ASSOCIATION INTERNATIONALE DE LA COULEUR
INTERNATIONALE VEREINIGUNG FÜR DIE FARBE
INTERNATIONAL COLOUR ASSOCIATION

ANNUAL REPORT
2015

NO. 28
EDITED BY
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University College London
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The climax of the AIC year in 2014 was the interim meeting in Oaxaca, Mexico, hosted by Amexinc (see page 9). It was colourful, chaotic and memorable for the range of activities, the venue and the great efforts of the organisers. It is one of the admirable features of the AIC that it enables participants to meet people from many different backgrounds and disciplines, and to travel widely to experience different cultures.

Thank you to all member societies who have contributed reports on their activities. It is a special pleasure to welcome Norway as a new member, under the able leadership of Prof Jon Hardeberg. Highlights of this Annual Report include: a huge Festival of Colours in Canada (page 15); analysis of façade colours in Helsinki (page 18); celebration in Germany of the 40th anniversary of DfWG jointly with a major DfZ conference ‘Colour as Experiment’ (page 20); award of an official coat of arms to the Colour Group of Great Britain (page 21); histogram analysis of flag colours in Slovenia (page 29); celebration of the 50th anniversary of the Swedish Colour Foundation (page 31); and inspirational methods in colour education (page 40). There is also a special report on activities for International Colour Day.

Another special event for me in September was to be invited to present the opening keynote talk at the 10th Annual Conference of the Italian Gruppo del Colore in Genoa (page 23). With the large number of delegates representing many countries, and the high quality of material presented, this conference can make a good claim to be the European Colour Conference. It reflects great credit on Prof Maurizio Rossi and Prof Alessandro Rizzi, who over a decade have steadily built up both their organisation and their annual conference to its present high level of excellence.

Looking through the reports from the member societies, it is apparent that one of the major themes is environmental colour design. This is evidenced not only by the strength of the Study Group SG-ECD (page 41) but also by the number of projects being undertaken in many countries. It seems that a new type of professional is emerging, the colour practitioner, who can combine design skills with knowledge of colour psychology and colour science to find innovative ways to apply colour in architectural and urban environments. This is a lucrative commercial field (page 36), and one that will continue to be a strong focus of activity for AIC in years to come.
For another year the AIC has continued its work to promote studies of colour and bring together all those researchers of the world who want to share their knowledge. In 2014 there were several important events worth highlighting. In October was held in Oaxaca the AIC Interim Meeting ‘Color and Culture’ organised by the Asociación Mexicana de Estudios del Color. At this meeting we had the opportunity to approach Mexican culture and its intimate relationship with colour through artistic expression in textiles, buildings, decorative items, etc. We spent four beautiful days with new ideas and learning about Maya and Zapoteco culture, as for example in a very interesting workshop of dyes and textiles during the final excursion. The AIC has a firm commitment to support younger members in order to develop colour studies in many different countries.

By the time this Annual Report is published we will be celebrating the 2015 Midterm Meeting ‘Color and Image’ in Tokyo, Japan, which is expected will be a great event that will bring together scientists from around the world. In 2016 AIC will return to South America to celebrate the Interim Meeting ‘Color in Urban Life’ in Santiago de Chile and thus support development of the Asociación Chilena del Color. In 2017 the quadrennial AIC congress will be held in Jeju, Korea, led by our friends in the Korean Society of Color Studies. At the last meeting of the executive committee of the AIC held in Oaxaca, also the candidatures of Lisbon and Buenos Aires were approved to host the meetings in 2018 and 2019. As we see, the continuity of the AIC is assured.

Another important decision taken at the last EC meeting was the establishment of ‘AIC Colour Award in Art, Design and Environment’. Although the Judd Award is well established to recognise researchers who have excelled in Colour Science and Technology, we have lacked an award recognising those who excel in the areas of design, art, architecture and humanities. Today the majority of AIC people are practitioners in one of these fields. This new award will be given with the same frequency as the Judd Award and follow similar rules. It will be awarded for the first time during the 13th Congress in Korea. In Tokyo we will present the Judd Award Medal to Professor Françoise Viénot, from the Musée National d’Histoire Naturelle in Paris. This is undoubtedly well-deserved by Prof Viénot, disciple of Yves Le Grand, one of the founders of the AIC. She is a world expert in the study of normal and abnormal vision of colour, especially experimental psychology and physiology, in which she has made important contributions. The Vice-President of AIC, Nick Harkness, chaired the Judd Award Committee very efficiently.

The AIC Study Groups continue their work, although some changes have occurred. The study group on ‘Visual Illusion’, chaired from the start by Prof Osvaldo da Pos, has completed its activity after his retirement. We want to acknowledge publicly the work of Osvaldo and his enthusiastic participation in almost all AIC conferences. His contributions to the field of psychology and colour have been greatly appreciated. The dynamics of the AIC naturally causes some study groups to disappear and others to emerge strongly. Thus the study group on the ‘Language of Colour’, which after its launch by Professors Paul Green-Armitage and Jinsook Lee, has now been handed over to Dimitris Mylonas and Galina Paramei, who are both active researchers in this field. The other study groups, ‘Environmental Colour Design’, ‘Colour Education’ and ‘Colour Vision and Psychophysics’, remain very active, through symposia in AIC Meetings, thanks to the important work of their chairmen Robert Hirschler, Verena M Schnidler and Katsunori Okajima respectively.

A promotional activity in which AIC is fundamentally involved is the celebration of International Colour Day. Gradually, more and more countries are celebrating this day through activities organised by members. The coordination work carried out by Prof Maria João Durãoo from the AIC EC is hard and sometimes thankless, but I think eventually we will reach the goals we set when we established the ICD. This year, during the General Assembly of the AIC in Tokyo, new executive committee for the period 2016-2017 will be elected. According to the amendment of the articles of AIC we passed in the GA in Newcastle in 2013, the EC will be renewed every two years, with the aim of making it more dynamic. We are confident that these objectives will be met and that the AIC will continue its work and become even more agile. Members of my Executive Committee have done a good job in 2014 and I am sure that this will continue during 2015. I want to thank them all for working so effectively and for allowing me to guide them during these two years. It has been my honour and pleasure.

Finally I must thank all the AIC for giving me the opportunity to participate over many years of my life in meetings and conferences where I met many researchers who have enriched me with their knowledge of colour in its various aspects. I have been able to establish friendships that will last forever. Also, I have had the opportunity to participate in the management of this extraordinary organisation, unique in that it brings together people who come from such varied fields of science, technology and the humanities. I consider that I have received more than I have contributed along these years.

Professor Javier Romero, AIC President
Accounts for the period 1 January to 31 December 2014, prepared by the AIC Treasurer, Prof Tien-Rein Lee.

(1) **St George Bank Freedom Business Savings Account (Australia)**

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<td>Deposit on 3 May</td>
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<tr>
<td>Withdrawal on 15 May</td>
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<td>AIC WIKI providing July-2014 to June-2015 (EU€ 200)</td>
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<td>Printing of AIC Annual Report – Print Domain (UK£ 545.03)</td>
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<td>Account Service Fees: 31st Jan ~ 31st Dec 2014</td>
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(2) **St George Bank Business Access Saver Account**

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<td><strong>St George Bank Total Funds</strong></td>
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**Paypal**

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<td>Opening Balance on 1 January 2014</td>
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<td>Transferred Funds to Bank Account on 3 Feb 2014</td>
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<td><strong>Closing Balance on 1 January 2015</strong></td>
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**INDIVIDUAL MEMBERS**

In addition to the categories of regular member and associate member, Article 4 of the AIC Statutes defines the category of individual member: ‘Persons may be affiliated with the AIC as individual members if they are interested in the aims of the AIC and show they have knowledge in the field of colour. Individual members may take part in the activities of the AIC and receive the information and documents intended for regular members. They shall, however, have no right to vote. They cannot make part of the AIC Executive Committee unless they belong to and are nominated by a regular member.’

