition and organization of a cultural week on Colour, including demonstrations
- Several exhibitions of contemporary paintings in France and in the rest of the world
- 4 Oral presentations at AIC2018 in Lisbon
- A lot of articles in international renowned journals
- Participation to the XIVth Conferenza del colore, Florence, Italy
- Collaboration with spanish and italian universities on painted medieval cielings by RCPPM, international meetings and european mobile exhibition
- Expert member in the Norwegian MUVApp project at NTNU (Gjovik)
- TV interviews of CFC members



From left to right: Jacqueline Boutin, Jacqueline Carron and Patrick Callet (CFC members) at a summer meeting in Poët-Laval (Drôme, France)

### January

- Exhibition Patatraces, François Bossière, Galerie Satellite, Paris.

### February

- Exhibition, Léau, la couleur et les songes, hôtel de Gallifet, Aix-en Provence, Yves Charnay.

### March

- 17th March, Gauguin, a great colourist, by Etienne Trouvers and Laurence Tardy.
- 21st March, International Colour Day, Les couleurs : des signaux visuels au langage, in Musée de l'Homme, Palais de Chaillot, Paris. Video records of the 9 talks available on DailyMotion (link available at [www.centrefrancaisdelacouleur.fr](http://www.centrefrancaisdelacouleur.fr)) by Robert Sève, Larissa Noury, Laure Bonnaud, Michèle Ballinger, Cléopée Moser, Manuel Valentin, Philippe Denizet, Virginia Cassola, Valérie Bonnardel and Patrick Callet.
- The colours of Otto Von Guericke, Magdeburg, Germany. Yves Charnay, artwork 25m height.

### April

- M6TV, Recording of On the making of colours for lead pencils, Sonia Ovarlez, Patrick Callet.
- 1st April, The April fool, Les couleurs invisibles, about the invisible colours of effervescent suppositories used in chromotherapy, Patrick Callet. La raie au mur de Chardin, Michel Indergand. Texts in french only.

### May

- 22nd May, The stones of Paris : built and colour, invited talk by Marc Viré, geologist.

### June

- 2nd June, The Samedi Bleu – Saturday in blue, at Ecole des Mines de Paris, Histoire de l'outremer.



Saturday in blue, 2nd June, public demonstration of colour change by heating of mixtures of indigo and sepiolite. Maya blue formulation and new derived pigments, Sonia Ovarlez

Du bleu idéal au blanc éclatant, dedicated to the extraordinary story of Ultramarine blue, by François Delamare and also very exciting talk Le bleu maya, histoire et source d'inspiration contemporaine about The Maya Blue, by Sonia Ovarlez with a lot of public demonstrations about the evolution of color depending on heating of several mixtures of sepiolite and indigo.

- Commented visit of the Museum of Mineralogy in Ecole des Mines de Paris: Colour of minerals and minerals of colour, by Patrick Callet.
- Solstice d'été et effets merveilleux médiévaux, on the polychromy of the facade of Notre-Dame de Paris cathedral in the XIIIth century and the natural lighting effects produced on gills, paints, mirroring tessels at sunset during 21st June. Patrick Callet and Laurence Tardy.

### July-August

- 29th July - 5th August, La couleur dans tous ses états, annual cultural week in Saint-Pal de Chalencon (Haute-Loire), exhibition, talks and public demonstrations of spectrophotometry applied to the colour of wines, Patrick Callet.
- International Park of Cévennes, Workshop on Art, Yves Charnay.
- Article in Color Research & Applications, Robert Sève.

### September-October

- Participation and expertise at CVCS (Color Vision and Computing Symposium) a MUVApp annual conference at NTNU, Gjovik, Norway .
- 7th September - 27th October, Exhibition Respiration minérale, by Caroline Besse at Museum of Mineralogy in Ecole des Mines de Paris, commented visit by Patrick Callet.
- AIC2018 in Lisbon, 4 oral presentations by CFC members.

- Our Approach to Mediation on Colours, Natacha Le Duff (also Museum of Colours, Berlin).
- Rethinking Baker-Miller Pink through Gender Studies, Kevin Bideaux.
- Metallic Diffuse or Specular Inter-Reflections of Light and Spectral Multiplication for Accurate Rendering, Patrick Callet.
- An approach to face contrasts in women faces under CIE standard illuminants and representative white LED sources, Hélène de Clermont-Gallerande et al.
- Interview by FR3 TV Pays de Loire, Sophie Mouton-Brisse.

### November

- Construction et composition d'une œuvre picturale par la Couleur, Laurence Tardy and Etienne Trouvers. Does Color govern our senses? Round-table organized by Sophie Mouton-Brisse with the participation of the head chef Thierry Marx and Abigail Bruce (Pantone).
- 9 talks on Colour at Habitat Déco show in Nantes, Sophie Mouton-Brisse.



From left to right: Natacha LeDuff (Museum of Colours) and Kevin Bideaux, CFC at AIC2018 in Lisbon

### CFC NEW WEBSITE AND LOGO

Kévin Bideaux - Icart Prize 2018 - Artistik Rezo, Paris. France2-TV interview for Où sont les hommes? Hiroshima, mon amour, Memorial for Peace, Hiroshima, Japan. 50 shades of pink, exhibition in Paris.

Larissa Noury - Exhibitions: Art Capital, Grand Palais, Paris; Parfum des couleurs.

// GERMANY //

## 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 last year was the annual conference on 9th and 10th of October 2018. The conference was hosted by Hohenstein Laboratories, the textile research centre in Bönnigheim.

The conference started with meetings of the following working groups Colorimetry and Fundamentals, Multigeometry and Fluorescence have been taken place. They were led by professor Christoph Schierz of TU Imenau, by Dr. Alfred Schimacher of PTB and by Dr. Claudio Puebla of Axiphos.

The conference began with honorary colloquium

*With more than 50  
participants the 44.  
Conference of DfwG was a  
successful event.*



Participants of the DfwG conference in Boennigheim

on the 80th birthday of Professor Hill organised by the working group colour imaging processing led by the DFWG-president Dr. Andreas Kraushaar (Fogra). Four lectures focused on “Multi-Spectral Technology: Yesterday, Today and Tomorrow”. They paid tribute to the life’s work of Professor Bernhard Hill. Gregor Fischer talked about “Color Accuracy of Digital Cameras”, the topic of the talk of Patrick Herzog was “Influencing Factors of the Quality of a Soft Proof” and Tarek Stiebel spoke about “Demosaiicing” of higher dimensional Pixel Patterns of Integrated Multi-Spectral Cameras”. The talk by Michael Dattner “From offline to inline and from spectral to multispectral” closed the first session. The honorary colloquium ended with a panel discussion: “Multi-Spectral Technology” with Prof. Bernhard Hill.

In the afternoon, the general meeting of the DfwG took place. Professor Bernhard Hill was appointed honorary member of the Society.

Saskia Polster was honoured for her dissertation “New Colour Matching Functions for Correct Characterisation of LED Spectra” and Introduction of an Index of Metamerism of dependence of the viewing field size with the award for young colour scientists. Another prize was awarded to Johannes Michl for his master’s thesis “Investigation of the Suitability of Different Colour Matching Functions for Binning of White LEDs”.

The traditional conference evening took place in an old brewery and wine tavern in Bönnigheim and facilitated professional exchange and interesting discussions.

On the second day of the conference in the session

“interdisciplinary colour” Kazim Hilmi Or talked about “Two or more slits of an interdisciplinary colour scientist” followed by Holger Everding with his presentation “HLC-Colour Atlas – Unrestricted Colour Communication”.

The 3rd session dealt with “Colour and total Appearance: Colour Measurement Technology and Standards”. Alfred Schirmacher’s presentation was about the “Measurement of Sparkle Properties”, followed by Werner Rudolf Cramer “The Fibonacci Temptation” and Christian Dietz “Stop Playing around - Varieties of Gloss”.

Felix Schmollgruber gave a lecture entitled “MA-Tx – The next Generation Appearance Measurement Technology” in memory of his colleague Wilhelm H. Kettler, who passed away right before the annual conference.

The program of the conference included a visit to the laboratories of the Textile Research Center Hohenstein and the presentation of research projects and measurement technology.

The last session dealt with “Colour in Industrial Applications”.

Franziska Mertens talked about “The Application of Colorimetry in the Development of a Reference Preparation Process for high Visibility Safety Clothing”, a research project of Hohenstein Laboratories. Friedrich Gläser presentation dealt with the “Simulation of Radiation Propagation in Absorbing and Scattering Media”. In the last presentation, Jaqueline Wittmann & Marco Mattuschka (Fogra) talked about “Consistent Color Appearance - an Inventory” – including the work of the CIE working group 8-16 consistent colour

appearance. The strong focus on the total colour appearance is reflected by the strong support of the EU BIRD project (Bidirectional Reflectance Definitions), which resulted in the foundation of a new appearance working group.

The next annual meeting will take place on October 9th and 10th at the Leipzig University of Applied Sciences.

### DIN - FNF

In 2018 the new standards include:

- DIN 5033-9:2018-04 “Colorimetry – Part 9: White-Standard for calibrations in colorimetry and photometry”
- DIN 6175:2018-08 “Tolerances for automotive coatings - Solid and effect coatingsl”
- DIN 6176:2018-10 “Colorimetric evaluation of colour differences of surface colours according to DIN990 formula”

Withdrawn

- DIN 5033-9:2005-10 (replaced by DIN 5033-09:2018-04)
- DIN 6176:2001-03 (replaced by DIN 6176:2008-10)

[www.dfwg.de](http://www.dfwg.de)

[www.din.de](http://www.din.de)

[www.deutsches-farbenzentrum.de](http://www.deutsches-farbenzentrum.de)

// GERMANY //

## Deutscher Verband Farbe

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

**DEUTSCHES FARBENZENTRUM (DFZ)**  
German Color Association

### COLOR IN DESIGN - THE VALUE OF COLOR

In October 2018, color experts met at the conference „Farbe im Design - the Value of Color“ at the HAWK Hildesheim, Germany, co-organized by the German Color Association (Deutsches Farbenzentrum e.V.) based at the University of Wuppertal. Around 240 visitors from Germany and neighboring countries gathered at the HAWK University of Applied Sciences and Arts in Hildesheim for the international two-day conference. The conference, sold, thus it was streamed live for conference attendees.

Current research topics in color design were presented and discussed in 29 lectures and twelve practical workshops. Prof. Timo Rieke and his team at the HAWK had been able to attract architects, designers, scientists, craftsmen, artists and industry



Joerg Niederberger giving his talk at Farbe-im-Design-Meeting

representatives in order to debate the future topics of color in a cross-disciplinary and cooperative manner.

The aim of the conference was to promote the encounter and exchange of knowledge and experience in the strategic use of color in design and sub-disciplines of architecture. Lectures from various scientific, technological and design disciplines, as well as practical workshops. The Farbdesignforum as well as the lighting lab, color design lab, and spatial laboratory did stimulate a deeper discourse on the topic.

Normally we often stand alone as a discipline - color design is not as well established as product or graphic design and still a growing niche topic," said Prof. Rieke. "But all the people here are color professionals - you understand each other perfectly. The conference is designed to reflect all varieties of color, from craft to science to design and art."

Dr. Axel Buether, spoke about his research field "How colours control metabolism". Thomas Granseuer and Tomislav Topic, the founders of Quintessenz, presented their murals and large room installations. Prof. em. Axel Venn (Colour Researcher and former HAWK Professor for Colour Design) gave the workshop "Marketing with colors" on the topic trend scouting and perceptual science. The participants were welcomed by Dr. Marc Hudy, President of the HAWK: "Such meetings make us visible," said Hudy, emphasizing the special nature of the event: "This conference is very typical of our university: it is interdisciplinary".

Prof. Timo Rieke drew a very satisfied conclusion at the end: "I see a lot of inspired people today. I hope that the Hildesheim will be on your map in



Award ceremony and recipients of the Karl-Miescher-Prize 2018

the future. We had wonderful lecturers that could show the value of color in design clearly." Further publications will follow.

Many lectures can be found as videos at the digital platform color.education. The Website for the conference with further information will stay online: [www.farbe-im-design.de](http://www.farbe-im-design.de)

### LECTURES/WORKSHOPS

Martin Benad, München; Studio Besau Marguerre, Hamburg; Prof. Mark Braun, HBK Saar; Prof. Dr. Axel Buether, Bergische Universität Wuppertal; Justine Fox, CalzadaFox, London, UK; Jessica den Hartog, Maastricht, Niederlande; Jörg Held, Texturwerk, Reinheim; Karine Steculorum & Thierry Lescauwae, Color Passport, Antwerpen, Belgien; Jörg Niederberger, Artist, Büren, Schweiz; Nathalie Pagels, Color Designer, Düsseldorf; Prof. Timo Rieke, Hannover; Tomislav Topic & Thomas Granseuer, Quintessenz, Hannover/Berlin; Prof. Markus Schlegel, Frankfurt; Axel Voelcker, Ober-Ramstadt; Hardy Seiler, Hannover; Mark Gutjahr, BASE, Münster; Prof. Dr. Karl Schawelka, Bauhaus Universität Weimar; Prof. Dr. Friedrich Weltzien, Hochschule Hannover; Dr. Ralf Buchholz, HAWK; Ina Birkenbeul, HAWK; Prof. Axel Venn, Berlin; Beate Breitenstein, HAWK; Jutta Werner & Livia Baum, zukunftstil, Hannover/Dresden; Barbara Diethelm, Fondation Lascaux, Schweiz;

Farbdesignforum: Lisa Kempf, HAWK; Katharina Bartneck, HAWK; Mia Krämer, HAWK; Alina Schartner, HAWK; Natacha Le Duff, Museum der Farben, Berlin; Lena Lübben, HAWK; Ariane Clermont, HAWK; Mareike Hackbarth, HAWK; Linda Hasdorf & Annika Schenk, HAWK; Rahel Brochhagen, Berlin.