<table>
<thead>
<tr>
<th>Name</th>
<th>Country</th>
<th>Email address</th>
</tr>
</thead>
<tbody>
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<td>Olumide Akomolafe</td>
<td>Nigeria</td>
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<td>Dr Andrew Chalmers</td>
<td>New Zealand</td>
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<tr>
<td>Prof Dr Maria João Durão</td>
<td>Portugal</td>
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<td>Iran</td>
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Mituo Kobayasi (1941–2014) A former president of the Color Science Association of Japan, Professor Emeritus of the University of Electro-Communications, Tokyo, Doctor Mituo Kobayasi died of thyroid cancer in Tokyo on 5 October. Born in Seoul, he started his working career in Tokyo University as a mathematician and a computer scientist. As a professor of the university, he contributed to education of computer programming for beginners. He started his research activities in colour science in the late 1980s. His first presentation in AIC was at the AIC 1997 Congress at Kyoto. He tried to discover aesthetic factors in paintings which are well known as excellent masterpieces by computational, quantitative colour analysis. In recent years, he tried to construct a ‘true uniform colour space’ based on understanding of human colour perception mechanism and mathematical consistency. He attended the AIC 2013 Congress at Newcastle, and was looking forward to meet his friends at the AIC 2015 Tokyo conference.  

— Takuzi Suzuki, CSAJ


— Roy Osborne

Bernat Klein (1922–2014), was a

was a Serbian textile designer and painter. Based in Scotland, he established Colourcraft in 1952, with a weaving centre in Galashiels in the Scottish Borders, producing rugs and other items sold at the company’s shop in Edinburgh. He created innovative textiles, building up trade with Marks and Spencer. Klein supplied textiles to haute couture designers in the 1960s and 1970s, and later sold his own clothing collections. In 1962 Coco Chanel chose Klein’s fabrics for her spring collection, which led to greater exposure and further sales to couture houses in the US and Europe including Dior, Balenciaga, Pierre Cardin and Saint Laurent. Klein drew inspiration from nature for his textiles and paintings, and was the author of Eye for Colour (1965). His signature fabrics included colourful exotic tweeds, incorporating mohair and ribbons, as well as velvet and jersey fabrics. He won the Design Council Award in 1968, and was awarded an honorary degree from Heriot-Watt University in 2003.  

— Wikipedia

Harry K Hammond III (1917–2014) passed away on 29 May at the age of 97. He was a long-time member of the ISCC, serving as director from 1974 to 1976 and as editor of the ISCC News in 1986. In 1948 Harry was a founding member of ASTM Committee E12 on Color and Appearance. He later served as Chairman of the ASTM delegates to the US National Committee of the CIE. At the National Bureau of Standards (NBS), where he worked 1939–77 he developed standards for appearance attributes such as colour, gloss and haze, as well as new or improved test methods. He later joined the staff of Gardner Laboratory, now BYK-Gardner. He was active in CIE since 1967, and served as secretary of the US National Committee 1967–71. His many accomplishments have been recognised throughout the colour community. He was elected a Fellow of the Optical Society of America (OSA), received the Nickerson Service Award from the ISCC in 1988, the ASTM Award of Merit in 1963, and Honorary Member of the ISCC in 1991. In 2000 he was the first recipient of its Richard S Hunter Award, presented in conjunction with the National Institute of Standards and Technology (NIST) workshop on metrology and modelling of colour and appearance. He worked tirelessly to introduce younger colour scientists to both the ISCC and ASTM E-12. Many members became involved because of his encouragement.  

— Jack A Ladson

Johannes Pawlik (1923–2014), German artist; author of Die Theorie der Farbe: eine Einführung in begriffliche Gebiete der ästhetischen Farbenlehre (1969/1990, with Spanish edition Teoría del color 1996), and Die Praxis der Farbe: bildnerische Gestaltung (1981/1993). The latter was a textbook with 64 colour plates, dealing with art and design. He showed that in the complex field of artistic endeavour, the theory and practice of painting are inextricably linked, relying on personal observation and constant re-assessment of imagery.  

— Roy Osborne
There continued traditional 'Color, traditions, buildings, and psychology; which gives the place the largest ethnic and linguistic diversity in Mexico. All these elements were important not only for the selection of the venue, but for the theme of the Conference: ‘Color, culture, and identity, past, present and future’.

The first inhabitants of Oaxaca were the Toltec, Zapotec, and Mixtec. They initiated the construction of Monte Albán or Holy Mountain in 500 BC where they lived for more than 1,000 years during which they continued building of this great sacred centre. We selected this site so that delegates could learn something of that extensive pre-Hispanic indigenous world.

With the conquest of the Spanish, the first Catholic missionaries from the Dominican order arrived in Oaxaca in 1528. This heritage gave this city a colonial touch in its buildings, which are rich in artistic expression, that our participants had the opportunity to visit in their streets in a traditional ceremony called Calenda.

During this conference, the papers were grouped into eight major themes: architecture, art-design, education, psychology, meanings, technology, dyes and pigments, and urbanism. The topics with the largest number of papers were meanings and psychology; in the first, the meanings were related to traditions, language and the use of the meanings; in psychology they were related to perception, motivation, and the impact of colour on people. Papers about dyes were classified into textiles and pigments. The topics related to art and colours were divided into arts and traditions, and art and contemporary studies. Some papers were related directly to diverse cultural aspects as well as architecture.

The keynote speakers were: Dr José Luis Caivano: ‘Color and cesia as signs; indexical use of color and cesia in nature and culture’; Dra Renata Pompas: ‘Mexico and its colors, between stereotype and globalization’; Dr Lindsay MacDonald ‘Colour naming: language and gender’; Dr Roy Berns: ‘Van Gogh compliments’; Dr Albert Vanel: ‘La couleur dans les cultures du monde’; Dr George Roque: ‘Colour and symbolism’ and Dra Georgina Ortiz: ‘The symbolic universe of color in Mexico from the pre-Hispanic world to the present’.

We thank all participants for making reality of this long-held goal of AMEXINC and contributing to the growth of the AIC and of colour studies in Mexico by sharing their colour researches and experiences in the conference sessions.
The Argentine Color Group (Grupo Argentino del Color, GAC) was founded in 1980, and brings together institutions and individuals who share an interest in the study of colour science and colour applications. The goals of the Group are to encourage research on problems related to colour, to promote the exchange of information with similar associations abroad, and to integrate the different fields for the study of colour: science, technology, design and education. There is also a strong interest in the Group from the artistic community who share a passion for the study of colour science and applications in the diffusion of their works.

To promote dialogue, discussion and exchange of ideas between researchers, teachers and professionals, the National Conference of Color 2014 was held on 9–10 June in Córdoba, the ‘City of Arts’, organised by the Argentine Color Group (GAC), High School of Applied Arts ‘Lino E Spilimbergo’ of the Provincial University of Córdoba (UPC) and the Institute of Color of the Faculty of Architecture, Planning and Design at the National University of Córdoba (UNC). The event included three keynote lectures, two panels of experts, three group oral presentations, two poster sessions and over 150 participants. The keynote lectures were by José Luis Caivano (President of the International Association for Visual Semiotics): ‘Chromatic mixtures: separate categories or gradations with intermediate situations?’ and Miguel Sablich (UPC and UNC): ‘Artificial colors (digital and offset), their production and the new color wheel’.

The 11th ARGENTINE CONGRESS OF COLOR was held 12–15 November 2014 in Mar del Plata, organised by GAC at the Faculty of Architecture, Design and Urbanism (FADU-UNMDP). Six keynote lectures were presented:

• Dardo Bardier (architect, Uruguay): ‘Successive supports physical, biological and social of colour’.
• José Luis Caivano (Professor at the University of Buenos Aires): ‘Color and light as signs: uses indexical of color and cesia in nature and culture’.
• Alfonso Claros Uzqueda (Bolivian Association of Color): ‘Cromatica integration in urban context’.
• María Paula Giglio (President of the Argentine Color Group): ‘Didactic devices for teaching of color and cesia’.
• Marina Porrúa (National Project Director ‘Productive Identities’): ‘The color of identity’.
• Ysabel Tamayo (Professor at the National University of Litoral): ‘Study and experiences with narrative hypermedia’.

In addition to sessions of oral presentations and posters, and conversation with students and teachers by José Luis Caivano about his research, were exposed the work of students from FADU-UNMDP, in the areas of Visual Communication (Architecture) and Language Proyectual (Industrial Design), and of High School of Visual Arts ‘Martin Malharro’. The topics presented concerned colour in architecture and design, the arts, industry, technology and basic science.

We also held an exploratory first meeting between researchers from Bolivia, Uruguay and Argentina to form a space for colour exchanges in Latin America.
Australia has an image of blue skies, great beaches and fascinating landscapes. We also need to add wildly changeable weather patterns, heavy rain, snow falls, major storms, bushfires, droughts, etc. The highlight of our year in 2014 was certainly the bi-annual Colour Society of Australia conference, well managed by our West Australian division who presented an excellent speaker and leisure programme that garnered many compliments and certainly stimulated interest in colour. The theme for this event was ‘Space, Time & Colour’, and speakers ranged from a noted Aboriginal graphic designer and artist from the Kimberley region; an Oxford scholar and reverend who spoke on liturgical colour; and many other speakers whose topics covered stratified colours, pigments, colour and music, and much more. Lisa Hannaford, WA Division secretary presented her research project on recolouring and preservation of the Art Deco architecture in a small town.

WA continued its successful Kaleidoscope series of Colour Days, a winning formula that showcases local members, artists and photographers and projects from around the world involving CSA members. Although working hard in planning for the conference, WA division managed a full meeting programme throughout the year.

International Colour Day was celebrated in several state divisions including Queensland with a creative and colourful ikebana workshop, plus their project with a local primary school and design by children of car bumper stickers. In NSW the key event was in central Sydney, ‘The Colour of Music’ using catenary lighting, with coloured lights reflecting the mood of the music in an impressive multisensory experience, achieving good radio and television publicity for the event.

NSW had initiated involvement in the Green Interior Awards, and continued their sponsorship with two design schools. Meetings included a rug studio to view the results of clever design and natural dyestuffs. NSW member Babette Hayes was awarded the Order of Australia (OAM) in the Queen’s Birthday Honours list, in recognition of her major contribution over many decades to magazines and interiors and interior styling.

Founding member of the Colour Society of Australia, a Past CSA President, presenter and speaker at many conferences and congresses around the world, Dr Peter McGinley has retired after 37 years at Dulux Paints in their colour lab and technical division in Melbourne. His great knowledge of the science and measurement of light and colour is acknowledged by his peers around the world and he has contributed to much advancement in these fields of study and expertise. In his honour and to recognise his major contribution, Dulux named the McGinley Colour Studio at the Dulux Innovation Centre at their headquarters.

Dulux Australia has also launched a colour app enabling access to the Dulux colour library, with over 4,500 paint colours. See: www.dulux.com.au/colour/colour-app

With the efforts of a small group of keen members, CSA has upgraded and redesigned our website and, coupled with Facebook, it is garnering much interest and certainly a greater awareness in the community. Our CSA logo has been redefined and sharpened, our journal Spectrum is always well worth receiving and the online version has been very successful since its introduction several years ago.

CSA Conference members at the dyeing workshop on the WA bushland property of Trudi Pollard.

Samples from the natural dye workshop using natural fabrics and 100% natural plant materials from the Australian bush.

Deborah Bonar’s ‘Scribblebark’ Aboriginal Art in the 21st Century addresses the complexity of Contemporary Aboriginal art practice in relation to new technologies and the possibilities they offer.
On September 21st at night, the Brazilian Colour Day was celebrated with an exhibition of coloured images on a gigantic LED panel on the facade of the FIESP building, thanks to SITIVESP (São Paulo State Union of Paints and Varnishes Industries), one of ProCor’s associate members. SITIVESP, also organised in September a huge trade fair, FEITINTAS, bringing together all the paints, varnishes and related companies in a 4-day event, with exhibitors showing their products. ProCor took part, in a forum with seven professionals: Prof João Carlos de Oliveira Cesar, architect and ProCor individual member; Prof Marcos Ziravello Quindici, chemist and ProCor individual member; Elisabeth Wey, colour specialist from Brazilian Committee of Colours; Prof Mario Bisson, architect from Politecnico de Milano; Leticia Bonjorno and Luciana Bullintini, designers from Ford Colour e Trim.

Seven colour professionals from ProCor at the Debate Forum during the FEITINTAS event.

In this same FEITINTAS event, SITIVESP also organised an exhibition called V ART, COLOUR & INDUSTRIAL DESIGN, in which 14 colours were applied on day-to-day products. Considering the increasingly modern and competitive market, curators Elisabeth Wey and ProCor member Prof Marcos Ziravello Quindici, with the intention of meeting the Brazilian consumer’s desire, selected 14 colours. These colours were the result of intense research to detect the 14 most significant colours for the Brazilian market, and were selected from a group of 37 colours that compose the 2015 CECAL chart CBC – Brazilian Committee of Colours.

Another of ProCor’s associate members is ABRAFATI (Brazilian Coatings Manufacturers Association). One of ABRAFATI’s goals is to encourage the use of coatings as elements of surface protection and embellishment. In 2014 the association promoted studies and research related to coatings, and disseminated knowledge both within and outside the production chain, through courses, seminars, publications and other initiatives. It also fostered the Decorative Coatings Program for Sector’s Quality, which focuses on regulating the market, stimulating the improvement of products and recognising the importance of quality in coatings.

In July, ProCor made some changes to its statutes, mainly focusing on the possibilities of more partnerships with industries and also having a 3-year period for its Board of Directors. In November, the new Board of Directors was elected until 2017. The new President is Prof Dr Paula Csillag; the complete list of names of the new board of directors and news may be found at ProCor’s site, www.procor.org.br

In the past year, the colour CD Cecor sold around 2,600 units, a number that is increasing every year, since its launch in 2002. This is a dual-function tool: on face A it is possible to find the most varied combinations, in harmonies of 1, 2, 3 and 4 colours, which come to more than 110,000 different chords. On face B is denoted as 90 shades by mixing primary paints. A leaflet accompanies the CD, with a commentary of all the chords and the different applications related to architecture, design, decoration, fashion, etc. It is one of several products derived from SCC – System Cecor Colour, a colour space based on subtractive synthesis and describing 4,800 points of colours. The SCC was entirely developed in Brazil by ProCor individual member, Nelson D Bavaresco. More information on http://www.cordesign.com.br/produtos.html

Colour Disc CECOR made by ProCor member Nelson Bavaresco.
In 2014, Association of ‘Color Group – Bulgaria’ continued its promotional activities in the field of colour sciences and their practical applications. We were focused on active artistic activity, but we didn’t lose pace with the regular publications.