Photos: Kevin Momoh

### AWARD CEREMONY

Karl-Miescher-Preis was on October 13th, 2018, the award winners and the best competition results were awarded and presented at the Faculty of Design. The prize was awarded by the Deutsches Farbenzentrum e.V. and the HAWK Hildesheim. JURY: Prof. Mark Braun (HBK Saar) / Prof. Dr. Axel Buether (BU Wuppertal) / Dipl.-Des. Martin Brandes (HAWK) / Prof. Dominika Hasse (HAWK) / Prof. Timo Rieke (HAWK)

- 1st prize: "Complementary" by Theresa Kretsch (Kunsthochschule Weißensee, Berlin)
- 2nd prize: "Neo Patina" by Marcel Kreipe (HAWK Hildesheim)
- 3rd Prize: "Essence - Inspiration Peru" by Melissa Lindemeyer and Lina Schmidt (HAWK Hildesheim)



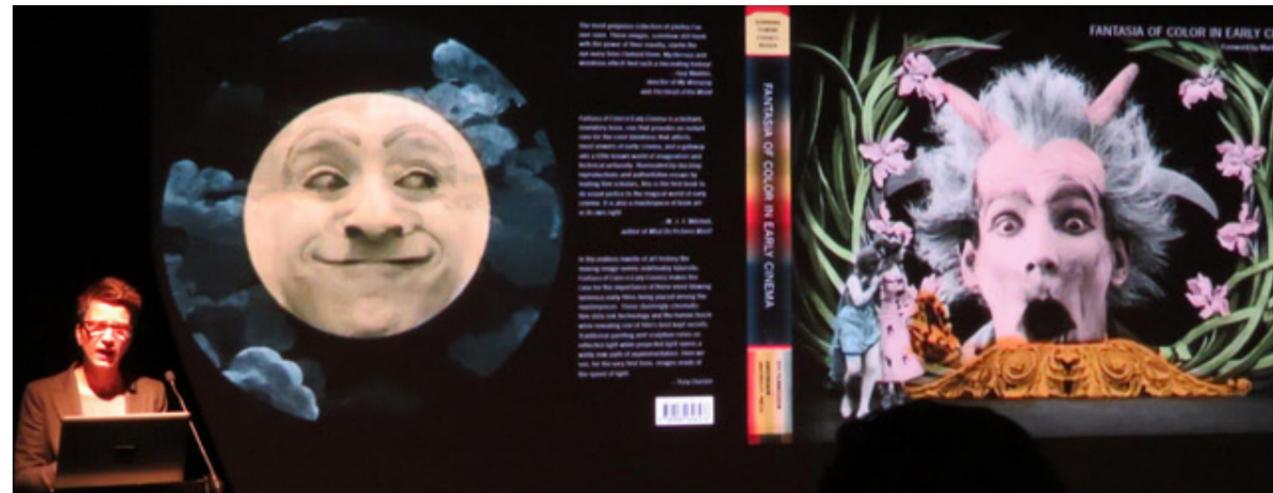
// GREAT BRITAIN //

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

### REVIEW

In 2018 the Colour Group (GB) hosted 392 attendees at 9 events. At our regular 1-day January Colour Vision meeting, among 9 speakers, Janus Kulikowski gave the Palmer lecture on hue perception and colour constancy, and Jenny Bosten gave the CRS-sponsored lecture on colour discrimination and natural scene statistics. In March the Colour Group (GB) hosted the Third International Conference on Colour in Film featuring keynote talks by Harald Brendel, Giovanna Fossati, and Michael Pointer, screenings of restored films, including a public screening of the 2017 restoration of MÜNCHHAUSEN (GER 1943, Josef von Báky), and an extensive FilmColors workshop, led by Barbara Flueckiger. In we hosted Colour in Art, where artists Anne Jackson, Margo Selby and Philip O'Reilly discussed colour in the context of woven artworks. Also in April we hosted the two-day Colour in Employment conference featuring 20 talks on applied

and clinical colour science, including talks on colour vision in the contexts of different sectors: maritime by Tim Carter, aviation by Stuart Mitchell, John Barbur and Adrian Chorley, policing by Anya Hurlbert and Ché Donald, and education by Siofra Harrington and Kathryn Albany-Ward. In October, artists Alan Kitching and Brian Lewis presented at our Colourful Words event. In December we hosted Colour in the Clinic featuring 6 talks on clinical practice by speakers including Gordon Plant, John Barbur and Rimona Weil. In 2018 the Colour Group (GB) was a cooperating society of 2 international conferences: the Gruppo del Colore - XIV Colour Conference (Florence, Italy) and the Twenty-sixth Colour and Imaging Conference (Vancouver, Canada). We also sponsored the International Symposium of the Science and Technology of Lighting (Sheffield, UK), W S Stiles Memorial Lecture (London, UK) and the summer school of the International Colour Vision Society (Oxford, UK).



A keynote presentation by Giovanna Fossati at the Third International Conference on Colour in Film

### 2018 NEWTON MEDAL

The Colour Group (GB)'s Newton medal for 2018 was awarded to David Foster for his exceptional work on computational colour vision and colour constancy, also giving the Newton lecture The randomness of colours.

### EARLY CAREER AWARDS

One Palmer award and four W. D. Wright awards were presented to enable early career researchers Andy Rider, Takuma Morimoto, Cat Pattie, Miaomiao Yu and Joshua Harvey to attend conferences to present their work on colour. Awardees presented their research at the Colour Group (GB) Student Awards meeting in November. Also awarded were two bursaries for participating in the ICVS summer school to Alice Skelton and Lucy Somers.

### THE FUTURE

The future plans of the Colour Group (GB) include maintaining and developing collaborations and partnerships with other organisations concerned with light and colour, continuing to provide travel grants and student poster awards, and maintaining a new student grant scheme to provide financial support for students and young researchers to attend events facilitating their professional development.



Andrew Hanson, Colour in its Place, lecture at AGM



Artwork by Anne Jackson, presented at Colour in Art

// HUNGARY //

## The Hungarian National Colour Committee ICCPH

### REVIEW

The Hungarian National Colour Committee was founded in 1969. It has maintained its activities until today and has produced numerous reports and organised exhibitions and series of scientific lectures for the general public in the colour fields of vision, environmental design, fine arts, measurement, colour and pattern harmony.

During 2018, there were some colour-related events. On 6-7 February, the IX LED Conference and exhibition was organised by Óbuda University and by the Hungarian Lighting Association. The conference topics were ranged from smart-city lighting to organic LED systems. Here are some titles from the conference program: Investigations of environmental light pollution (by Zoltán Kolláth, Dénes Szász); Past, present and future of LED technology (by Péter Schwarcz); Lighting education (by László Balázs, József Nádas). There were 26 lectures presented, and also a range of LED-related industrial exhibits.

In October a special “Week of Painting” was organized with numerous exhibitions around the country. The Kondor Community House is always great place for this event series. Many of our colour committee members participated on this event. The opening ceremony was organised on 5th October.



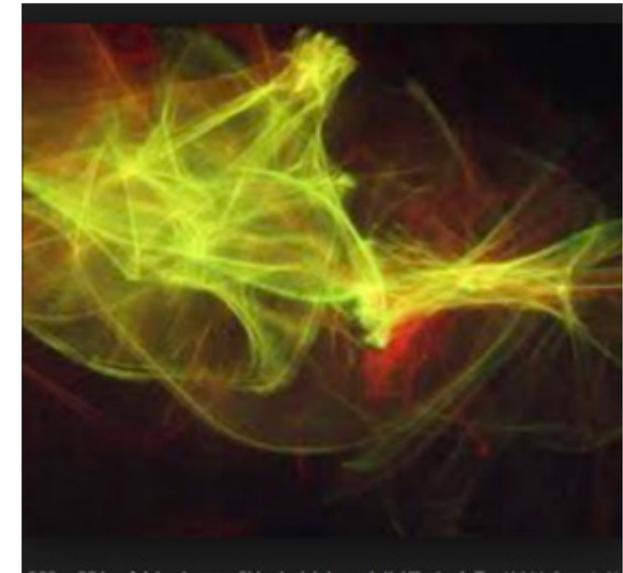
Opening ceremony of the “Week of painting” at the Kondor Community House

We have to continue this report with sad news. A leading member of our colour committee, artist Béla Tilless passed away. He could still participate at the opening ceremony of his last exhibition in the Karinty Salon on the 25th of September but died soon thereafter. He was 86 years old.

### GENERAL MEETING

The general meeting of our colour committee was held on 21 November in the atelier of Attila Csáji. Attila Csáji is member of Hungarian Academy of Art (former as vice president) and also leading member of our Colour Committee. In this event, more of them, we commemorated about the late Béla Tilless and we acquainted with recent works of Attila Csáji.

Attila Csáji is a very famous and particular member of the artistic world. He is a painter, a graphic artist, a light artist and also a holographer. He is so called artist researcher, because he developed a novel artistic laser visualising system. He participated in more of 450 exhibitions including the most important events in the field of art and science such as “Electra 83”, exhibitions of the Paris Museum of Modern Art based on the use of electricity in art, and “Lichtblicke”, the first word holography art exhibition in Frankfurt. In the occasion of international year of light, in 2015, he had a monumental exhibition in the Art Gallery Budapest (Múcsarnok).



A light-pattern from Attila Csáji



Part of the Kondor exhibition: paintings from Antal Nemcsics



Béla Tilless' painting in Karinty Salon



Attila Csáji explain in his atelier



Lecture on the LED conference



// ITALY //

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

### IN MEMORY

The year 2018 began with the sad news of the premature death of our Emeritus Member Claudio Oleari on January 23rd.



Claudio Oleari

He was an eminent physics scholar and an Associate Professor at the Department of Physics and Earth Sciences, University of Parma. He dedicated his life to colour, teaching it to students with the same passion and interest that he dedicated to the researches in the context of colour, applying physics to perception and fixing its role in colorimetry. In 1995, he started the Gruppo in Colorimetria e Riflettoscopia, which later became the Associazione Italiana Colore.

He was extremely active within the Colour Italian Association, supporting and stimulating its members and connecting the different souls that make the colour world so magic. His legacy to our colorful world is self-evident by the quality and quantity of papers and books he wrote.

His death leaves a void difficult to fill and the world of colour loses an intelligent, attentive and informed scholar.

### ANNUAL CONFERENCE

The main event of the year that involves all the members of the Gruppo del Colore - Associazione Italiana Colore is its annual Conference. The XIV edition was held at the National Research Council of Florence in September 11th-12th. It was organised as joined meeting with Associação Portuguesa da Cor, Centre Français de la Couleur, Colour

Group (Great Britain), Colourspot, Comité del Color, Deutsche Farbwissenschaftliche Gesellschaft, Forum Farge and Gropue Français de l'Imagerie Numérique Couleur.

Invited speakers were Prof. Manuel Melgosa (University of Granada), Alessandro Rizzi (University of Milan), Gabriele Simone (Reneas Electric GmbH) and Valerio Salvadori (artist-jeweller at V.M Preziosi Firenze).

During the Conference, there was the award ceremony of the fourth edition of the Premio Colore assigned to Roberto Capucci for his outstanding contribution to the color sensitivity in the design-fashion fields.

Starting in 2018 and ending in 2019, Associazione Italiana Colore has organized, with Politecnico



Participants in the XIV Italian Colour Conference

di Milano, the 3rd edition of the Master in Color Design & Technology under the direction of Prof. Maurizio Rossi (Politecnico di Milano) and Prof. Alessandro Rizzi (Università degli Studi di Milano), and with the tutoring of Dr. Ingrid Calvo Ivanovic and Alice Plutino. The contents of the Master are organized in the first part into four main topics related to the History and Perception of Color; Colorimetry and Color Systems; Digital Color; and

Color Applications, and in the second part in five different hands-on practical workshops on Color in Communication Design; in Fashion Design; in Interior Design; in Product Design and; in the Urban Space. All topics are taught from the different approaches of teachers and professionals from the area of design, art, and industry, to students of nine different countries.



First lesson of the 3rd edition of the Master in Color Design &amp; Technology



Delivery of the 2018 Premio Colore to Plinio Capucci, representing the winner Roberto Capucci



// JAPAN //

## 日本色彩学会

CSAJ - Color Science Association of Japan

### 48TH ANNUAL MEETING

The 49th Annual Meeting of the Color Science Association of Japan (CSAJ) was held on 2-3 June at Osaka City University in Osaka chaired by Dr. Hideki Sakai. More than 250 participants attended and 72 contributed papers including 11 international session papers and 2 color design works were presented. The year 2018 marked the 70th anniversary of the foundation of CSAJ. As



Keynote lecture by Akiyoshi Kitaoka



Reception at Annual Meeting 2018

the memorial events, the keynote lecture "Color vision in two contexts" by Prof. Akiyoshi Kitaoka at Ritsumeikan University, and the panel discussion "Future of Color Design" chaired by Dr. Kazuyuki Natori at Japan Color Research Institute were held. The CSAJ Presentation Encouraging Prizes were given to five students: Kosuke Amo (Osaka University) "In Silico Optical Analysis of Dental Esthetic Restorations 4th Report : Comparison between Simulation and Actual Measurement", Takumi Nakamura (Chiba University) "Crossmodal Shitsukan Model between Computer Graphics and Sound Effects for Glossiness and Metallic Perception", Hiroki Shirasawa (Chiba University) "Skin Appearance Control by Spectral Projection Mapping", Yusuke Tanada (Osaka City University) "Development of Heating Test Equipment for Improved Utilization of Superheated Steam: Monitoring Color Change of Food in High Temperature", Taiga Mikami (Chiba University) "Influence of complexity of image on color gamut expansion effect".

### AWARDS

- 10th CSAJ Paper Award: Midori Tanaka and Takahiko Horiuchi (Chiba University) "Physical indices for judging appearance harmony of materials", Color Research and Application, 42(6), 788-798, 2017.
- 20th CSAJ Research Encouraging Award: Shigehito Katsura (Kyushu University) "Analysis of confusing colors of crayons: to discover color deficiency from color usages in children's crayons", Journal of the Color Science Association of Japan, 41(5), 189-200, 2017.
- 22nd CSAJ Award: Naoyuki Osaka, for his longtime contribution to the association and influential research on color recognition.

### PUBLICATIONS

The CSAJ published six issues of the Journal of the Color Science Association of Japan in 2018. Seven original papers, two short papers and one research note were published.

### UPCOMING MEETINGS

- The 50th Annual meeting of the CSAJ will be held on 1-2 June 2019 at Tokyo Polytechnic University.
- The Study Group symposium will be held on 29 November – 2 December 2019 in The 5th Asia Color Association Conference (ACA2019 Nagoya).

### LOCAL CHAPTERS

Three local chapters in the Kanto, Tokai and Kansai areas worked actively and organized several meetings throughout the year. CSAJ's newly elected executives started on 3 June 2018: Shin'ya Takahashi (President), Kazuyuki Natori (Vice president) and Hiroyuki Shinoda (Vice president) with 9 trustees. Currently, CSAJ has 1,246 members.



Poster session at Study Group Meeting 2018

### 2018 STUDY GROUP MEETING

The Study Group Meeting 2018 was held on 24–25 November in Tokyo Kasei Gakuin University in Tokyo, chaired by Dr. Takashi Sakamoto (AIST). More than 220 people attended, and 56 contributed papers were presented. Out of the 12 Study Groups 10 contributed to the meeting. In a special event for the 70th anniversary of the CSAJ on the first day (24 Nov.), two invited speakers lectured on color terms and color categories: 'Essentials of Color Terms and Color Categories in English and Japanese: Focusing on the Characteristics of Japanese Color Names' by Prof. Kohji Yoshimura (Kansai Gaidai College), and 'Colors in Words, Colors in Brains' by Prof. Ichiro Kuriki (Tohoku University). The CSAJ Presentation Encouraging Prizes were given to Ikumi Ono (Kansai Paint Co.,Ltd.), and Koshiro Maeda (Chiba University).



Oral session at Study Group Meeting 2018



// KOREA //

## 한국색채학회

**KSCS** - Korea Society of Color Studies

Established in 1988, the Korea Society of Color Studies (KSCS) joined the International Color Association (AIC) in 1995, and after leading the 2000 AIC Interim Meeting in Seoul, the organization successfully hosted the 13th AIC Congress in Jeju Island, which is an official UNESCO World Heritage site. In the year 2018, KSCS has engaged in the following activities.



### ACTIVITIES

Regarding the Society's academic activities in 2018, KSCS published four journals, held two academic conferences and one international seminar. The KSCS' journals, which are registered in the National Research Foundation of Korea, were published on the last days of February, May, August and November as scheduled, and 40 papers in various fields such as color technology, design and education were published after a rigorous evaluation process. The spring academic conference was held at the Seoul Museum of History with a theme 'Flower Color Space' on 18th May and there was a lecture titled 'Floral Color Trends in Floral Space Decorations' by Prof. KyungHee Wang (Shingu University). Besides, as an event appealing much

to many members, there was also demonstration on scientific measurement and statistical analysis of a color stimulus with a theme 'Color Laboratory Visiting You' at a booth during the conference. There were some achievements making student members in various fields of color participating.

### ACADEMIC CONFERENCE

The autumn academic conference was held at KAIST (Korea Advanced Institute of Science and Technology) with a theme 'Color Connecting Science and Art' on 2nd November and a team manager of LG Electronics, SeungHyeon Lee presented a lecture on '2019-20 CMF TREND'. As for special sessions, firstly 'KCIE Workshop Session' had the time for exchanging with members about the recent trends of CIE and activities of KCIE. Secondly, in 'My School Filled with Beautiful Color Session', results of the environmental improvement project for Seoul elementary-middle-high schools by Seoul Metropolitan Office of Education were presented and the best practice was introduced. Unlike the existing projects, the project conducted color education and workshop where students participated to reflect their opinions and hence it aimed to raise students' satisfaction at a school life so give aid to the environmental improvement.