In May 2014, together with the Art Centre Modulor Haskovo and Gallery ‘Art Box’ in Sofia we implemented an art symposium ‘Thracians: Tradition and Modernity’. The program included art-sessions and performances, two exhibitions, named ‘Colour and Food’ and ‘Spring Flowers’, book presentations, concert programs and introductions to Thracian cultural and historical heritage. Participants visited a famous local monument – the tomb of a Thracian ruler in Alexandrovo. They discussed the problems of modern restoration ofcoloured antique paintings and in front of wider audience in the new Museum Centre ‘Thracian Art in Eastern Rhodopes’. Members took part in a photo-fest and watched a short performance with the works of the jewellery artist Maya Petrova on the Thracian Nymph Sanctuary near village of Kasnakovo. Participants also visited the chapel of St Anna, where the artist Tanya Kostova was working on its interior decoration. The new edition of translations of ‘Bestiary or a Procession of Orpheus’ by Apollinaire made by Lyudmila Hristova and illustrated by Svetla Hristova, both members of our Association, was presented near the holy spring of St Anna.

During the year, many of our colleagues helped us to empathise with their creative and scientific achievements, with book presentations by: Prof M Almaleh, Red Codes in the Old Testament; Assoc Prof S Lozanova, Art Design; Asst Prof Arch S Tasheva, Problems and Tendencies in Architectural Graphics in Bulgaria in the 20th century. Also through art exhibitions by D Paskov, M Evtimova, E Dimitrova, and M Petrova, all reflecting on different perspectives on the problems of Colour.

Our Association’s publishing activities were represented at the Bulgarian scientific book-market in the Conference ‘State and Perspectives of Research in Bulgaria’, held on 12 June in Sofia, organised by the Bulgarian Academy of Sciences and the Konrad Adenauer Foundation. We were commended for our energetic work for the promotion of colour sciences and for our newly created editions, the two books of our honorary member, the esteemed professor Michel Albert Vanel, La Spiritualité et L’Esprit et la Matière. We also issued two consecutive volumes of our CD series ‘Student Educational and Scientific Events’, the second volume titled Semiotics and Design and the third volume Construction – Eureka – Form.

In 2014 we also issued Number 28 and Number 29 of the Bulletin of the Color Group - Bulgaria and continued work on our website: http://bgcolorgroup.org.
2014 was a year of diverse public outreach as well as organisational consolidation and development led by the Executive Committee of the Colour Research Society of Canada (CRSC). Considerable effort went in to preparing and launching our new website at www.colourresearch.org for which particular thanks go to David Griffin and CRSC Member Tony Saad. Our Facebook page was set up and has attracted attention and new members. We worked on developing Sponsorship approaches and materials – Sharyn Gitalis and Vivian Lo are our Sponsorship leaders. A beautiful brochure was produced by our graphic design team Chi Deng and Weiwei Sun. We also began to gather member profiles.

On January 23, Andrea F Rush gave a lecture at Propeller Centre for the Visual Arts entitled ‘Branding in Colour and Sound’. A lawyer with Heenan Blaikie LLP/SRL in Toronto, and a registered patent and trade-mark agent, Andrea advises on commercialisation of intellectual property and technology. Her lecture addressed current trends in using colour and sound as brand identifiers, which she noted are becoming more important than letters in global brand development. On April 13, CRSC member Dr Jayanne English gave a lecture at Propeller Art Gallery entitled ‘Cosmos vs Canvas: Using Art to Reveal Science in Astronomy’. She showed how original black and white data can be converted to more engaging colour images to enhance public awareness in scientific research and knowledge creation.

Board Member Vivian Lo organised a very successful series of events attended by over 450 people, showcasing diverse interpretations of colours from a cultural heritage perspective during Asian Heritage Month. The ‘Festival of Colours’ series aimed to promote colour knowledge while highlighting the richness and diversity of our cultural heritage in Canada, with support from CRSC and a wide range of Asian non-profit cultural groups in Ontario. The Asian Heritage Colour Seminar was held on May 12 at the North American Centre, North York; May 22 at the Japan Foundation Kimono Club of Toronto; and May 27 in Queen’s Park, Toronto.

The Asian Heritage Colour Seminar contents included:
• Chinese culture – Colour meaning in architecture using Yin-Yang principles and in clothing to reflect status in society.
• East Indian culture – Colour language in saris and hand-woven fabrics.
• Japanese culture – Specific use of colour in kimonos and various colours selected for different layers of clothes.
• Korean culture – Specific use of colour in Hanbok and the Five Colours Principle in cuisine to reflect the five elements.

The Festival events were the highlight of our year, and provided strong public outreach – they were well-attended and well-received. Our graphic designers Chi Deng and Weiwei Sun produced a beautiful poster, as part of our strategy to develop a strong visual identity that celebrates colour.

We put out a call for our first journal, which we hoped to produce by end of 2014, and received a strong response. The journal, entitled Colour/Couleur, will be biennial and each issue will be based on a particular theme, similar to the AIC Interim Meetings. It is now scheduled for launch in Spring 2015, with our Synaesthesia project of 2012-13 as the theme.

In December at our Annual General Meeting we said a heartfelt thank you to outgoing Board Member Robin Kingsburgh. As an artist and astronomer, Robin has been instrumental in setting up the organisation and bringing many events and collaborations to fruition. She has consistently brought interesting lecturers and spearheaded our Crossing Sensory Boundaries events. She continues to work on the synesthesia research that has evolved in Toronto through our conference events. We know she will remain active in helping CRSC to grow and flourish.

We welcomed new Board member Diane Humphries, already an AIC member, as Secretary; and Chi Deng and Weiwei Sun became a ‘joint member’ as our Visual Communications Directors. Doreen Balabanoff and David Griffin continue as President and Vice President respectively. CRSC’s continuing vision is to be an active and inclusive pan-Canadian organisation furthering Canadian contributions and activity in international colour research and knowledge. CRSC is pleased to be an active member of the AIC and to encourage Canadian colour researchers’ participation in international colour research, events and publications.
The Chilean Colour Association (ACC) is where Chilean professionals and other interested persons find a place for discussion, research, and work in the field of colour. It has been a member of the AIC since 2009.

ACC AT THE AIC2014 MEETING

Five members of ACC gave oral presentations at AIC2014:

1. Colours and combinations in the cave painting of Atacama Desert, Chile, by Bernardita Brancoli.
2. Contemporary experimentation and application of pre-Columbian textile colours in Chile, by Maria Rosa Domper.
3. Historical and new colours in the construction of identity: people chooses, by Elisa Cordero.
5. Production of natural pigments from Antarctic Fungi Epicoccum sp., by Marlene Henriquez.

NEW RESEARCH ABOUT COLOR CIRCLES AND GOETHE

Ingrid Calvo Ivanovic, an individual member of both AIC and ACC, presented in her MA Thesis on Image Studies a new research called ‘Color and Image: Analysis of Goethe’s Theory of Colors and its Early Reception’. She explored the influence of Goethe’s Theory of Colors in the development of colour circles and models in the nineteenth century, mainly in the colour circles of Otto Runge, Matthias Klotz, JMW Turner and Mary Gartside. She identified the aspects of Goethe’s theory that could define it as a colour treatise with a visual emphasis, as it is structured from images. The research also proposes a methodology to analyse colour circles and models.

COLOURFUL WORK OF THE ARTISANS OF DOÑIHUE

Paz Cox was part of a colour project that linked designers and artisans of the area of Doñihue, Chile. This project was named ‘Systematizing the Colour Work of the Textile Artisans of Doñihue, Chile’ and contemplated some training activities about colour which helped the textile artisans and weavers of this local area. The colour training consisted of teaching them some colour combinations and how to elaborate innovative colour palettes. At the end of the training, the artisans and weavers were able to propose a new textile collection that will improve their future development.

MORE COLOUR TRAINING

Rodrigo Infante, a member of the ACC and engineer of Pinturas Ceresita, gave some colour classes in different cities of Chile during 2014. These classes were about colour perception and how it could affect the consumer’s behaviour when buying paintings for home decoration. Maria Rosa Domper attended a course for Color Consultant Certification at the New York Design Center, given by Kate Smith of Sensational Color. The aim of this course is to provide advice on colour choices for branding, design industry, spaces, among others.
The Color Association of China is one of the committees of the Chinese Optical Society (COS), specialised for vision and colour. As the National Color Association it joined AIC in 1986, together with the Division 1 (vision and colour) of the China Illuminating Engineering Society (CIES). Its objectives are to encourage the research of colour science and its application in different aspects, through seminars to exchange information and new technology about colour.

The first City Science Festival was held in Beijing on 18 July to 3 August 2014. Through the activities of costume designing and colour matching to show the colour technology and art, a popularisation of basic colour knowledge was performed to the students of primary and middle schools. In 2014, such events were also carried out in 27 universities and vocational colleges in 20 cities, including Xi'an University of Architecture and Technology, Jiangnan University, Luxun Academy of Fine Arts, Qingdao University, and so on. More than 7000 students benefitted from the colour science lectures covering the topics of colour psychology, dress colour, colour trends, colour management, colour planning, etc.

Meanwhile, 26 sessions of vocational training were implemented separately in the cities of Beijing, Shanghai, Qingdao, Changzhou, Foshan, Guangzhou, Hangzhou, Tianjin, Zibo and so on for professional designers of colour collocation nationally qualified by the Ministry of Human Resources and Social Security of China. The trainees involved a great number of professionals, managers and marketers from the industries of apparel, furniture, architecture, decoration, image, textile, environmental art, machine manufacture, cosmetic, optical equipment, internet, fashion, design, coating, etc.

A series of 'PlayColor' books was specially designed and published as reading materials for introducing colour knowledge to children, composed of three books aiming at infants, pupils, and juniors, respectively. From the aspects of nature, life, science, technology, and humanity, these books try to guide the children to find, understand, organise and create colours, to help them to grasp the phenomena, principles, constructions, and design representations on the basis of knowledgeable, perceptual, interesting, artistic, and experimental orientations in the magic world of colour.

The book cover of the infant version, as the first among the three books of the 'PlayColor' series specially designed and published for the colour popularisation to children.

Further, a compact disc (CD) for colour science popularisation is being designed in the way of web browsing, with the purpose to establish a platform for the public to understand colour culture and enrich colourful life. Via the fashionable, visualized, funny and versatile webpage style, the CD will demonstrate the charm and attraction of colour science, and its close interaction with our living surroundings by sections on acquisition, evaluation, reproduction and applications.

The 8th Asian Color Forum, together with the Annual Color Symposium 2014 of China, was held 5–7 December in Qingdao, for which participants came from China as well as France, Japan, Korea, Thailand, and Finland. With the theme ‘The source power of colour’, the Forum gathered colour professionals, scholars, and industrial representatives in Asia to push the progress and development of colour and fashion, and to promote international academic communication and collaboration. At the Symposium, upon the topic of ‘Colour technology and product innovation’, the in-depth discussions and exchange of colour knowledge and experience were accomplished between the Chinese and overseas attendees and among different professional personnel as well.
The Finnish Colour Association celebrated International Colour Day, 21 March, by giving its Iris Award jointly to the Helsinki City Building Supervision Office (BSO), the paint firm Tikkurila Oyj and the Metropolia University of Applied Sciences Degree Programme in Paper Conservation. The award was given for their unique collaboration on reviving and saving for posterity the colour research of building conservator Thorvald Lindqvist. In the 1980s Lindqvist recorded and archived Helsinki’s façade colours, representing building styles and periods from the early 19th century Empire Classical era to the houses of the 1960s. His work was stored on the shelves of the BSO as colour samples and notations in dozens of binders that were all but forgotten for three decades. In 2012 the Building Supervision Office started a unique collaboration with the paint company Tikkurila to resurrect those historical colour plans.

The project involved analysing Lindqvist’s notes and samples and converting them to present-day colour codes and tinting recipes, thus making them available to today’s planners, architects, builders. The ‘Helsinki Colour Plan’ is an Internet site, provided by the BSO, which makes these lost colours available again to all citizens. It includes scanned images of the original colour samples as well as search functions for façade colour by map, area, address and period. It also provides detailed advice and information on methods and materials for repainting and resorting historical façade colours.

Tikkurila’s contribution to the project was to create the tinting recipes and new codes for Lindqvist’ colours, making them available to consumers and builders all over the country. In addition, Tikkurila set up an interactive web-service ‘Helsinki-värit’ (Helsinki-colours), which helps customers choose appropriate colour combinations for their restoration and repainting projects. Students of Metropolia University of Applied Sciences Degree Programme in Paper Conservation rounded off this multidisciplinary project in 2013 by restoring and conserving the original written pages and colour samples recorded by Thorvald Lindqvist, thus ensuring their availability to future researchers. ‘Helsingin värikaava’ was one of the World Design Capital Helsinki 2012 projects.

As an early kick-off to the International Year of Light The Finnish Colour Association organised on 14 November a half-day seminar ‘City Lights and Shadows’, focusing on the subject of urban lighting in technological transition. 120 FCA members, students, teachers, professionals and lay people attended this open seminar, which was held in the Aalto University School of Arts, Design and Architecture’s Media Centre LUME. The programme covered subjects from LED-technology to experience and aesthetics of light. Lighting designer Julle Oksanen spoke about ‘A new paradigm for light: the design of penumbra and the applications of pragmatist theories of truth in lighting design’; post-doctoral researcher Leena Tähkämö’s subject was ‘The EU’s Eco-design directive and life-cycle assessment in exterior lighting’; MSc Markku Varsila, Philips Oy, gave answers to the question ‘Will urban lighting become interactive?’; lighting designer Annukka Larsen gave an overview of ‘The building of meaningful environments: How the citizen’s experience the Jyväskylä City of Light project’; lighting designer, Master of Arts, Dsc Heli Nikunen spoke about ‘Light as a biological and psychological environment’; architect Pia Rantanen and director of lighting Juhani Sandström from the City of Helsinki planning office rounded off with ‘Lighting as shaper of urban spaces: aims and means of lighting for the cityscape of Helsinki’. The day ended with a lively panel discussion with audience participation.

In October FCA board members Harald Arnkil and Ilona Huolman answered listener’s questions in an hour-long phone-in programme devoted to colour on the Finnish nationwide radio channel YLE Radio Suomi. The listeners’ questions and stories ranged from colour in nature to colour preferences.
The «Centre Français de la Couleur» was created in 1976 and is the French representative of the International Colour Association (AIC). CFC is, above all, a centre for the exchange of ideas, on a national and international level, through enhanced communication and cooperation between those of all disciplines and professions involved in the culture of colour.

On 6 June, the annual colour meeting was held in Paris with four conferences: ‘Problems of digital restitution of a colour: the case of a medallion of the Sainte Chapelle’ by Maelys Jusseaux; ‘Metallic reflection and light polarization. Modelling and validation’ by Kai Berger; ‘Light-material prototypes’ by Adrien Lucca and ‘Correspondence between colour names and colorimetric evaluation: an update’ by Robert Sève and Elizabeth Condemine as representative.