### ACADEMIC SEMINAR

The international academic seminar was held at Chung-Ang University with a theme 'New Trend & Design Approach of Urban Color' on 6th October. Prof. Yoshida Shingo from Japan and Prof. Dina Shin from Russia gave lectures and at the symposium it was possible to diagnose international trends of urban environmental color and understand roles of color in the development of domestic urban environmental design.

### AWARDS

Furthermore, the 16th Korea Color Awards which has contributed to enhancing the development of Korean color culture and expertise of the color industry were held this year and individuals, companies, institutions and local governments submitted many works in 8 sectors including urban-residential environment, architecture-interior, fashion and industrial product.

Nine pieces of work were selected as grand prize winners including:

- 'Castelbajac brand' by HYUNGJI as the prize of the minister of the Ministry of Trade, Industry and Energy,
- 'T\*BRICK' by Eutoplus as the prize of the president of the Korea Institute of Design Promotion, and Educational Space Planning Promotion,
- SOME (Seoul Metropolitan Office of Education) as the prize of the president of the Design Alliance of Korea.

### EXHIBITION OF COLOR WORKS

Now in its 11th year, the 2018 KSCS International Invitation Exhibition of Color Works was held with the theme of "All the way that colors", gathering artists from Asia, Europe, and America. A total of 9 pieces were selected as award winners.



The 16th Korea Color Awards



The autumn academic conference - opening speech by Professor Jinkyung Park of KSCS President



The 2018 KSCS International Invitation Exhibition of Color Works

// THE NETHERLANDS //

## Stichting Kleurenvisie: Het Netherlands Platform voor Kleur

The Netherlands Platform for Color

On 21 March we celebrated the International Colour Day in the building of Circl, a circular hotspot in Amsterdam. New members of the board were colour-pitching and each of them had invited an expert for a lecture about colour and/or circularity. All involved were pleased to see each other again in the well-attended meeting.

### COLOUR MATERIALIZED

30 November 2018

This seminar we organised in cooperation with Foundation Material Sense LAB.

We are reusing more and more materials for new products. The time when this reuse only led to grey, indefinable colours is over. What is involved when we bring together the aesthetics of colour and material and the technical possibilities in practice? In the world of circular use of colour, how can we design products that not only inspire, but are also accepted if it is produced on a large scale? Colour psychologists, designers and material scientists showed the latest state of affairs and gave a glimpse into the future. Multiple topics passed by diverse speakers like: Biophysicist Jan Walraven, honorary member of SKV and former secretary treasurer of the AIC.

Duopresentation by Ad Pruyn, professor of Consumer Psychology University Twente and Mirjam Galetzka, consumer psychologist. On the basis of two studies, one at the Dutch Railways and one in the lung department of a hospital, they provide an insight and shared the outcomes of those studies.

Dorien Derksen, professor applied sciences and lecturer biobased products. Dorien and her team researches the development and properties of biobased colours for non-food applications. They focus on the development of natural dyes from residual flows and renewable raw materials such as: seaweed, sorghum, onions, and how these dyes can be technologically disclosed and used in bioplastics for textiles.

Dick Broer, a former Philips researcher talked about liquid crystals. He developed techniques to lay the rods in exactly the desired directions and then secure those structures in a network with photoche-

mical tricks. The result is solid film-thin plastics, which have a special internal structure invisible to the eye. In combination with polymers that can swell or shrink on demand, this gives films that deform under influences such as light, heat or an electric field.

Bas Sanders (Foundation Biomimicry NL) talked about applying knowledge that nature has built up in 3.8 billion years of evolution to find sustainable solutions.

Jessica den Hartog, designer studying behaviors of people, materials and objects to reshape them. She sorted, washed and recycled a bale of HDPE by hand to explore the limits of what is useful and to experiment the development of new materials.

Textile designers Laura Luchtman en Ilfa Siebenhaar are looking for an alternative to toxic textile dyes. They are working together on the Living Colour research project which is a continuous biodesign research project that investigates the possibilities of natural textile paints with pigment-producing bacteria and sound frequencies.

All remarkable and stimulating projects and experiments in which creativity, innovation and entrepreneurship are central.



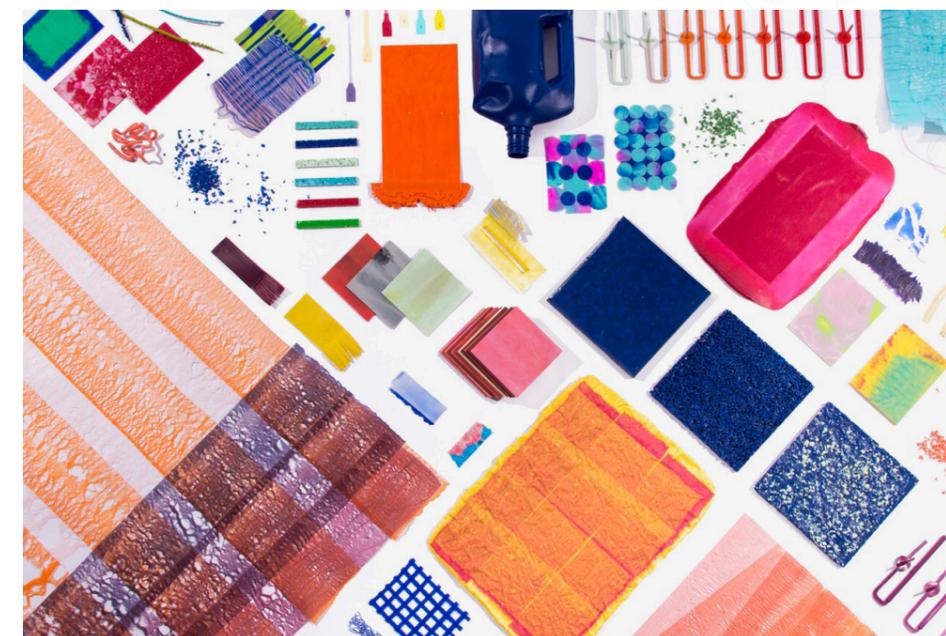
Living Colour project



Flyer 31 november kopie



Avans Hogeschool, Breda



Recolored, samples kopie



// NORWAY //

## Forum Farge Norway

Forum Farge, the Norwegian Colour Association, was founded on 10th April 2013. The purpose of Forum Farge is to stimulate research on all aspects around colour, to disseminate research-based knowledge about colour, and to facilitate applications of this knowledge to solve colour related problems within art, design, architecture, science and technology on a national level. The group became a member of AIC in 2014. More information about Forum Farge can be found on [www.forumfarge.no](http://www.forumfarge.no).

### CONFERENCE:

The annual conference Forum Farge 2018

#### Surfing Colour III

Was held on 21st March 2018 / International Colour day at the University of Bergen / Knut Knaus Auditorium. This event was a joint venture between Forum Farge / UIB.

## SURFING COLOUR III

FARGESEMINAR  
21. MARS



#### PROGRAM

08.30 - 09.30 Registrering  
Velkommen  
• Professor Mette Lorange og Institutt leder Mona Larsen (KMD) Institutt for Design  
• Margrethe Odgaard Tokstad, og farge designer med eget studio i København: Farver som et sanseligt sprag  
• Thomas Gjetmundsen Interiørarkitekt, utdannet ved Institutt for design ved UIB: Farge setting i utstillingen via bilapp-analyse  
• Gilles & Cecilie studio UK, Grafisk design/illustrasjon/rommaleri: Making the World Colourful  
• Heidi Aarstad/Swedish Swedish Design Hub/aktor/KMD - i/f Bergen  
• Jean-Baptiste Thomas Post-doc-NTNU: The appearance of colour Quantifying material appearance  
• Helle Wijk Registeret i skulptur - Doctor i skulptur og PhD ved Göteborgs Universitet: Kan den fysiska miljön ställa en personansett vid och omsorg? Färg och ljus betydelse.  
• Bent Erik Myrvoll Kurator og Muralmaler/kalkmaler: Fargene material og agensert  
• Norbert Seidel Kirkelundmaler/Innlemmerer: Fra en gammel malerpraksis  
• Arne Steen Forum Farge

SURFING COLOUR III  
FARGESEMINAR | ÅRSMØTE 21.03.18  
FORUM FARGE  
KMD | UIB INSTITUTT FOR DESIGN  
KNUT KNAUS AUDITORIUM

\*\* 350,- v. inng.  
Gratis for studenter, skolens stab og medlemmer av Forum Farge.



NTNU JOTUN

### ORGANIZATION AND CONTENT:

Forum Farge – The Norwegian Colour Association and Professor Mette Lorange

The “Surfing colour III” seminar was held in Bergen during the International Colour Day in collaboration with the Faculty of Art, Music, and Design at the University in Bergen.

Professor Mette Lorange (of Colour) was the main organizer.

The seminar included keynotes such as Copenhagen based designer Margrethe Odgaard, with a focus on colour and textile. Along with her own work she presented colour scales devised as a personal response to the lack of embodiment and materiality in conventional and commercial colour systems and palettes.

Norwegian interior designer Thomas Gjetmundsen talked about the strategies applied to the bold colouring of the exhibition walls of Lillehammer Art Museum echoing the items displayed by the Norwegian artisan and jewelry designer Liv Blaavarp. This was a solo exhibition in 2017. London based duo “Gilles and Cecilie Studio” presented their maximalistic and outgoing work covering a variety of fields, which concluded with the set design for Nissan TV commercial that was commissioned by Pulse Films.

French PhD student at NTNU, Jean-Baptiste Thomas, presented issues concerning his work with colour and quantifying material appearance. With a background from nursing, Swedish researcher Helle Wijk talked about the importance of colour and light in the physical environment of a person-centered health care. In one of the afternoon talks

Norwegian artist and mural painter Bent Erik Myrvoll presented his own studies on lime work and mural-based art, and his collaboration with another Norwegian artist, Sverre Wyller, for the fresco in Løren sub-way station in Oslo.

Approximately hundred people attended the seminar including students from the Design Institute and Forum Farge members. Full of inspiring presentations and discussions, the seminar concluded with the annual meeting of Forum Farge.

### COLOUR TALKS 2018

Colour talks at the Oslo School of Architecture and Design, 2018 was an initiative to raise students’ awareness on color in architecture, two morning sessions were held at the Oslo School of Architecture and Design in February and March. Here students on their way to studio classes joined in the cantina area to grab a coffee and enjoy two 30- minute informal presentations by high profiled practitioners.

On 7th February, partner at Lund and Slaatto architects, Pål Bjørnstad shared his thoughts on The Andrea Arntzen House, which is an extension of the Oslo Metropolitan University. Characterized by a carefully considered and distinct colour scheme applied to exterior and interior, the Arntzen house demonstrated an approach and a working method rarely present in contemporary practices.

In the second session, on 14th March, interior architect at Snøhetta Heidi Pettersvold, presented examples of her work. As interaction between colour and interior spaces requires translating abstract



colour schemes into real materials and surfaces, too often such translations delimit themselves to aspects of light and ‘true’ materiality in the final result. Clearly the talk inspired students to immerse into and explore the richness of hue and chroma to which the sophisticated work of Heidi Pettersvold served as an appropriate example. In the events approximately 50 students participated in each of the morning sessions.

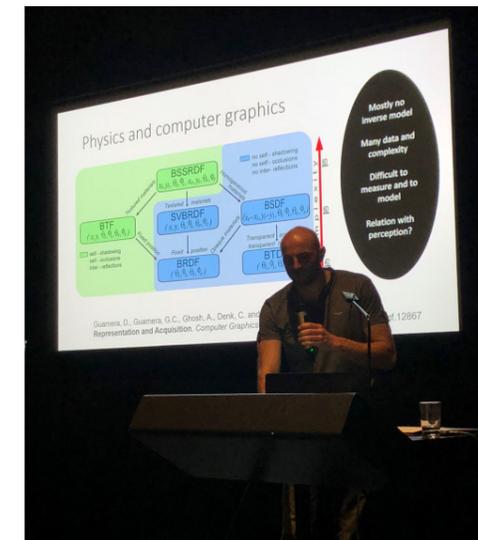
### RESEARCH ACTIVITIES

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.

The 9th The Colour and Visual Computing Symposium 2018 (CVCS 2018) took place here on 19th -20th September 2018.

Keynote speakers: Professor Holly Rushmeier, (Department of Computer Science, Yale University), Associate Professor Marcelo Bertalmio (Information and Communication Technologies, Universitat Pompeu Fabra) and Professor Michael Felsberg (Computer Vision Laboratory, Linköping University).

University of Bergen, Faculty of Art, Music and Design represented by Mette Lorange, professor of Colour, has been engaged in research on the Colours of le Corbusier/Salubra. Exhibition was released at Oslo School of Architecture and Design/ October 15, with linked Seminar on Colour in Architecture October 2018.



// PORTUGAL //

## Associação Portuguesa da Cor APCOR - Portuguese Colour Association

This year was almost completely occupied with the preparation and the organisation of the Interim Meeting – AIC Lisboa 2018, that took place at Calouste Gulbenkian Foundation, between 25 and 29 September.

### PUBLICATIONS

Filipa Santos, Simone Maffei, Verónica Conte and Zélia Simões (editorial board), have been preparing two bilingual publications: "Colour, Urban Space, Architecture and Design" (edited by Maria João Durão and Fernando Moreira da Silva), and "Light, Colour and Health" (edited by Maria João Durão and João Pernão), that will be published by Caleidoscópio in partnership with the Portuguese Colour Association - APCor, CIAUD - Colour and Light Research Group and Colour Lab.



Verónica Conte's book "Colour in Action"

The Members of the Portuguese Colour Association collaborated actively in the organisation of the AIC Lisboa 2018 Conference, where they had 19 papers accepted and presented in oral communications and posters. Also, they continued to be present at the main forums of colour discussion throughout the world:

### ACTIVITIES

Cristina Caramelo Gomes is the coordinator of ColourLab, that is a cluster of academic and professional people, located on Lusíada University of Lisbon, and focused on studying the dimensions of colour in urban environment and the understanding of how this chromatic composition supports a qualified user experience in the public place. In there, she is developing a research project

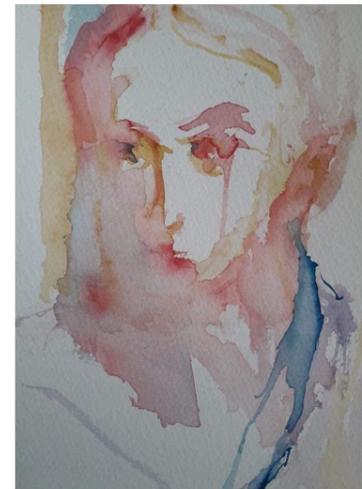
which aims to define guidelines to help professionals to create and maintain chromatic compositions in urban environments to potentiate human sense of comfort and well-being, while also ensuring and preserving the identity of the place.

Verónica Conte, is preparing the publication of a book for artists, designers, architects, urban planners and professionals who worked with participation, painting and public space. "A Cor em Acção" ("Colour in Action") tells us the journey of a research thought participatory or community painting processes. In an innovative critical perspective Verónica Conte, after being seduced by the emerging colour in Buenos Aires, Tirana and Sao Paulo, launches questions about colour in the city, articulated by social concerns and a search for the correspondence of the participatory painting to the fulfilment of fundamental human needs. Personal memories and intimacy records of the experience lived with "ViverCor Corabitando - participatory action", to see and give to see in São Cristóvão, accompany the rigor of the research, revealing the author's dream and utopia, which leaves to the activist reader a path of proposals and recommendations to their own participatory actions.

Rui Barreiros Duarte, had a huge and varied colour activity, of which we can point out the oral presentation of "Authenticity and Sustainability", at BEYOND ALL LIMITS - The International Congress on Sustainability in Architecture, Planning, and Design, in Çankaya University Main Campus, Ankara, October 17 to 19, 2018; a poster presentation "The Expansion of the FDUL Library", at Seminário Internacional Design Research (in) Practice II, Series on Methods (DR\_SoM) 2018,

26-27 maio, Ordem dos Arquitectos, Lisboa, in co-authorship with Ana Paula Pinheiro; and "Arquitetura: do seu Tempo e Lugar" – a 90 90 minutes lecture in the framework of UC Optativa "Imaginários a Perder de Vista" – Lisbon School of Architecture of Lisbon University, 15 de maio de 2018.

Maria Joao Durão, the Honorary President of Portuguese Colour Association, is carrying out the research project "Colour Folds of Pompeii" at 'Laboratório da Cor- School of Architecture' and 'Research Group of Colour and Light' -University of Lisbon's CIAUD. The project encompasses, outdoor



and indoor settings, frescoes, sculptures, mosaic panels, pavements, ceilings, vaults, floorings and walls, clothes, and overall culture and civilisation.

Margarida Gamito, President of Portuguese Colour Association, participated on the 12th World Congress of the RSAI 2018 (Spatial Systems: Social Integration, Regional Development and Sustainability), 29th May/1st June, in Goa/India, with the oral presentation "Urban furniture chromatic planning as an inclusive factor for urban spaces", in collaboration with Joana Sousa.

Luísa Martinez, presented an oral communication 'Colour contrast in packaging and consumer product perception' at TAKE Conference (The International Conference on Theory and Applications in the Knowledge Economy), Poznań

University of Economics and Business, Poznań, Poland, July 11th-13th. She also co-advised two Master theses on colour in consumer behaviour at Nova SBE, Universidade Nova de Lisboa: 'The influence of colour contrast in packaging on consumer behaviour' and 'Complementary colours and consumer behaviour: Emotional affect, attitude, and purchase intention in the context of web banner advertisements'.

João Pernão, our Vice-President, following a strategy to disseminate the themes of Light and Colour in Architecture was invited by the Portuguese Architectural Association to join a conference on



"Urban Space" in Funchal, Madeira, where he did an oral presentation with the title "Light and Colour in the Urban Space: a necessary requalification".

Ana Paula Pinheiro, Presented "Sustainable Architectural Rehabilitation: the Palm tree Manor in Portugal" at BEYOND ALL LIMITS - The International Congress on Sustainability in Architecture, Planning, and Design, in Çankaya University Main Campus, Ankara, October 17-19, 2018 and, in co-authorship with Rui Barreiros Duarte, a poster presentation "The Expansion of the FDUL Library", at Seminário Internacional Design Research (in) Practice II, Series on Methods (DR\_SoM) 2018, 26-27 maio, Ordem dos Arquitectos, Lisboa.

// SLOVENIA //

## Slovenskemu združenju za barve

SSC - Slovenian Society for Colours

An exhibition entitled Inner spaces and periodical model of colours (Notranje pokrajine in periodni model barv) was given by our member and vice-president Vojko Pogačar in the gallery of the National Institute of Chemistry on 15 February - 2 April.

Some of our members joined the scientific symposium organized by the Croatian Colour Society on 21 March (ICD) at the Technical Museum in Zagreb. Alenka Debenjak spoke about Colours in Japanese architecture and Vojko Pogačar presented a lecture entitled What caused the concepts of perspective, colours and the press.

Several members of the Slovenian Society for Colours attended the International Conference on Information and Graphic Arts Technology, which was held on 7-8 June in Ljubljana, Slovenia, and

covered diverse topics, including the reproduction and perception of colour.

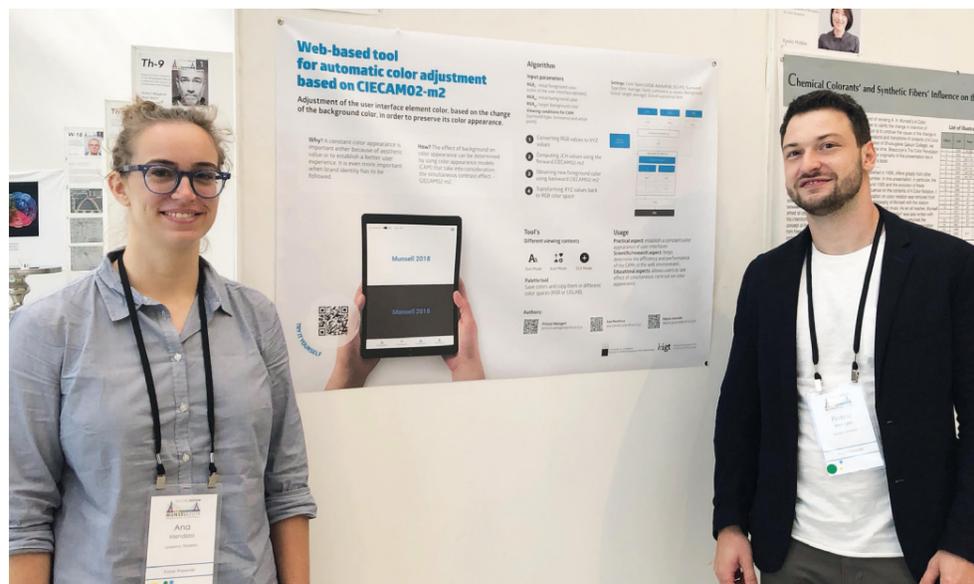
Primož Weingerl, Ana Mendizza and Dejana Javoršek (University of Ljubljana, Faculty of Natural Sciences and Engineering) developed a web-based tool that automatically adjusts the colour of a user interface element, based on the change of background colour, in order to preserve its colour appearance. The tool supports different versions of CIECAM model and allows users to view colours in different preview modes and change parameters of the selected CIECAM model. Besides its primary practical usage, the tool also has an educational purpose, since the user can see how changing the background, affects the colour appearance of an element and how different versions of CIECAM model can be used to adjust the element's colour in order to maintain colour appearance. The tool

was presented at Munsell Centennial Colour Symposium in Boston.

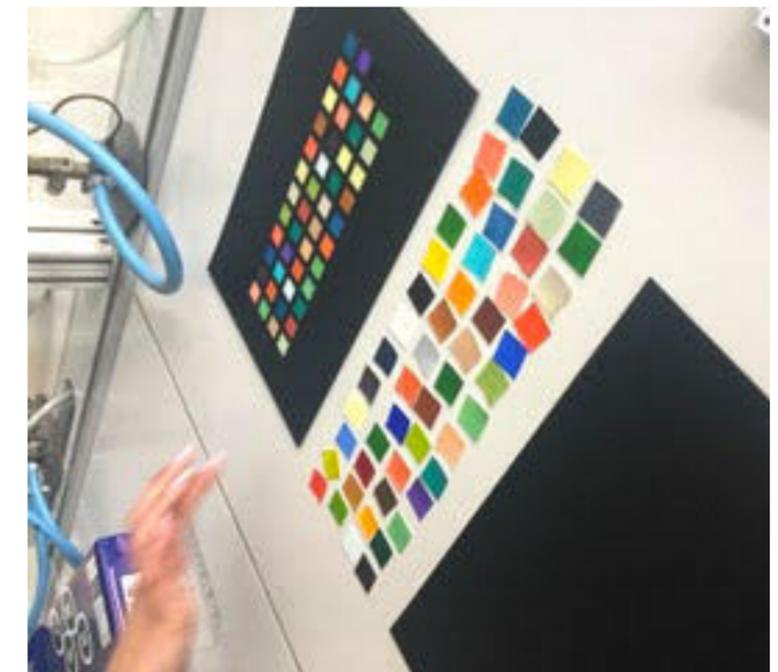
The AIC Conference 2018 in Lisbon was attended by Klementina Možina and Jasmina Weiss. The research about the Impact of Colour Combinations on LCD Display Legibility was presented by Gregor Franken, Maruša Pangerc and Klementina Možina (University of Ljubljana, Faculty of Natural Sciences and Engineering). The aim of this research was to examine the influence of colour combination on the legibility on LCDs to establish which type style is appropriate for a coloured text to be legible. The result of the research showed that the colour combination and typeface design contribute to better legibility. Part of text paragraph with Verdana (left) and Georgia (right) typeface.

In September, Marica Starešinič and Dejana Javoršek (University of Ljubljana, Faculty of Natural Sciences and Engineering) completed a students' project. The production of high-quality reproductions of works of art. To maintain colorimetric accuracy in digitizing works of art, optimal results could be obtained if the colour profile of the scanner was made with a colour plate containing similar colours as the original used by artists. This is difficult because artists use different manufacturers' pigments to achieve different artistic effects. In the

results of the project, we determined the optimal conditions for scanning and printing works of art to achieve optimum reproduction and to choose the most suitable material for the reproduction. Among other things, the result of the project was saving time for the reproduction as well as financial savings, due to the lower consumption of colours and material for the experimental footage itself. Preparation of colour samples.



Ana and Primož at the Munsell Centennial Colour Symposium in Boston.



Colour sample preparation

Sedem mladih mož, ki so bolj spominjali na tolpo malopridnežev kot na skupino delavcev, je pod budnim očesom parkovnega čuvaja popravljalo cesto v narodni park Virunga. Ko jih je čuvaj

Večina ljudi si srečanje z belim morskim volkom v naravi verjetno predstavlja povsem drugače, kot je v resnici videti. Na prvi pogled eden najgrozovitejših plenilcev na planetu sploh

Part of text paragraph with Verdana (left) and Georgia (right) typeface.



// SPAIN //

## Comité del Color Sociedad Española de Óptica

CEC - Color Committee Spanish Optical Society

In March we celebrated the International Color Day in Granada. Prof. Dr.-Ing. Dietrich Paulus, who is the head of the Active Vision Group at University Koblenz-Landau (Germany), opened the 2019 International Colour Day and delivered a lecture entitled "Multispectral Image Processing with applications in Robotics". The event was organized by the Erasmus+ Joint Master Degree "Color in Science and Industry (COSI)" for our local students and the COSI intake 3.

### EVENTS

The Comité del Color maintained its customary activities participating in different events around color and preparing the upcoming events for 2018-19. We met our color colleagues in the conference Reunión Nacional de Óptica (RNO) which was held in Castellon in July 2018. In that event we also celebrated the 50th anniversary of the Spanish Optical Society (SEDOPTICA). Moreover, the PhD student at the CD6-UPC Tommaso Alterini received the 2018 SPIE Student Prize for the best contribution in the field of color, awarded by SPIE (the international society for optics and photonics). The award-winning work is entitled "Hyperspectral retinograph based on LEDs for obtaining images of the eye fundus in the visible and infrared" and was prepared by the following authors: Tommaso Alterini, Fernando Díaz Doutón and Meritxell Vilaseca.

Tommaso Alterini is developing his doctoral thesis within the framework of the European BE-OPTICAL project (Advanced Biomedical Optical Imaging and Data Analysis), Marie Curie Innovative Training Network

### RESEARCH HIGHLIGHTS

In the research section we would like to highlight a new line of research recently launched by the Orion research group of the University of Extremadura (<http://grupoorion.unex.es/orion/index.php>) on visual appearance in virtual reality devices (VR). The main objective of this research line is to determine the influence of the degree of visual fidelity related to several visual parameters on the global perception of the sensation of realism in a scene visualized in a VR environment. In a recently published work, a subjective evaluation was carried out by comparing both environments, real and virtual. The survey contained seven items (color, shading, texture, definition, geometry, chromatic aberration and image pixelation) for five artwork replicas and an additional element related to the feeling of global realism. The results showed that fidelity in color reproduction and the perception of material texture are the main factors related to the improvement of visual fidelity and the sensation of realism. These results initiate a line of work because the visual fidelity associated with VR devices might be further improved including color management of VR devices and spectral calculations in rendered images, but we must consider the current limitations in the computing power of the graphic

.In addition, scientists in Granada debunk the



Tommaso Alterini received the 2018 SPIE Student Prize



Experimental setup, and Real (top right) versus virtual (bottom right) artwork replicas

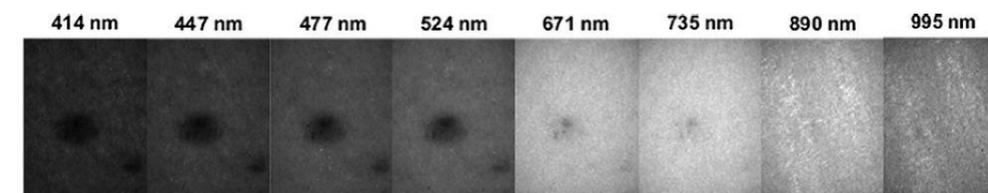
effectiveness of EnChroma glasses for colorblind people. The recent commercialization of the EnChroma® glasses has generated great expectations among the color blind thanks to a strong campaign on social networks and the media. Users of the glasses hoped to see new colors or even correct their color blindness.

One claim on the company's website (at least until October 2017) was that their glasses "are designed to improve the everyday experience of color vision". However, that claim has been recently substituted



The University of Granada research team posing with EnChroma glasses

by a more subtle sentence: "the glasses are an optical assistive device for enhancement of color discrimination in persons with color blindness; they are not a cure for color blindness", pointing out that "results vary depending on the type and extent of color vision deficiency per individual." In

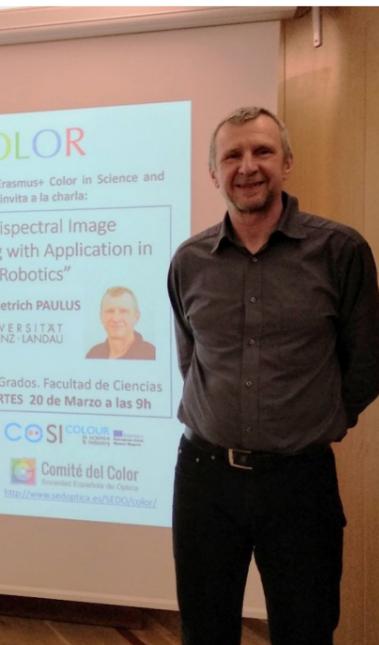


Reflectance images obtained with the system at different wavelengths for a basal cell carcinoma.

an article published in Optics Express, one of the most relevant journals with a great impact in the field of optics, researchers from the University of Granada (UGR) have debunked the effectiveness of these glasses for color vision deficiency (CVD), proving that the EnChroma® glasses don't make color blind people's vision comparable to that of people without color blindness. More information: L. Gómez-Robledo et al, Do EnChroma glasses improve color vision for colorblind subjects, Optics Express (2018). DOI: 10.1364/OE.26.028693 In addition, it is to be highlighted the recent advances in color and multispectral imaging technology to improve the diagnosis of skin cancer. Members of the Committee have recently published scientific articles in this field in indexed Journals: Journal of Biomedical Optics and Sensors.

### UPCOMING EVENTS

In October the new web for the upcoming National Color Conference in September 2019 to be held in Linares (Spain) was opened, and the whole color community is now invited to submit works (full info at <https://www.baobabeventos.com/xiicnc>).



Celebrating the International Color Day at Granada with Prof. Dietrich Paulus



// SWEDEN //

## Svenskt Färgcentrum

SSF - Swedish Colour Centre Foundation

### AWARDED COLOUR & YOUNG COLOUR FORCE

Awarded Colour/Young Colour Force is an ongoing project and the most important one within Swedish Colour Centre Foundation. The project can be divided into the following activities, all to increase knowledge and awareness of the importance of color:

- Teacher Seminar "Young Colour Force". The long-term project of Colour Centre to show the importance of colour education in the teaching of architects and design students.
- We have a network of teachers in almost all of the design- and architects' schools in Sweden with the goal to raise the interest of colour education both for students and teachers. We meet once a year in a colour workshop for inspiration and exchange of experience.

- Awarded Colour is a colour design competition for newly graduated and students of design, architecture, visual communication and art in Sweden. We want to increase the knowledge of colour and make use of colour as an important element in the design process and create multiple tasks for design- and architecture students to highlight the interest and importance of colour.
- Prize-giving ceremony for Awarded Colour during Participation at the Stockholm Furniture & Light Fair. Prizes for 1st, 2nd and 3rd prize winners.
- ICD (International Colour Day) On 21 March, including lecture by the prize-winner of the year.