**6th June, conference de Maelys Jusseaux – A Mollard-Desfour**

On 11–12 September we co-organised the X Conferenza del Colore in Genoa (Università degli studi) with the Associazione Italiana Colore (It), Colour Group (UK) and the Association de l’Imagerie Numérique Couleur (Fr). Our Secretary, Laurence Pauliac, was part of the Programme Committee and many of our members were part of the Scientific Committee and/or took part in the talks: ‘Environmental Colour: The Seine River and the Concept of the Vegetal in Paris’ by Verena M Schindler; ‘Restorations of the monumental polychromy of the Gothic cathedrals undertaken by Viollet-le-Duc’ by Laurence Pauliac; ‘Development of a monolayer colour changing nail polish’ by Helene de Clermont-Gallerande; ‘Analysis and understanding of differences of lasting properties between shades in a same range of nail polishes’ by Helene de Clermont-Gallerande; ‘The intercultural experience to understand celadon’ by Lucie Ling.

The CFC has also been involved in many projects, including:

- The organization of École de Printemps 2014 ‘Material and immaterial colours: the illusion’ in collaboration with Ōkhra and CNRS in Marsh (Rousillon - Provence).

Delphine Talbot in «L’invention d’un domaine chromatique» collective exhibition, Toulouse (Marsh).

- «Couleurs de l’esprit du temps. Arts, culture, idéologie», a study day organised by RIRRA 27 May, Univ Paul Valéry, Montpellier III).
- At the «Code couleur» exhibition, Strasbourg, Lille, one-day study: «De l’impossible objectivité de la couleur» (Annie Molland-Desfour), Lille (25 Nov).

Main publications by CFC members during 2014:

- Guy Lecerf, _Le coloris comme expérience poétique_, L’Harmattan, sept 2014.
- _Primaire_ n° 174 “Couleurs espaces” (editors-in-chief: Annie Molland-Desfour and Laurence Pauliac) was published.
The Annual Conference of the DfwG was held 23–25 September in Wuppertal and celebrated the 40th anniversary of the organisation. At the AIC Conference in Newcastle the Chairmen of the DfwG and the DfZ had agreed on holding their annual meetings in close sequence and at the same place, the University of Wuppertal. The President of DfwG expressed his desire to invite the German Color Group (GCG), which celebrated its 20th anniversary in 2014, to be part of the joint meeting. Unfortunately, it turned out that, mainly because of the large attendance of the DfZ meeting, it was not possible to hold all the meetings together at the same place. Nevertheless we were able to arrange a place nearby for a joint meeting of the DfwG and the GCG. Tremendous support to achieve this arrangement was given by our member Prof Dr Stefan Brües of the Institute of Print & Media Technology.

The afternoon of the first day was filled by meetings of the DfwG working groups ‘Fluorescence’ led by Dr Claudio Puebla of Axiphos and ‘Multigeometry Colour Measurements and Industrial Colour Tolerances’ where Dr Andreas Höpe of PTB was appointed the new Chairman. In the morning of the second day the DfwG working group ‘Colour Image Evaluation’ (Dr Bernhard Hill) continued the committee work. Thereafter Ferdinand Wülfing reported on ‘A New Procedure for Fine-Gradation of Colours with the help of the Golden Ratio’. Klaus Richter presented the universal ‘Trends in CIE-ISO-Colour Standards for Input and Output of all Colour Devices with a visual independent Elemental Colour Space rgb*’. DfZ is Deutsches Farbenzentrum, the German Central Institute of Colour in Art and Sciences. With the celebration of its international conference ‘Colour as Experiment: Research Strategies in Design, Crafts, Arts and Science’ 2014 has been one of biggest challenges in our never-ending task of bringing the significance of colour into the fields of scientific inquiry, design, human disciplines and education. By gaining support of the Bergische Universität Wuppertal as a co-host to the event, the DfZ has set new standards of how to intertwine its expertise in networking and research with the academic endeavours of scholarly pursuit. The city of Wuppertal, with its unique heritage in pigment manufacturing, heralded hitherto as the DfZ’s new enclave, served as its backdrop.

An international audience of over 600 delegates of interdisciplinary academic backgrounds had the opportunity to enjoy these two thrilling days. Olaf Müller traced a colour line that went from Goethe’s prism experiments to their relevance for today’s physics and optics. The fluxus artist and theoretician Bazon Brock enthralled the audience with the story of his life as art. And colour too was the thread that ran through the 4 keynote talks and 24 papers in fields as varied as cinema criticism, physics, optics, photography, architecture, art history... to name but a few. Beyond that, visitors strolled through the art and design exhibitions, got involved in the many colour lab activities on offer, participated in expertise guided workshops and were baffled at the array of colour curiosities on display. Highlights were two soirées with special intervention of colour-performance musician Kenzo Onoda. Read more at: http://www.farbe-als-experiment.de/
The year began with the well-attended January Vision Meeting, a whole day event at which the Palmer lecture was delivered by Prof Steven Shevell (Univ of Chicago) who discussed contrast from perceptual, not retinotopic, separation of background context. The CRS-sponsored lecture on the organisation and operation of colour circuits in the inferior temporal cortex was given by Prof Bevil Conway (Wellesley College, Boston). In April, on the occasion of the 50th anniversary of the AISB (Artificial Intelligence and Simulation of Behaviour), the Colour Group co-organised a symposium ‘New Perspectives in Colour’ exploring the usefulness of knowledge of colour in an interdisciplinary perspective to drive advances in technology. Several members of the Colour Group presented their research. At the end of that day, Hannah Smithson (Oxford University) gave a public lecture on a colour-coordinate system based on a 13th-century account of rainbows.

Several of the meetings in 2014 shone light on the theme of colour in art and design. Colour forecasting for fashion was discussed in February while the December meeting examined the colour and sparkle of jewels, with a particular emphasis on colour in diamonds. There were also two meetings dedicated to the examination of influential artists known for their innovative use of colour. In June the Colour Group members had a curator-led private tour of the exhibition ‘Form through Colour: Josef Albers, Anni Albers and Gary Hume’ in Somerset House. In October members visited the Malevich exhibition at Tate Modern, followed by Dr James Hicks’ lecture on colour in Malevich artistic expression.

Following the official adoption of 21st March as International Colour Day (ICD) the Colour Group organised and delivered at the Omnibus, at Clapham in London, a wide spectrum of events throughout the whole day. In total there were 15 sessions, including talks and demonstrations that were a true celebration of colour and light in art and design, fashion and physics. The coloured light installation by the invited French artist Nathalie Junod-Ponsard transformed the venue at night.

Janet Best in front of the Sol Le Witt painting 1136, covering two walls of a gallery at the Turner Contemporary in Margate, Kent.

The Colour Group extended its outreach to the local community through another event in June at the Turner Contemporary in Margate. A special colour project was created for a group of local young people to explore the multiple dimensions of the sensation of colour. Their interactive experiences of creating art and ideas about colour were recorded in a short film shown in the gallery alongside a massive painting by Sol Le Witt. Colour Group GB committee members Philip Reilly, artist, and Janet Best, fashion colour specialist, shared their insights. In September, ties with the Italian and French colour groups, Gruppo del Colore and Centre Française de la Couleur, were strengthened with the co-organisation of the X Colour Conference in Genoa.

In line with its tradition, the Colour Group nurtured new scientific talent through its award scheme. The WD Wright award was given to Hanna Gillespie-Gallery (City University, London) for her work on motion capture of colour-defined background textures by luminance-defined motion signals. Bradley Pearce (University of Newcastle) received the CRS award for research on the blue bias of colour constancy. The awardees gave presentations at the November meeting, to which Prof Lars Chittka (Queen Mary, University of London) and Prof Daniel Osorio (Sussex University) were also invited to give specialist lectures. It was an environment in which new and established talents could meet and exchange ideas.