### AWARDED COLOUR/ PRISAD FÄRG 2018

The theme was "The Blue Colour" and the competition task was to create a colour design inspired by the blue colour, you create a product, a room, an environment, an event, an installation, image or other form of experience where your feel / experience of blue becomes the dominant / given colour. Linus Fridén University of Arts, Crafts and Design, Stockholm was awarded 1st prize for his proposal BLÅ (blo:). The prize ceremony of Prasad Färg 2018 was held at the Stockholm Furniture & Light Fair in February 2019.

### MEMBER'S MEETING

In January we could listen to a very interesting talk by Jan Öqvist, director and Scenographer, about "Artemisia Gentileschi" (1593-1652/3). She was the first female artist from Late Renaissance and Baroque.



The winners of Prasad Färg 2018 in the Stockholm Furniture & Light Fair.



The International Colour Day

In March we celebrated the International Colour Day.

In May we arranged our yearly spring excursion to the Carl Eldh Studio Museum. Carl Eldh (1873-1954) was one of Sweden's most prominent sculptors during the first half of the 20th century. The studio in which he worked and lived for more than three decades is now preserved as a museum.

In September we listened to a presentation by Elisabeth Björkbom titled "Colours, patterns and materials – my way of seeing, working and be inspired by color!".

In October we visited the exhibition "William Morris – More than floral wallpaper" at Millesgården (the Carl and Olga Milles Foundation).

In November our annual meeting took place and we could also listen to a talk about the renovation of the Stockholm Art & Design Museum built 1863 and was designed by Architect Fridrich August Stüler. It was opened after a thorough renovation 2014-2018. The museum has now re-become Sweden's most modern museum with the help of modern technology and innovations while preserving the culture historical values, and we got a very colourful museum.

### ICD 2018

We celebrated the international Colour Day on March 21st with over 70 participants. "The Changing Colours of Chanel's Lipstick Ranges from 1960" was the title of the lecture by our invited guest lecturer Hélène de Clermont-Gallerande, Head of Research at Chanel Parfums Beauté in Paris. She is a passionate colour lover who have developed

no less than 15 make-up patents. She talked about Chanel's lipstick colours and how they have changed depending on fashion and trends until today and showed this with the help of analyses in the NCS system.

Our other invited Guest lecturer was Isabelle Tresse, winner of the prized color 2017, who talked about her contest proposal "As If". The starting point for her project was the experiences and colour memories of her time in India, which are compared and transferred to another physical location in Gothenburg – Kviberg. What happens in the meeting between my memories of Bengaluru India and the physical location of Kviberg, Sweden? What would Kviberg look like if it were, as if, in India?



Carl Eldh Studio Museum



Carl Eldh Studio Museum

// SWITZERLAND //

## pro/colore

Schweizerische Vereinigung für die Farbe

### EVENTS

On 2 March the 27th Ordinary General Assembly of pro/colore took place in the gorgeous former weaving mill of the paint manufacturer kt.COLOR in Uster (CH). Board member proceedings included the official resignations of Hanspeter Alder and Alfred Nick, re-election of Marius Guirard and Ralf Studer, acknowledgement of the on-going assistance of Patrizia Kilburger, and new election of Ulrich Bachmann and Brigitte Pfister. During the first event of the year, the director of kt.COLOR, chemist Katrin Trautwein provided a guided tour through her manufacturing firm of paints and coatings that she founded in 1998. Her products delight architects, designers, painters, artists, and restorers alike. She also conducted a workshop on how to prepare tempera with egg yolk as the binder combined with coloured pigments. Egg tempera is appreciated for its beautiful colours with their remarkable qualities of luminosity and durability.

From 6 to 7 April the second pro/colore event took



Workshop at kt.COLOR, Photo: Marius Guirard

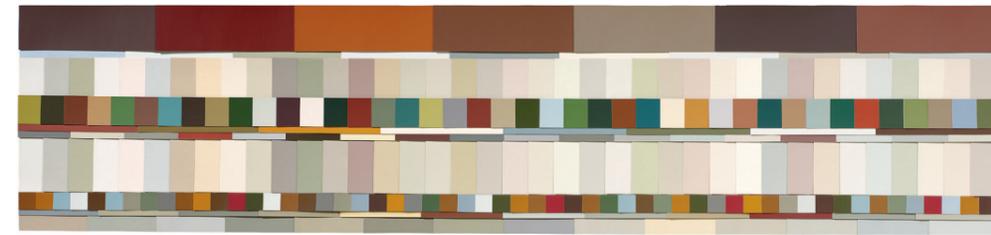
place in Romandy, the French-speaking part of Switzerland, with visits to Le Locle and La Chaux-de-Fonds. Together these two municipalities have been recognized since 2009 as UNESCO World Heritage sites because of the way their urban development and planning are bound up with the needs of the local watchmaking industry. The architectural typology bears witness to the close relationship between the space for living and that of the manufacturing workshops. Participants were provided with invaluable insight into the history and distinctive local variation of the historic style of Art Nouveau. One of the highlights was the visit to Le Corbusier's early masterpiece, the Maison Blanche villa, which was built in 1912 and has been open to the public as a museum since 2006. The firm kt.COLOR participated in the restoration of the interior and exterior polychromy.



Maison Blanche in La Chaux-de-Fonds, Photo: Marius Guirard

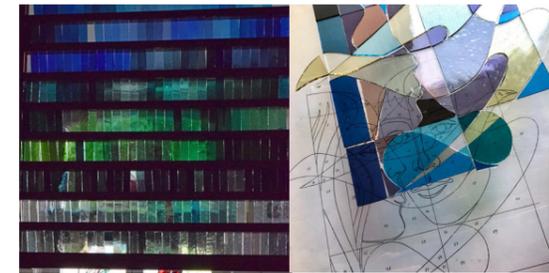
On 15 June pro/colore members met in Steckborn (CH), which is located on the southwestern arm of Lake Constance. The picturesque village is listed in the Inventory of Swiss Heritage Sites Worthy of Protection. The event focused on colour in architecture and preservation. Co-Directors of Haus der Farbe in Zurich Stefanie Wettstein and Marcella Wenger-Di Gabriele as well as Director of

the Monument Preservation Office of the Canton of Thurgau Stephan Kraus explained the particularities of the colour of the historic district. They presented an elaborated colour chart that shows the impact the colours of the shutters have on the overall appearance of the district. They also pointed out how façade colours are noticed when they are disturbing.



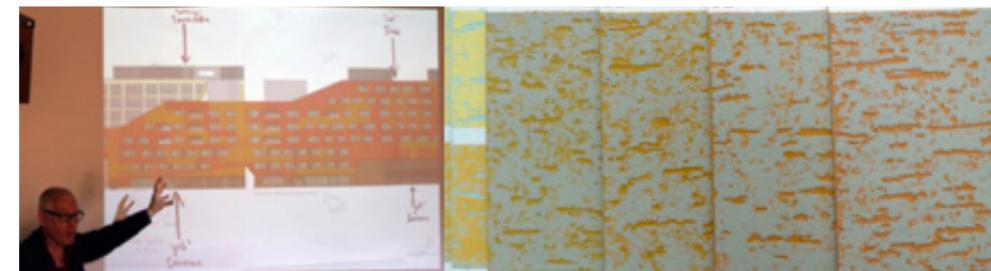
Colour Chart of Steckborn,  
Photo: Haus der Farbe

The fourth pro/colore event on 12 September focused on materials. Taking place at ART IN MARTIN in Bern (CH), the studio is a family tradition and city's oldest glassmaker founded in 1916 and currently operated since 1981 by third-generation glass-artisan and restorer Martin Halter, who presented the history of traditional stain glass crafts and decorative glass art. Afterwards participants visited the trendy Matte quarter where many communication and cultural industry companies are located. One such address is the studio of architects and interior architects artesa whose space is extraordinarily inspiring and multifunctional: a mixture of centre for building materials and design studio.



ART IN MARTIN,  
Photo: Marius Guirard

The fifth meeting on 4 October focused on the interesting colour concept of the building cooperative Kalkbreite in Zurich-Wiedikon, which was completed in 2014. Müller Sigrist Architekten AG in Zurich conceived the residential and commercial complex where 250 inhabitants live in a kind of oasis in the middle of the urban hustle and bustle. Artist Jörg Niederberger created the colours of the façades and interiors, for which he was acknowledged with the Arc Award (Special Award for Colour Concepts). As part of a presentation, he provided in-depth insight into his creative method and the diversity of his research projects on colour and material.



Jörg Niederberger presents his colour  
concept for Kalkbreite,  
Photo: Marius Guirard and Jörg  
Niederberger

The sixth meeting on 8 November dealt with colour and light. Marcus Pericin, Co-Director of the Colour-Light Center of the Zurich University of the Arts (ZHdK) showed current experimental work by students about light and colour. Outlining current research topics at the Center, he also presented fascinating demonstrations of colour and light experiments. The show conveyed the broad range of possibilities to be created by the interaction of colour and light. It was an inspiring incentive to continue the pursuit of investigating this exciting realm.



Marcus Pericin in ZHdK  
Colour-Light Center,  
Photo: Marius Guirard



// TAIWAN //

# 中華色彩學會

CAT - Color Association of Taiwan

## REVIEW

Color Association of Taiwan (CAT) had a wonderful year in 2018. We continuously collaborated with government and industrial partners to promote the very first official certification for recognizing color as a specialty in current professional assessment system. The teaching materials for color science, including book and the color chips notated by CIELAB values, had been successfully published. Around 900 examinees took part in the color profession exam with around 30% examinees obtained the certificate.

Besides the abundant preparation works for color profession certification, we held an annual member gathering and a conference addressing the study field of color science. We also celebrated the International Color Day on March 21.

The nomination process for CAT fellowship will be started from 2019 to recognize members who may have made advances in color science through original research and publication, or made significant innovative contributions in the application of color science.

Sep. 3, 2018. The expert meeting on preparing the iPAS Advanced Certification of Color Planning and Management. The committee members were from industry, academics and the ministry of economics in Taiwan.

In October CAT members attended the AIC 2018 in Lisbon, Portugal.

Finally, two books were published to promote the certification for recognizing color as a specialty in current professional assessment system.



The color chips notated by CIELAB values was published to assist student to understand the color attributes



AIC 2018 in Lisbon, AIC President TR Lee opening conference



International Color Day was celebrated at National Taipei University of Technology



AIC 2018 in Lisbon, Portugal. Taiwan Ambassador to Portugal (left) and AIC President TR Lee (right)



CAT celebrated International Color Day



The iPAS Advanced Certification of Color Planning and Management meeting



Books published in 2018



Colour Group of Thailand

// THAILAND //

## The Color Group of Thailand CGT

### REVIEW

The 4th ACA Asia Color Association Conference was held on 5-8 December 2018 in Chiang Mai, a northern city of Thailand on the theme "Inspiration in Color" as the conference logo shows.



The conference was organized by Color Research Center of Rajamangala University of Technology Thanyaburi (RMUTT) with Dr Uravis Tangkijviwat as the chairperson of the steering committee. A total of 156 participants attended at the conference and 108 contributed papers were presented by

delegates from China, Indonesia, Japan, Taiwan, and Thailand. A more detailed report was given in the February issue of Color Research and Application.

At the 4th ACA conference 52 papers came from Thailand. These show that the study of color science and design is certainly making progress in Thailand in these years.

The next ACA will be held at Meijo University, Nagoya, Japan on 29 November - 2 December 2019 and the ACA flag was passed to Dr. Kawasumi from staffs of Color Research Center, RMUTT. You may see some more photographs of ACA2018 conference at <https://www.facebook.com/pg/ACA2018/photos/>.

The Color Research Center has been active throughout the year under the directorship of



Attendees at the opening ceremony of 4th ACA - Asia Color Association Conference

Assistant Prof. Dr. Chanprapha Phuangsuan for research and education. Some scientific papers appeared on Color Research and Application and two PhD students are studying under Prof. Mitsuo Ikeda.

It is worthwhile to mention that 7 staffs and 2 students of RMUTT attended and presented papers at an international session in the annual conference of Color Science Association of Japan held in Osaka City University on 2-3 June 2018.

The annual event of tutorial lecture trip organized by CRC to ASEAN countries was not conducted this year because staffs of CRC were occupied for preparation for the 4th ACA conference. But a past tutorial trip to Indonesia came to fruition at the 4th ACA as one keynote speaker was Dr Adi of Gadjah Mada University of Indonesia, who spoke on "The

importance of color in the field of agroindustry". He showed an intention to invite the 6th ACA conference to his country. The present president of AIC, Prof. Tien-Rein Lee was the invited speaker in the 4th ACA conference, who gave lecture "Color orders and orders of life". The ACA conference will not take place in the year when the AIC holds conference in Asia, thus ACA cooperates with AIC.



Conference excursion



At the closing ceremony the ACA flag was passed to Dr. Kawasumi from staffs of Color Research Center, RMUTT

// UNITED STATES //

## Inter-Society Color Council ISCC

### MEETINGS

The 2018 ISCC Annual Meeting was the Joint ISCC-AIC Munsell Centennial Color Symposium held in Boston, Massachusetts from June 10-15, 2018. There will be a separate article summarizing the Symposium in this AIC Annual Review.

### PUBLICATIONS

The ISCC News was published quarterly in 2018. Dr. Michael Brill's Hue Angle columns featured such fascinating topics as "Psychology and the Big Adventure of the Elastic Yardstick" written by Keith K. Niall, "The YouTube Theory of Colour Vision" written by David J. C. Briggs, and "We'll Always Have Parrots" and "Visualizing Four-Dimensional Colorimetry" both by Mike Brill. Carl Jennings from the University of Hawai'i continued his column entitled "Refractions: Seemingly Random



January webinar speaker, Roy Berns, with his new book and hard at work measuring a painting. MarkNickerson

Musings on Color" to pique our curiosity on such color topics as "The Seurat Delusion", "All the Colors We Cannot See", "Do You Dream in Color?" and "The Dark Spectrum". We also enjoy an entry from Ellen Carter who shares "In This Issue" for 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. The summer issue was a special one detailing the very successful Joint ISCC-AIC Munsell Centennial Color Symposium. This 44-page special issue is a good reference summarizing the Munsell 2018 event. ISCC is pleased to offer our entire newsletter archive online at <https://iscc.org/Newsletter> from the years 1933 - 2017.

### WEBINARS

ISCC's very successful online seminar series continued in 2018. It began in January with a webinar given by Professor Roy Berns from the Munsell Color Science Lab at Rochester Institute of Technology. His presentation was entitled "Color Science and the Visual Arts" summarizing details from his new book of the same name. Participants enjoyed learning how color science can be used in the understanding, reproduction and conservation of artwork. The second webinar (February 2018) was given by John Seymour who discussed "Albert Munsell, the Father of Color Science?" This was a humorous yet educational presentation on where or not Albert Munsell deserves this accolade. Then on International Colour Day, March 21, 2018, we heard from David Briggs giving a webinar entitled "The New Anatomy of Colour". Please see the information on the 2018 International Colour Day in this AIC Annual Review for more details on this webinar.

The fourth webinar was given in April by Paul



ISCC President, Jerry Dimas (left) presenting Andrew Stockman with Macbeth Award and Rhea Eskew, who gave citation (right)

Centore. The title of Paul's presentation was "A Practical Introduction to the Munsell System for Artists". The May webinar, "Psychological Color Temperature and Color Harmony", was given by Lori Sawaya. The September webinar was given by Dr. Mark D. Fairchild from the Munsell Color Science Lab at the Rochester Institute of Technology. By popular request, ISCC repeated the tutorial, "Color Appearance, Color Order and Other Color Systems", that Mark gave at the Munsell Centennial Color Symposium. Our final online seminar presentation was the Macbeth Award Presentation Webinar given on October 16, 2018 by Professor Andrew Stockman, the ISCC 2018 Macbeth Award winner. The title of Andrew's presentation was "Cone Fundamentals, Color Matching Functions, Luminous Efficiency and Individual Differences". Andrew described the monumental color vision work for which he was recognized with the 2018 ISCC Macbeth Award. The year 2018 marked a record seven webinars for ISCC. All webinars were very successful attracting attendees from academia and industry, as well as across the United States, Europe, and Asia. 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. 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.

### AWARDS

The 2018 ISCC Nickerson Service Award was presented to Dr. Mark Fairchild for his long term service to ISCC. Mark has many contributions across many arenas, including Technical Papers Chair for the Munsell Centennial Color Symposium, Board of Directors member from 1995-1998, Past Chair of



ISCC President, Jerry Dimas (left) presenting Mark Fairchild with Nickerson Service Award and Dave Wyble, who gave citation (right)

Interest Groups I and II, General Chair of the 1998 Annual Meeting in Baltimore, Program Committee member for the 2000 Panchromatic Conference and author of the long-standing newsletter column, Metameric Blacks (2011-2015).

The Macbeth Award, for one or more recent outstanding contributions in the field of color was presented to Dr. Andrew Stockman in June at the Munsell 2018 Symposium. Due to the efforts of Dr. Stockman, it is now possible to predict color matches for individuals (according to their age) and for objects of any given size in the visual field—not just for one or two Standard Observers. The contribution to be recognized comprises the "Stockman and Sharpe" cone spectral sensitivities and the related luminous efficiency functions, all based on measurement in observers of known photopigment opsin genotype. Andrew's cone fundamentals come with a new photopic luminosity function. They have been adopted by the CIE along with new XYZ functions based upon them, as the 'physiologically-relevant' international standards for color definition and color measurement. Most modern work on color vision feature these functions and they will be a part of Andrew Stockman's legacy. ISCC was proud to present the 2018 Macbeth Award to Dr. Andrew Stockman!



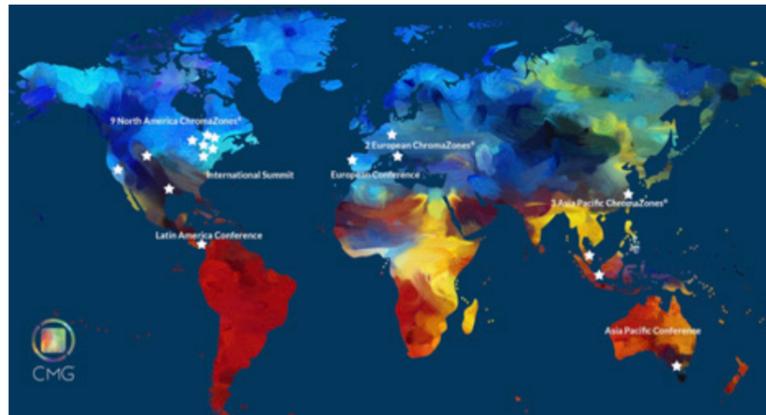


// UNITED STATES //

## Color Marketing Group CMG

### BACKGROUND

Founded in 1962, Color Marketing Group® (CMG), is the premier international association for color design professionals. For over 50 years, CMG has provided color forecast information based on the contributions of color design professionals across industries. Our mission is to create color forecast information for professionals who design and market with color. Each year CMG members, representing a broad spectrum of designers, marketers, color scientists, consultants, educators, and artists, analyze thousands of colors, attend numerous ChromaZone® Color Forecasting Workshops and regional Conferences, and travel the globe in search of the next color directions. In 2018, North American ChromaZones® were held in California, Ohio, Colorado, Illinois, New Jersey, Texas, Pennsylvania, North Carolina, and Canada. International events were held in China, Germany, Thailand, Singapore, and Italy. The information gathered during these global color forecasting events (<https://colormarketing.org/events/>) becomes part of the global World Color Forecast™ revealed at the annual International Summit (<https://colormarketing.org/event/international-summit/>) each November.



### EVENTS

At CMG events WE COME TO LIFE IN COLOR!, our theme selected for this year's 2018 International Summit. It is color that reunites us, revives us, makes us breathe. It is in color that we crave.

Philadelphia was a beautiful and stimulating location for this year's CMG International Summit. Our first International President, Judith van Vliet, Clariant ColorWorks Designer selected a celebration of daily pleasures, "Hygge" (Pronounced "hoo-gah), Danish, referring to "a form of everyday togetherness", "a pleasant and highly valued everyday experience of safety, equality, personal wholeness and a spontaneous social flow".

- Color Marketing Group introduced the organizations' 2020+ World Color Forecast™ Key Colors at the 2018 International Summit in Philadelphia, PA.
- CMG 2020+ Asia Pacific Forecast Key Color – Seed of Life
- CMG 2020+ European Forecast Key Color – Feel Real
- CMG 2020+ North American Forecast Key Color – Electrum
- CMG 2020+ Latin American Forecast Key Color – Ver-de-verdad

This year during our International Summit held our new, dynamic, and interactive CMG Color Power training so our members could extend and strengthen their color knowledge and career.

### FUTURE THINKING WORKSHOP

We also held our Future Thinking workshop that focuses on the trend forecasting process. What will be the big ideas driving our design decisions in five years? How about seven, or even ten years from now? This workshop inspired us to think well beyond 2020 and travel farther into the future. Presenters included three CMG trend-watching experts, who shared their experiences in researching and forecasting trends, and how they analyze and apply them in their designs.



### COLOR SUMMIT

Our Summit Color Applications Workshop utilizes CMG's World Color Forecast™. Attendees experienced how the Forecast is created and how to apply it directly to their industry-specific track of Colors in Contract, Color Validation, Color Combinations, Colors in Home, or CMF (Color, Materials & Finishes). Attendees also connected with other outstanding color professionals and learned why this dynamic global Association with over 50 years experience in forecasting color directions continues to create accurate and relevant color and trend forecast information.





// UNITED STATES //

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

### REVIEW

This year we elected to have our annual meeting during the Munsell 2018 ISCC/AIC conference in Boston, MA. Those who attended the conference were both inspired and humbled by the range and the caliber of presentations on so many aspects of the phenomenon we call 'color'. Later in the week, over a boxed lunch, Amy Woolf of Amy Woolf Color Consulting presented to our membership on lessons learned about running a color design business. Both her practical tips and words of wisdom were instructive and helpful to members interested in architectural consulting. At the conference dinner, Amy then wowed attendees with her creative table design which included floral arrangements made with paint chip strips. We were also pleased to see our very own Lori Sawaya sharing her perspective



during the breakout session on Color Education. Overall, the experience was so positive that IACC-NA and ISCC leadership determined to hold a joint meeting in 2020.

### MEMBER NEWS

In other member news:

- President Jean Hoskin joined the Board of Directors for the Inter-Society Color Council. During the year, she also traveled to inspirational museum exhibits including Saturated: The Allure and Science of Color at the Cooper Hewitt Museum, Hilma af Klint: Painting for the Future at the Guggenheim, and Yayoi Kusama: Infinity Mirrors at the Cleveland Museum of Art. She was in attendance when the new format AICCE seminars were presented in Burlington VT. Finally, in addition to the AIC/Munsell conference, she attended the conferences for the Textile Society of America in Vancouver, BC and Digital Textile Printing in Raleigh, NC. She has also enjoyed participating in several color and painting classes at the local art center and has joined two community art groups.
- Ellen Divers, VP, began testing subjects for her research on color and plans to present findings in 2019. Her interest in the how color is used in the built environment led her to complete a B.S. in Interior Design in December 2018.
- Lori Sawaya continues to teach her Camp Chroma course and presented a webinar entitled "Psychological Color Temperature and Color Harmony" for Inter-Society Color Council members.
- We look forward to the color adventures of 2019!

# 2018 STUDENT AWARDS

The first AIC Student Paper Awards presented during AIC 2018 in Lisbon, Portugal.

The goal of this scheme is to encourage students to present their work at AIC meetings and to benefit from interaction with the international colour community. Papers had to be substantially related to the subject of colour across any discipline or mix of disciplines. Both research-based and practice-based work were considered.

The AIC Student Paper Awards are for final-year undergraduates (bachelor degrees) and postgraduates (any stages of masters and doctoral degrees). They will run every two years in conjunction with the AIC Interim Meetings.

Submissions for the Awards were of a very high standard and were 27 in total from 15 countries which augers well for the future of these Awards and the AIC.

Three prizes, agreed by the AIC Student Paper Awards Panel, comprising Vien Cheung Chair of Awards Panel, Robert Hirschler Chair of the AIC Study Group for Education and Nick Harkness immediate Past President of the AIC, were awarded to students on the basis of the quality of their full papers published in the AIC proceedings.

All papers were reviewed by an international panel of reviewers covering all relevant academic disciplines. The six finalists including the three Awards winners were announced and presented at AIC 2018 by AIC President Professor Tien Rein Lee.

There are financial prizes funded by the AIC for the first three papers i.e. 1st AUD1,000; 2nd AUD600; and 3rd AUD400 for the awarded papers. All six finalists were invited to attend the conference banquet as guests of the AIC. Their extended papers which encompass a wide range of colour research are published in the special issue of JAIC (Volume 23).

I congratulate all winners and participants on the high standard of their submissions and encourage all young colour researchers to participate in these Awards in the future.

*Nick Harkness*

Past President of the AIC (2016-2017)



From left to right; Prof Sari Yamamoto (the awardee Yi Zhuang's supervisor received the certificate on behalf of Yi), Giorgia Chinazzo, Aicha K. Diakite, Gyeonghwa Lee, Joana Saes, Saara Pyykkö and Prof Tien-Rein Lee

### FIRST PRIZE

Title: *Creating a chromatic atmosphere: The colour design process of the new Koivusaari neighbourhood in Helsinki*

Author: Saara Pyykkö (Department of Architecture, Aalto University, Finland)

Topic: This study explores a colour design project of a new neighbourhood, Koivusaari, in Helsinki, Finland.

### SECOND PRIZE

Title: *Colour applied to TEACCH and Snoezelen rooms and therapies*

Author: Joana Saes (Faculdade de Arquitectura, Universidade de Lisboa, CIAUD – Laboratório da Cor, Lisboa, Portugal)

Topic: How can colour be used in therapy rooms and in therapies?

### THIRD PRIZE

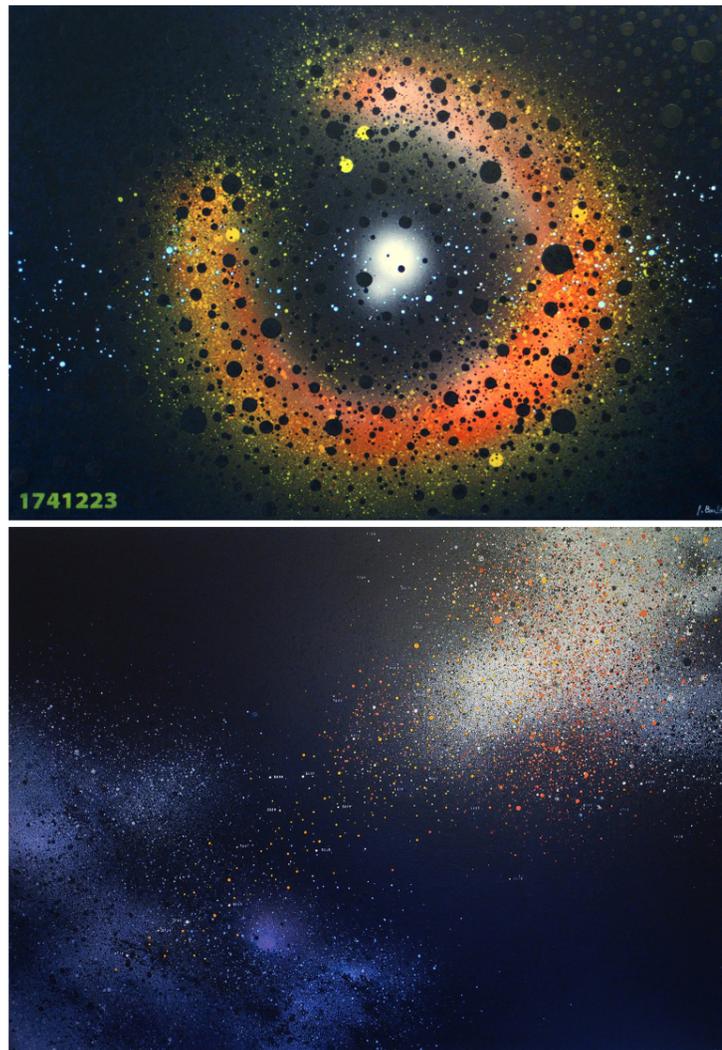
Title: *Colour communication challenges: Exploring disciplinary divides*

Author (with an asterisk): Gyeonghwa Lee\*, Stephen Westland and Vien Cheung (School of Design, University of Leeds, Leeds, UK)

Topic: Experiment to describe the appearance of colour samples.

### RUNNER-UP

Runner-up prizes were also presented to Yi Zhuang\* and Sari Yamamoto (Faculty of Art and Design, University of Tsukuba, Japan), Giorgia Chinazzo\* Jan Wienold and Marilyne Andersen (Laboratory of Integrated Performance in Design, School of Architecture, Civil and Environmental Engineering and Aicha K. Diakite\* and Martine Knoop (Technische Universität Berlin, Berlin, Germany)



*SG AD has  
43 members from  
20 countries*

*João Brehm (Portugal), painter  
and cinematographer, works with  
colours and pigments to create his  
paintings of imaginary universes*

# SG AD

## ARTS AND DESIGN

Chairman: Maria João Durão (Portugal)



*Logo designed by Helena Soares*

The AIC Study Group on Arts and Design held its inaugural meeting at AIC 2018 in Lisbon on 27th September 2018. Participants introduced themselves and their research interests in a room with a view to the gardens of the Fundação Calouste Gulbenkian.

Presently, the SG AD has 43 members from 20 countries: Australia, Austria, Brazil, Chile, Egypt, Finland, Germany, Italy, Iran, Israel, Japan, Mexico, Portugal, Singapore, Slovenia, Sweden, Switzerland, Turkey, UK and the USA, that undertake research in a broad set of topics presented during the conference.

Painter and keynote speaker Luísa Arruda (Portugal) presented her research on the historical hospitals of Cascais: Hospital de Sant'Ana in Parede and Hospital Ortopédico in Alcoitão; Joana Saes (Portugal), who received the first runner-up prize of the AIC Student Paper Award, explained how colour impacts therapies in TEACCH and Snoezelen rooms, as part of her Ph.D. in Design; Filipa Santos (Portugal) used the interiors of Gelre Hospital in Zutphen as case study for conceptualizing a colour and light model, as did Zélia Simões (Portugal) with industrial environments in search for comfort and wellbeing.

Keynote speaker João Brehm (Portugal), painter and cinematographer, took us on a journey through a complex set of experiments with colours and pigments to create his paintings of imaginary universes; Verónica Conte (Portugal) presented actions that include participatory paintings on residential façades; Ana Pais Oliveira (Portugal) addressed chromophobia in contemporary artistic practices; Renata Pompas (Italy) adopted the didactics of colour to speak about contemporary art; Elodie Chandernagor (Singapore) raised issues concerning space and different uses of colours in Western Visual Art; Susana Ribeiro (Portugal) related painting to sensory experience on primary blue; Sharon Avital (Israel) on the relations between colour, geometry, and consciousness; Mahshid Baniani (Iran) on colour in Ancient Persian rituals; and Sarah Frances Dias and Maria João Durão (Portugal) on the significance of colour in Islamic Art and Architecture.

Colour and emotions ran across different areas: Wen-Yuan Lee and Rwei-Ju Hung (Taiwan) showed how texture and gloss influence colour emotions and colour harmony; Simone Maffei-Simacek (Brazil) used a case-study to show primary colours as emotional signs for visual design; Cristina Salvador (Portugal) explored emotion and sustainability in the context of children's furniture.

Pousi Swailem (Egypt) personalised colour palettes in home furnishings, and Barbara Matusiak (Norway) addressed a colour rendering method of window glass. Eva-Lena Bäckström (Sweden) showed how to create unique colour choices for products; Luísa Martinez et al. (Portugal) with colour contrast in packaging and consumer product perception.