The 2014 Annual General Meeting was a focal point of the year with two very special events. First, Dr Michael Pointer, Visiting Professor at the University of Leeds, was presented with the Newton Medal. In his lecture he gave an enlightening account of the topical question of the measurement of appearance. The second event was of historic significance to the Colour Group: the presentation of its new Coat of Arms by Robert Noel, Lancaster Herald, College of Arms. Thanks to the tireless work and generosity of Ralph Brocklebank (Chairman 1971–73) and the special care of the Lancaster Herald, who together made the grant possible.
The Hungarian National Colour Committee was founded in 1969. The Associations of the Committee have maintained their activities until today and have produced numerous reports, and organised exhibitions and scientific lectures series for the general public in the fields of colour presentation, colour vision, colour environment design, fine arts, industrial application of colours, colour measurement, and synaesthesia.

The LUMEN V4 Conference was held in October with the participation of researchers of the Visegrád Countries (Hungary, Poland, Bohemia). The location of LUMEN V4 was the Visegrád Royal Palace built on the right bank of the Danube, north of Budapest. In 1335 this palace was the location of the political and commercial pact of the Hungarian King Charles Robert, the Bohemian King John of Luxembourg, and the King of Poland Casimir the Wealthy. The conference dealt with colour problems of inside and outside illumination with special emphasis on LED light sources.

Another conference ‘Colour, Built Environment and the Hungarian Folk Art’ was held in November with the participation of Hungarian artists, architects, applied artists, designers and researchers. It was organised in the seat of the Association of Hungarian Fine and Applied Artists in Budapest.

Folk art remains even in our days a living tradition in smaller settlements of Hungary. Certain regions are featuring individual colour usage, which covers even the inner and outer surfaces of buildings, the appliances and clothes. The characteristic regions are Transdanubia, Highlands, Lowlands and Transylvania. The Highland region extends to the southern part of Slovakia featuring Hungarian residents. The Lowland region extends to the Northern part of Serbia. The Transylvanian region belongs today in its entirety to Romania, with 2 million Hungarian residents. There is a common characteristic of all individual regions, namely that red appears everywhere, for the most part in a very saturated form, whereas yellow appears only in a low saturation level.

It is also characteristic that objects, clothes and buildings show everywhere a uniform colour harmony expressing a high aesthetic sensibility. Hungarian folk art keeps distant from gaudy colour schemes. That means if, for example, red and blue appear simultaneously on a surface, the dominance of red will be never jeopardised because of the small and scattered blue surfaces.

The leadership of CIE-MNB has been taken over from János Schanda by György Ábrahám. The international membership fee is now paid by the Association of Illumination (VTT) instead of the Hungarian Academy of Sciences. Division 1 has dealt with the Hungarian translation of the recent issue of the CIE International Lighting Vocabulary. In June an internal conference was organised for the subcommittees and working groups of CIE-MNB divisions.
The 10th Annual Conference was held on September 11–12 at University of Genoa. It was the second joined meeting with the Colour Group (Great Britain), and the first with the Centre Français de la Couleur and the Groupe Français de l’Imagerie Numérique Couleur. Invited speakers were Lindsay MacDonald (University College London), Jasna Martinovic (University of Aberdeen), Gianluigi Ciotta (University of Genoa). Also Verena M Schindler and Françoise Viénot were invited. About 200 participants attended and 133 papers from various fields of colour study were published in the proceedings. The day before the conference opening, the workshop ‘Discutere di Colore’, planned by Osvaldo Da Pos, was held with eight speakers from science, psychology, design and architecture. The idea was to exchange points of view, the philosophy behind the way we teach and work on colour.

In 2014, the Associazione Italiana Colore decided to add another instrument of cultural dissemination, in the form of a half-yearly journal, named Cultura e Scienza del Colore to be freely available on-line for everyone, which will include the most significative papers presented in the past editions of the Conferenza del Colore or previously unpublished papers.

Renata Pompas, during her teaching in the 'Digital Textile Design' course, gave to her students the theme ‘Mexico and its colours as interpreted by textile designers in Italy, between stereotype and globalization’. The textile projects were inkjet printed on fabrics, manufactured into a beachwear collection and exhibited in Milan with the presence of authorities on June 26–27. The results were demonstrated to an enthusiastic audience at the AIC meeting in Mexico in October.

The workshop ‘Towards a new Colour Rendering Index: open issues and possible research directions’ was held on November 14 in Milan, as part of the activities of Italian CIE Division 8: Image Technologies, organised by Davide Gadia. Four presentations helped to start an interesting discussion regarding the current state of the research on Colour Rendering Index, and possible further activities.

Francesca Valan planned also the workshop ‘Il progetto del colore: colore reale e colore percepito’, held in Brescia on November 26. Specialised professors exposed the foundations of colorimetry, the NCS system and the variations of perception dependent on light, aimed at raising awareness of colour in architecture, through correct perception.

We gave patronage to the first edition of the Master in Colour Design & Technology course organised by the Poli.Design consortium of the Politecnico di Milano, in collaboration with the University of Milan, which began its lessons on March 31st. The training modules were Colour and Colorimetry, Colour Atlas, Digital Colour, Colour in Communication, Colour in Fashion Design, Colour in Interior Design, Colour in Product Design, and Colour in Urban Spaces.

On February 8th, the meeting ‘Il Violino è Giallo Cadmio. Suonare Van Gogh’ took place in Milan during the ‘Van Gogh Alive’ exhibition. The event had as protagonist part of the Under-13 Orchestra, who played classical music, and 50 children who, while listening to the music, associated colours to music painting on canvas with fingers.

On May 8–9 took place in Milan the ‘Colour Consulting Day. Indoor Outdoor Spaces: New Surfaces’, organised by Francesca Valan. A colour team proposed to architects the most innovative finishes for exterior and interior, with expert advice giving the most appropriate choice for each project.
2014 Annual Meeting

The 45th Annual Meeting of the Color Science Association of Japan (CSAJ) was held 24–25 May at Kyushu University in Fukuoka chaired by Shoji Sunaga. About 202 participants, including from Thailand and Taiwan, attended and 75 contributed papers from various fields of colour science and design were presented. The day before the meeting opened, the pre-event symposium on ‘Education for universal colour design’ was given by four speakers, whose topics ranged from basic colour vision to practices in university education. We also had the kick-off symposium for our Study Group (SG) on ‘Cosmetics, skin and facial studies’ by four speakers researching cosmetics, face detection, facial illusion and the effect of LED lighting on facial skin appearance.

On 24 May, Mr Shin’ichi Funakoshi, a city design manager of Fukuoka, gave a special lecture ‘On the urban design on the city of Fukuoka’. Topics of the contributed papers covered colour harmony, colour appearance, colour in life, colour in culture, skin appearance, LED lighting and colour, and images related to colour. The CSAJ Presentation Encouraging Prize was given to Toru Kitano (Iwasaki Electronic) ‘Recommended luminance of colour lighting based on chromatic strength’

The 2nd Autumn Meeting of the CSAJ

The CSAJ started a new nationwide meeting in autumn to provide an opportunity to present the latest outcomes of colour studies and to activate local groups of the CSAJ. The 2nd Autumn Meeting was held 14–15 November in Shizuoka city chaired by Taka’aki Suzuki. More than 184 people attended and 41 contributed papers were presented. The opening lecture was given by Prof Keiko Higashi (Tokai University) on ‘Designing attractive town/seaport with background of the world-heritage Fujisan’, and Masaaki Kouga (CI Center) gave a special lecture ‘Be creative! Solving social issues with creative thinking’. They talked and showed case studies about making colour design of the landscape and solving social issues. Five study groups participated in the Autumn Meeting. The SG on ‘Cosmetics, skin and facial studies’ invited Yukari Sakazaki (Pola R&M) to lecture on developments in makeup. The SG on ‘Colour vision’ opened with basic colour mechanisms. The SGs on ‘Colours in living environment’ and ‘Foundations of environmental colour control in Japan’ held a workshop and presentation, respectively. The SG on ‘Personal colour design’ held a panel discussion. The CSAJ Presentation Encouraging Prize was given to Kazunobu Tani (Toyohashi Univ of Technology) ‘Automatic spectrum design system for functional illumination’.