Designer Alessandra Cirafici (Italy) analysed colour and augmented reality in museum fruition; Yukino Shimizu, Kanako Hirano and Nozomu Yoshizawa (Japan) presented a study on lighting control strategies by combining daylight with white LEDs in museums; Helena Soares (Portugal) considered the scenic space as mean of urban regeneration, using light, colour and (im)materialities, while Elif Ensari and Saadet Akbay (Turkey) explored the effects of façade colour on walking preferences.

Textile and fashion colours were approached from different perspectives: spotting the aesthetically dynamic properties of naturally dyed and finished textiles, by Isabel Rosa Müggler, Cornelia Gassler (Switzerland) or developing methodologies for designers engaging with digital colour inkjet printing in textile design by Becky Gooby (UK). A comparison of fashion colours between China and the UK was established by Jie Xu and Xueqing Zhang (China); So-Young Lee and Youn-Jin Lee (Republic of Korea) proposed a colour fashion material pattern, and Ichiro Katayama et al. (Japan) focused on the tooth crown colours of people in fashion magazines.

Gregor Franken, Maruša Panger, Klementina Možina (Slovenia) showed the impact of colour combinations on LCD display legibility; Nuno Alão (Portugal), First Prize for Best Poster at AIC2018,

explored visual images and information units; Natacha LeDuff (Germany) presented an approach to colour mediation; Isabella Otto, Alice Plutino, Matteo Lanaro and Alessandro Rizzi (Italy) presented a study on chromatic variation of movies, and Milena Leite Paiva (Brazil), colours in the Brazilian miniseries Suburbia.

Lisbon was also the subject of colour studies by Aléxia Brasil (Brazil) and Ana Guerreiro (Portugal) Lisbon: a colour experience from sketch to illustration; Elisa Cordero – Jahr's (Chile) "travel journal (in colours) of Lisbon city" and Annamaria di Cara (Australia) based her research on sensory experience contours of the natural and built environment, by comparing Lisbon and Sydney.





**SG CE has  
210 members from  
39 countries**

Boston SGCE meeting

# SG CE COLOUR EDUCATION

Chairman: Robert Hirschler (Hungary and Brazil)

Co Chair: Maggie Maggio (USA)

2018 was a busy, successful year for the SG CE. Members were active at both important AIC events of the year (Boston and Lisbon), and also in contributing to the special issue of JAIC on colour education.

In the General Session of the Munsell Centennial Color Symposium in Boston we heard two great presentations on colour education by David Briggs (Where is Color Education Now? Color and Technology) and by Roy Osborne (Historical Survey of Teaching Color in Art and Design); and SG CE members presented interesting posters on this subject; many of them have since been published in Color Research and Application.

At the Symposium we had an interesting panel discussion on colour education organised and moderated by Robert Hirschler, SG Chair and Maggie Maggio, SG Co-Chair with participation of a group of invited experts on the subject. The main discussion points were:

- What is colour education?
- What is colour theory?
- What is STEAM?
- What is at the cutting edge of colour education?
- How can we work together to promote colour literacy in the 21st century?

Panel discussion on colour education at the Munsell Centennial Color Symposium in Boston. Panellists (from left to right) Maggie Maggio, Mark Fairchild, Lori A. Sawaya, Paul Green-Armytage; Emily Barnett; Robert Hirschler and Luanne Stovall. Also participated in the panel discussion Harald Arnkil and Sarah Sands (unfortunately not on the picture).

Also at the Boston Symposium, we had a SG meeting on the theme of "How much colour science is not too much". After the introduction by the SG Chair, SG members Harald Arnkil, Tracy Holmes, M. Ronnier Luo, Esther Hagenlocher and Nicoline Kinch gave presentations explaining their view on the subject. SG CE meeting at the Munsell Centennial Color Symposium in Boston.

At the AIC Interim Meeting in Lisbon we had the second SG meeting of the year, the main theme being Colour Education for Children and Laypersons. The idea was that we should share thoughts on what to tell about colour to people who are not (yet) actively involved in dealing with it in some professional way. Does the average person need to know anything about colours? Is it part of the general knowledge an educated person should know? Do children need to be educated in seeing and in using colours? Paula Alessi kindly accepted to chair the meeting together with Maggie Maggio, Co-Chair of the SG CE, and we had four SG members giving presentations on the topic: Nicoline Kinch, Kelson Araujo, Natacha Le Duff and Ana Rezende Galeotti. Glenn McArthur and Osvaldo Da Pos could not be present, but they sent in their contributions in writing. The presentations were followed by a lively discussion.

After the Boston meeting SG Chair Robert Hirschler was invited to guest edit a special issue of JAIC on colour education and SG members responded by submitting articles. The special issue has already been published and it is available on the AIC web site.

The next SG CE meeting is planned at the AIC Midterm Meeting to be held in Buenos Aires in October 2019.



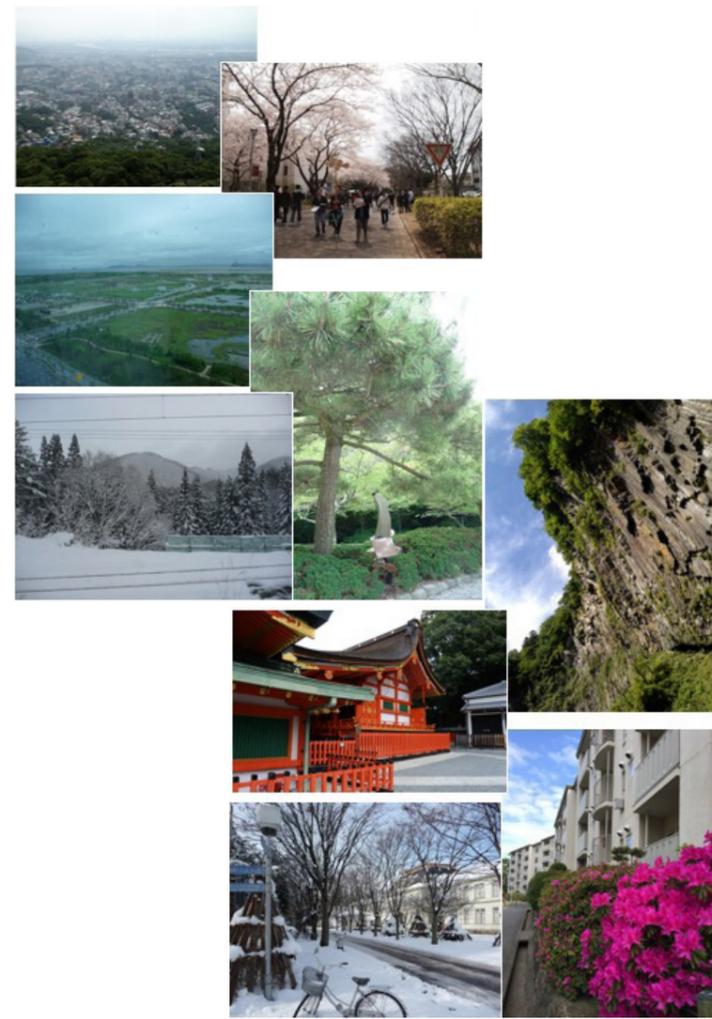
Munsell 2018 Panel on Color Education



SGCE meeting at the AIC Interim Meeting in Lisbon. SG member Kelson Araujo gave a presentation on "Free Learning Objects on Colour Education for Children and Laypersons"



SG member Milena Quattrer presenting her poster on "Exercises of chromatic investigation and analysis on colour education" at the Munsell Centennial Color Symposium in Boston.



SG CVP has  
90 members from  
16 countries

# SG CVP

## COLOR VISION AND PSYCHOPHYSICS

Chairman: Katsunori Okajima (Japan)

Secretary: Manuel Melgosa (Spain)

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. Currently, the number of members of the SG is 90 from 16 countries.

We are planning to hold our next meeting at AIC 2020. Currently we are hosting the SG homepage using the following Internet site: "http://www.okajima-lab.ynu.ac.jp/CVPSG/".

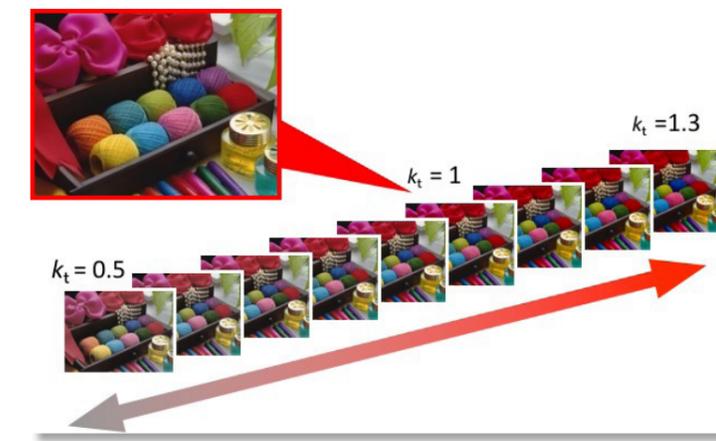
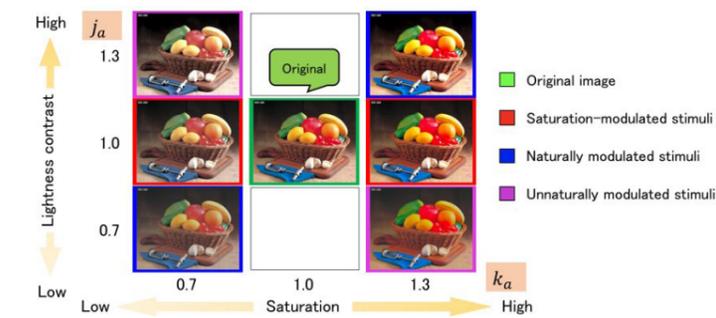
SG members published/presented some related papers to the SG CVP's scope. Dr. Yoko Mizokami and her colleague presented the paper entitled "Effect of Natural Combination of Saturation and Lightness Contrast on Colorfulness Adaptation" (Masumitsu, T. and Mizokami, Y., Proc. 4th Asia Color Association Conference, 278-282, 2018). They investigated how colorfulness adaptation on images was influenced

by the naturalistic change in the color distribution of images. It has been shown that we can adapt to the colorfulness of images and the adaptation is stronger for natural images than for unnatural stimuli (Mizokami et al. 2012). It was also reported that an image appeared more natural when the luminance contrast of the image was increased according to the increase of saturation of the image than when only saturation was changed, and vice versa (Nakano et al. 2009). This perceived difference in naturalness may also affect colorfulness adaptation. In this research, they examined whether the combination of saturation and lightness contrast in adaptation images influenced the colorfulness perception. In the experiment, three types of modulated images were used as adaptation stimuli: images which only their saturation changed, images which their saturation and lightness contrast changed naturally and unnaturally. Test stimulus for colorfulness judgment was an image which only its saturation was changed. Observers judged whether the test image appeared "natural" or "too colorful" after adapted to images with certain saturation level chosen from one of the adaptation stimuli groups. Our results showed that the border of "natural" and "too colorful" appearance became higher when observers adapted to higher saturation, and vice versa. This colorfulness adaptation was stronger when adapting to saturation-modulated stimuli and naturally modulated stimuli, and weaker when adapting to unnaturally modulated stimuli. They also showed that the subjective evaluation of the naturalness was high for adaptation images which caused high adaptation effect. These results suggest that the effect of colorfulness adaptation to the images is affected by the naturalness of the images due to saturation and lightness contrast modulation.

Li et al. (Color Res. Appl. 43(5), 633-642, 2018) have reported failures of the symmetry and transitivity properties in the use of one-step chromatic adaptation models that avoid the use of the intermediate CIE illuminant E, when the degree of adaptation  $D$  is different than 1.0 (incomplete adaptation). Because this problem affects the right use of the CIECAM02 and CAT16 (Li et al., Color Res. Appl. 42(6), 703-718, 2017) models, these authors propose the mandatory use of two-step chromatic adaptation models in all future applications involving incomplete adaptations. The CAT16 model is embedded in the new color appearance model CAM16, and, currently, CIE JTC 10 (D8/D1) is working on the potential recommendation of a

new color appearance model based on CAM16, in order to replace the CIECAM02 model for color management systems.

The fixed-point iteration method currently recommended by the CIE mesopic photometry system MES2 (CIE 191:2010) has been recently revisited (Gao et al., Opt. Express 26, 31351-31362, 2018). This method allows the computation of the adaptation coefficient  $m$  and the mesopic luminance in an iterative way. In a previous paper (Gao et al., Opt. Express 25, 18365-18377, 2017), the same authors proposed some computational alternatives to the current CIE official method. Now they indicate that the CIE fixed-point iteration method may be not convergent for large values of the  $S/P$  ratio, and prove that the ratio  $S/P$  smaller than a constant ( $\approx 18.1834$ ) is a sufficient condition for the convergence of the CIE fixed-point iteration method. In addition, a new initial guess strategy, achieving faster convergence than CIE method, is also proposed.





Participants of the SG ECD meeting at AIC 2018

**New SG ECD members joining in 2018 included:**

Sharyn Adler Gitalis (CA)  
 Carlos Alho (PT)  
 Alex Booker (NO)  
 Céline Caumon (FR)  
 Annamaria di Cara (AU)  
 Sibel Ertez Ural (TR)  
 Lourdes García Ureña (ES)  
 Martinia Ira Glogar (HR)  
 Jeannette Hanenburg (BE)  
 Anna Kmita (PL)  
 Xuechang Leng (GB)  
 Mette L'Orange (NO)  
 Glenn McArthur (CA)  
 Inez Michiels (BE)  
 Xavière Ollier (FR)  
 Roy Osborne (GB)  
 Ana Paula Pinheiro (PT)  
 Deidre Tomlinson (CA)  
 Felipa Santos (PT)  
 Pousi Swailem (EG)  
 Kim van Savooyen (NL)

and as an honorary member  
 Jean-Philippe Lenclos (FR)



AIC 2018 Speakers at the SG ECD meeting (from left to right): Klaus Richter, Cath Carver, Fiona McLachlan, Zena O'Connor, and the co-chairs

# SG ECD

## ENVIRONMENTAL COLOUR DESIGN

Co-Chair: Verena M. Schindler (Switzerland)

Co-Chair: Yulia A. Griber (Russia)

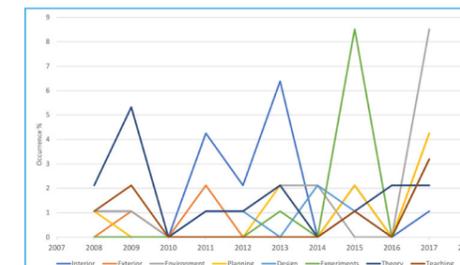
[http://www.ad-chroma.com/index.php?article\\_id=1&clang=2](http://www.ad-chroma.com/index.php?article_id=1&clang=2)



2018 was a busy, productive, and particularly eventful year for the AIC Study Group on Environmental Colour Design (SG ECD). On 15 June 2018, the SG ECD led a colloquium during the Munsell Centennial Celebration Symposium held at the Massachusetts College of Art and Design in Boston, MA (US). This SG ECD event was a wonderful opportunity for people from all over the world to meet and share knowledge about American colour pioneer Albert H. Munsell, environmental colour, and the language of fractals and patterns. The colloquium explored how the Munsell colour order system has influenced and supported the development of environmental colour research. Examples of research employing the Munsell system marked its impact over time while illustrating and delineating the ideas of fractals and patterns in environmental colour changes at all scales of urban space. Verena M. Schindler (CH) and Yulia A. Griber (RU) presented the results of the “Survey of the Use of the Munsell Colour System in Environmental Colour Design,” which included feedback from nearly all members of the SG ECD. Esther Hagenlocher (US) talked about “Colour Reflectivity in Daylit Spaces: Quantifying Indoor Colour Reflectance in Terms of Experience and Performance.” Tien-Rein Lee and Vincent C. Sun (both from TW) showed us exciting material about “An Order System Based on Material Perception which Adds Dimensions to Surface Colour Perception,” drawing attention to their work in developing an order system of colour appearance using



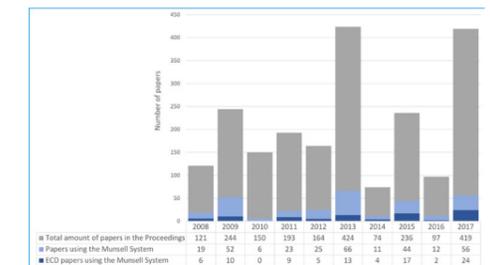
Speakers at the SG ECD colloquium in Boston (from left to right): Milena Quattrer, Esther Hagenlocher, Tien-Rein Lee



AIC papers applying the Munsell system in different research fields



Munsell Centennial Celebration Symposium (from left to right): Yulia A. Griber, Paula Alessi, Maggie Maggio, Verena M. Schindler



Number of AIC papers using the Munsell system in the years 2008-2017

measurements based on Cesia, a term introduced by José Luis Caivano. Milena Quattrer, Anna Paula, and Silva Gouveia (all from BR) provided interesting insights into “Exercises of Chromatic Investigation and Analysis on Colour Education,” focusing on the practical exercises of chromatic investigation and analysis based on the Munsell system as an important pedagogical tool in teaching basic concepts of colour theory.



Tien-Rein Lee: From transparent blue to opaque blue

A second meeting of the SG ECD took place at the AIC Interim Meeting, 25–29 September 2018, in Lisbon (PT) and included four talks related to environmental colour design. Klaus Richter (DE) presented his research about how test charts of the standard ISO 9241-306:2018 for displays and multifunctional office devices can be used in colour education. He explored the scope of application, presenting different examples of these charts. His publication *Colour, Colour Vision and Elementary Colours in Colour Information Technology* (2015) can be downloaded at <http://standards.iso.org/iso/9241/306/ed-2/ES15.PDF> and comes with different versions for monitor (S), offset (L), and printer (P) output, and in six different languages. Fiona McLachlan (UK) reported on the research for the recent book and exhibition *Colour Strategies in Architecture* (2015), which were products of a chance meeting at the AIC Conference in Zurich in 2011, where three of the authors met for the first time and felt an immediate rapport. A four-year international, interdisciplinary collaboration between Haus der Farbe in Zurich and University of Edinburgh followed aimed at enhancing the understanding of the strategic use of colour within architectural design. Zena O'Connor (AU) delved into *Colour Interventions with Purpose*, especially into the capacity of colour to influence mood and behaviour through colour interventions and supergraphics in the urban environment. She provided interesting examples of colour interventions in Sydney and across Australia, underlining that their increasing prevalence is primarily due to research supporting this approach as well as an abundance of colour intervention initiatives around the world. The meeting concluded with a short workshop organized by Cath Carver (UK) in which the participants were invited to share their views on such topics as how colour affects urban space, how colour harmony might be achieved in the built environment, the main challenges in using colour effectively in the built environment, and how such challenges can be met.



Colour Strategies in Architecture: Colour portrait of the reading room, Hans Scharoun, Berliner Philharmonie



Colour Strategies in Architecture: Visualization hushed tonalities



Edward Gibson delivering his talk at SGLC meeting in Boston, 15 June 2018.

**SG LC has members 180  
from 45 countries**

**Twitter // @aic\_lc  
499 followers**

**Facebook // @languageofcolour  
847 follows**

# SG LC

## LANGUAGE OF COLOR

Chairman: Dimitris Mylonas (UK)

Co-Chairman: Galina Paramei (UK)

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

The purpose of the AIC Study Group on the Language of Colour (SG LC) is to share information on and discuss studies on psycholinguistics, semantics and semiotics of colour names and relation of these to cognitive (neuro)science of colour perception. Key topics are colour cognition, colour naming, categorisation, colour memory, colour semantics and semiotics, and cross-cultural differences.

The SG LC has currently 180 registered members from 45 countries. The social networking platforms of SG LC in Twitter (@aic\_lc) and Facebook (@languageofcolour) have currently 499 and 847 followers respectively. On our website: <http://www.language-of-color.aic-color.org/> we share latest news on the development of research on the language of colour and the related resources. New resources are welcome.

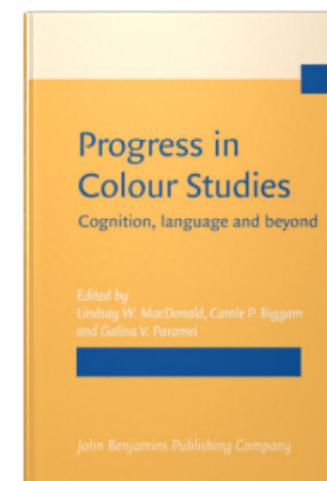
In 2018, as part of the AIC events, we were delighted to host two SG LC meetings.

At the Munsell Centennial Color Symposium, 10-15 June 2018, organized by ISCC/AIC in Boston, USA, the session dedicated specifically to the SG LC had about 40 attendees. Edward Gibson (MIT) gave an inspiring talk related to his recent co-authored article 'Color naming

across languages reflects color use' (Gibson et al., PNAS, 2017). The talk instigated an interesting and stimulating discussion related to physiological and cultural influences on colour naming. Further, in the meeting the Chair of the SG LC Dimitris Mylonas talked about the status and future challenges of the SG LC.

In addition, as part of the main programme of the Symposium, Dimitris organized and led two workshops on colour language. In the first workshop, participants had the opportunity to learn how speakers of different languages name simulated Munsell chips in an ongoing online colour naming experiment. Noteworthy, the experiment has been recently redesigned for all new devices (accessible at: <https://colornaming.com/>). In the second workshop, its attendees explored potential miscommunication involved in colour naming through colour naming and matching games. Finally, as part of the poster session of the Symposium, Yulia Griber presented research on object related colour names in Russian produced as a result of collaboration between members of the SG LC; the project outcome has been now been published as a journal article in a special issue of *Color Research & Application* (December 2018) dedicated to the Symposium.

Further, during the AIC Interim Meeting, 25-29 September 2018, Lisbon, Portugal, the SG LC meeting was chaired by Ivar Jung and Maggie Maggio. The meeting had about 20 attendees. Ivar reported on the status of the Study Group and Maggie led a group discussion on basic and primary colours. Adrian Englert gave a talk about his work on Semiotic Color Characters aiming to create a universal alphabet of characters and icons for colour and light description. In addition, as part of the main programme of the conference, Yulia Griber presented results of her co-authored research on edible colour names in Russian and English.



We conclude this year's report on SG LC numerous events and achievements by announcing recent publication of a new book *Progress in Colour Studies: Cognition, language and beyond* (2018, John Benjamins, Amsterdam/Philadelphia), co-edited by Lindsay MacDonald, Carole Biggam and Galina Paramei, Co-Chair of the SG LC. This collective monograph (24 chapters, 470 pages) presents an

authoritative and up-to-date research by experts in colour studies across a broad range of academic disciplines, including colour perception, cognition, psycholinguistics, linguistics, anthropology,

onomastics, philosophy, archaeology and design. The book chapters were developed from talks and posters presented at the Progress in Colour Studies (PICS2016), international conference held in September 2016 at University College London. All chapters have been rigorously peer-reviewed and revised to ensure the highest standards throughout.



Communicating colours during the Colour Brings People Together workshop in Boston, 15 June 2018.



Ivar Jung and Maggie Maggio at SGLC meeting in Lisbon, 27 September 2018

// 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*

**Robert William Gainer Hunt  
(1923-2018)**

English colour scientist, technologist and lecturer. As with many scientists of his time, his enthusiasm for colour, lighting and metrology was inspired by David Wright of Imperial College London. For 36 years, he was employed at Kodak Research Laboratories in Harrow, Middlesex, eventually becoming Assistant Director. In 1957 he first published *The Reproduction of Colour in Photography, Printing and Television* (updated six times), followed by *Measuring Colour* in 1987, as well as submitting over 100 papers on vision, metrology and colour science. Hunt was highly valued contributor to many colour symposia. He was awarded the RPS Progress Medal in 1974, the Colour Group (GB) Newton Metal in 1975, the Judd-AIC Medal in 1987 – having been AIC President 1982-85 – plus the Printing Institute Gold Medal in 1989, the Society for Information Display Gutenberg Prize in 2002, and the ISCC Godlove Award in 2007, followed by an OBE in 2009, for outstanding service to science and education. Robert Hunt died on October 23rd, 2018.

**Geoffrey Henry Hutson  
(1923-2018)**

English electrical engineer. In World War II, Hutson became one of the first members of the Royal Electrical and Mechanical Engineers (REME), before returning (from active service in Gambia) to teach science at a school in Kent, and then electronic engineering at Canterbury College of Technology. His first book, *Television Receiver Theory* (1966) rapidly became a standard textbook, and was expanded in 1971 as *Colour Television Theory: PAL-system Principles and Receiver Theory* and again in 1990 as *Colour Television*. In his 80s he also published *The Big Bang*, questioning current theories on the origin of the universe, and a novel based on his early life in Kent, where he died on April 3rd, 2018.

**Roberto Daniel Lozano  
(1934-2018)**

Argentinean physicist and mathematician. Author of over 200 papers and two significant publications on color science: *El color y su medición* (Color and its measurement, 1978) and *La apariencia visual y su medición* (Visual appearance and its measurement, 2015). AIC Judd Award-winner in 2001, he was also chairman of CIE Technical Committee 220, on Visual Gloss, and member of CIE Technical Committees for 15:2, on Colorimetry (1986), and 175, 'A Framework for the Measurement of Visual Appearance' (2006). Lozano founded the Argentine Color Group in 1980 and served as its president until 1992. He was an active member of the AIC, and served on the editorial boards of both *Color Research & Application* and *Optica Pura y Aplicada*. Roberto Lozano died on September 19th, 2018.

**Claudio Oleari  
(1944-2018)**

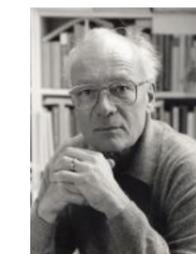
Prominent Italian physicist who was 'the last and ultimate authority on OSA-UCS color space and perceptually uniform color.' In 1995 he founded the Gruppo in Colorimetria e Reflectoscopia, which later became the Associazione Italiana Colore. His fields of study included applying physics to perception, and establishing their role in colorimetry. He was associate professor at the University of Parma, and author of *Misurare il colore: spettrofotometria, fotometria e colorimetria* (1998). Prof Oleari died on January 23rd, 2018 in Reggio Emilia.

**Robert Livingston Feller  
(1919-2018)**

North American award-winning physical chemist and conservator. Dr Feller devoted his entire career to scientific research into the conservation of artworks. From 1950 he became a pioneer of new developments after becoming the first National Gallery of Art Fellow at the Mellon Institute, Pittsburgh, and remained one of the leading practitioners in the field until his retirement there in 1988. His researches led to the widespread adoption of stable polymers, and ISO Blue Wool standards for assessing light exposure. He published over 100 technical articles on fading, deterioration and other modifications of artists' materials. He was author of Volume 1 of 'Artists' Pigments: A Handbook of Their History and Characteristics' (1986), and his 'Contributions to Conservation Science' (compiled by Paul Whitmore) was published in 2003. He was President of the American Institute for Conservation and President of the National Conservation Advisory Council (1975-79). In 2014, Robert and Ruth Feller donated their collection of over 2,500 historical books on colour to the library of the National Gallery of Art, Washington DC. Dr Feller died in Pittsburgh on August 2nd, 2018, aged 98.

**Lorenz Dittmann  
(1928-2018)**

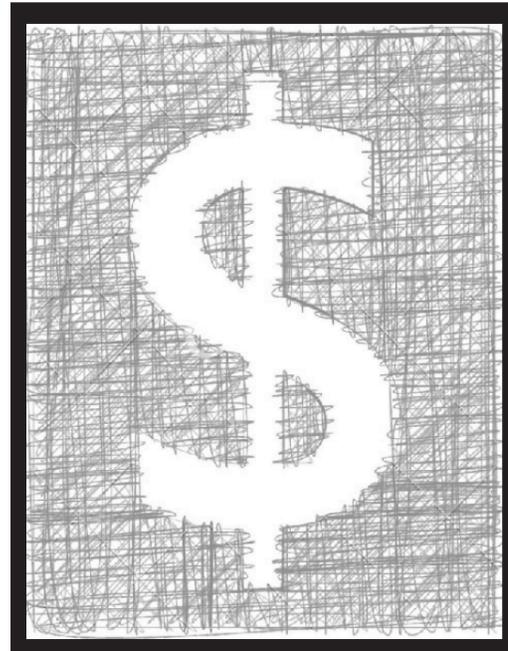
German art historian. Dittmann completed his studies in 1955 at the University of Munich with a doctoral thesis (supervised by Ernst Strauss) on Mathis Grünewald's use of colour. From 1958 he taught at the Kunsthistorisches Institut, Aachen University, where he wrote a Habilitationsschrift (1965), on style, symbolism and structure. Between 1977 and his retirement in 1996 he was professor of art history at the Saarland University. Other publications include *German Expressionism: The Colours of Desire* (1981), *Die Kunst Cezannes: Farbe, Rhythmus, Symbolik* (2005), and *Farbgestaltung in der europäischen Malerei* (2010), a survey of colour in European painting. Lorenz Dittmann died in Saarbrücken on March 11th, 2018.

**Klaus Michael Meyer-Abich  
(1936-2018)**

German physicist and natural philosopher. He studied physics, philosophy, and science history in Hamburg, Göttingen, Bloomington IL, and Berkeley CA. He subsequently worked at the University of Hamburg with Carl Friedrich von Weizsäcker (1912-2007), as a director at the Evangelical Academy, Hofgeismar, and at the Max Planck Institute for the Study of Societies, Cologne (1970-72). He was later appointed professor of natural philosophy at the University of Essen. Meyer-Abich was also a member of the Nuclear Energy Policy Commission of the German Bundestag (1979-82) and a Senator for Science and Research in Hamburg (1984-87). In 2000 he contributed to *Farbe, Felder, Philosophie: ein ästhetischer Dialog* (Colour, Fields, Philosophy: an Aesthetic Dialogue). Professor Meyer-Abich died on April 19th, 2018.

// FINANCIAL REPORT //

## FINANCIAL REVIEW FOR 2018



Reconciliation statements of AIC bank  
and PayPal accounts for year  
1-Jan-2018 to 31-Dec-2018.

Prepared by the AIC 2018-19  
Treasurer, Leslie Harrington.

All figures are in Australian dollars (AUD).

Approved by AIC 2018-19 Auditors, Berit  
Bergström and Jose Luis Caivano.

## 2018 Financial Status

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

**TOTAL FUNDS for 2018 // AUD \$31,337.99**

### PayPal (Australia)

Opening Balance on 1st January 2018	2,199.48
Income from members	+2,403.78
Service Fees	-92.14
Expenses	-796.52
Closing Balance on 31st December 2018	AUD \$ 1,515.12

Transaction fee 3%

EUR €156.30 Expense scanning and ISSN USD \$347.50  
Web hosting / Membership Management System  
USD \$100.00 Annual Report design support BRL \$131.16  
refund overpayment dues

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

Opening Balance on 1st January 2018	7,460.03
Income from members	+2,439.10
Transfer from PayPal Account	+2,000.00
Expenses	-4,914.31
Closing Balance on 31st December 2018	AUD \$6,984.82

see itemized expenses below

#### ITEMIZED EXPENSES

Shipping	149.27
Bank & Government fees	530.00
Accounting fees	1,210.00
Transfer fees	287.79
Student Award Dinner & Cash Prize	2,513.70
Wild Apricot (membership management)	223.55
TOTAL	AUD \$4,914.31

Annual Review 2017 postage & misc

12 months@ \$10 - Org. registration

dinner EUR €300

6 months @USD \$25

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

Opening Balance on 1st January 2018	22,727.34
Interest	+110.71
Closing Balance on 31st December 2018	AUD \$ 22,838.05



**AIC**

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