Awards


Publications

The CSAJ published six issues of the Journal of the Color Science Association of Japan in 2014. Seven original papers and a number of feature articles including the 45th Annual and Autumn meeting papers were published.

Upcoming Meeting

The 46th annual meeting of the CSAJ will be held on 25-27 September 2015 at Yamagata University in Yonezawa. Preparations are well in hand for the AIC 2015 TOKYO conference on ‘Color and Image’ (see page 45).

Local Chapters and Study Groups

Three local chapters in the Kanto, Tokai and Kansai areas worked actively and organised several meetings throughout the year. CSAJ’s newly elected executives started on 25 May: Prof Takayoshi Fuchida (President), Prof Shin’ya Takahashi (Vice-president) and Prof Naoyuki Osaka (Vice-president) with 15 trustees. Currently, CSAJ has 1586 members.
The Korea Society of Color Studies (KSCS), founded in 1988, became a member of the AIC in 1995. The KSCS hosted an AIC interim meeting in 2000 in Seoul and is now actively preparing for the 13th AIC Congress to be held in 2017 in Jeju, Korea. Last year, we participated in the 2014 AIC interim meeting in Oaxaca and promoted the 13th AIC Congress.

The KSCS elected 14th executives. YooNa Jeong was elected as the President, and ChangLim Jeon, SungHae Kang, MinkYoung Kim, SoHee Kim, ChangSoon Kim, JiHyun Lee and EunMi Yu as Vice-Presidents. Also, two auditors were appointed along with eight Executive Directors, 71 Directors, and 14 Editorial Board members. The new executives were appointed from January 2014 to December 2015 to take care of business of the KSCS.

The General Assembly of the KSCS was held 8 March at the PyungDong campus of ChungAng University. In the General Assembly, GyungShil Choi, former president of KSCS, received the Merit Award. Excellent Paper Awards were given to Professor SeonMin Lee’s ‘A Study on the Characteristics of Color Use for U.N. Studio Architecture’ and EunJung Lee’s ‘A Study on the Color Appearance of Clothing under Store Lighting of Variable Color Temperatures’. The Best Thesis Directing award was given to Professor YungKyung Park for ‘The Correlation of Taste and Color According to Changes in the Concentration of Drinks’. At the General Assembly, Professor YunSun Park, an invited guest speaker and a former president of KSCS, gave a special presentation entitled ‘Diverse Culture and Universal Design in Colour’.

We publish academic papers four times per year (February, May, August and November). A total of 64 papers were published in 2014 in diverse colour research areas including colour science and design. The spring conference was held 31 May at the Seoul campus of ChungAng University, with the theme ‘Color and Tradition.’ YoungSoon Park, honorary president of the Korean Federation of Design Associations, gave a talk about ‘Understanding Color in Cultural Tradition’.

The fall conference on 7 November was at the gallery of Hyundai Engineering and Construction. Under the theme of ‘Creative Color Works,’ Thierry Boissel at Kunstakademie in München gave a talk ‘Poem of Color: New Possibilities of Stained Glass in Architecture’. He also provided a Glass Art workshop at Inchon Catholic University’s Stained Glass studio for members of the KSCS on 8 November. Four oral presentations were given at the conference and YaeSeul Baek received an Excellent Paper Award for her ‘Comparison of Color Enhancement Algorithms for Color Vision Defectives’.

KSCS holds an international colour exhibition every year to support not only academic scholars but also artists. The theme of the 2014 KSCS International Invitation Exhibition of Color Works was ‘C(cyan) + O(orange) + L(lemon yellow) + O(olive green) + R(red)’. Ninety-three artworks were presented from 11 countries from Asia, Europe and USA at the Hillstate Art Gallery from 7–13 November. Eleven Artworks including JeongJoo Park’s ‘Gradient Clock’ and Walter Bergmoser’s ‘Ms Kitty’ were awarded in various categories.

To boost the colour industry and its professionalism, the KSCS has been providing awards through ‘Korea Color Awards’ and it held the 12th ceremony in 2014. The Best of Show, which is awarded by the Minister of Trade, Industry and Energy, was given to Hyundai Motor Kia Design Center’s ‘All New Sorento Imperial Bronze and All New Carnival Powder Blue’. Korea Color Awards are open to eight categories: urban/residential environment, architecture/interior, product, fashion, visual design/media, life/cultural service, colour planning/design, and colour culture/technology. Therefore, most industrial areas will be qualified to apply for the award.
The most important activity of Amexinc during 2014 was the organisation of the AIC Interim Meeting and the Third Mexican Color Meeting, which were held in October in the city of Oaxaca. We made several trips to Oaxaca for preparation of the Interim Meeting and we attended various educational institutions to promote it.

However, the members of Amexinc did not put aside their diffusion activities through seminars and lectures in different parts of the country like Distrito Federal, Guadalajara, Chihuahua and Guanajuato among others, where they took advantage of this situation to invite people to the Interim Meeting in Oaxaca.

A major event in 2014 was publication of Amexinc’s second book, a co-edition with Universidad Autónoma de México (UAM) entitled Tópicos del Color en México y el Mundo (‘Topics of Color in Mexico and the World’), whose authors are members of our association. It covers Empirical Research, Color Theories, Application of Color, Color in History, and Color in the Environment.

This book has been presented in different forums such as the Guadalajara international Book Fair, the Universidad Nacional Autónoma de México (UAM), with a YouTube video at: www.youtube.com/watch?v=XamPvCQ50 and also at other educational institutions, The work has had very favourable reviews, so we are preparing Tópicos II del Color en México. There have also been several events surrounding publication of second edition of Usos Aplicaciones y Creencias del color (‘Uses, applications and beliefs of color’) by Dra Georgina Ortiz.

During the celebration of the International Day of Color on March 21st, we carried out conferences and an exposition of drawings at the School of Psychology in UNAM with the subject ‘The color of violence’. The drawings of situations of violence and non-violence were made by 12-year-old children. These drawings were part of a collaborative research study between Dra Georgina Ortiz and Mabel Lopez from Argentina, entitled ‘The perception of violence through drawings and colours’.

At the Museo Universitario de Arte Contemporáneo (MUAC) in Mexico City, there was an exhibition Teoría del Color that dealt with the colour of human skin and racism. Theory of Colour played with the idea of the existence of a set of basic rules for combining colours in order to present, in a sarcastic fashion, the issue of the discursive or aesthetic assertions that define social distribution and exclusion on the basis of skin pigmentation. The exhibition revealed a diversity of approaches — nationalism, scientism, homogenisation, colonisation, exploitation, exoticisation, sexualisation — all of which indicate the complex web that underlies racism.

In brief, 2014 was a very important year for Amexinc. All persons interested in colour written in the Spanish language can find interesting information, news and nice pictures in Twitter and Facebook. Please follow: @AMEXINC1 and Facebook/AMEXINC. Our web site is at: www.amexinc.mx
Forum Farge, the Norwegian Colour Association, was founded on 10 April 2013. Its aim is to stimulate research on all aspects around colour, to disseminate research-based knowledge about colour, and to facilitate applications 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, and is pleased to appear in this Annual Report for the first time.

The annual conference of Forum Farge 2014 was held in Gjøvik, Norway on 21 March. Presentations included colour deficiencies, colour in cultural heritage, architecture, and colour mixing. Invited presentations were given by Claudia Moscoso, Bruno Laeng, Edwin Verweij, Eskild Narum Bakken, Ivar Farup, Thomas Simon, Marius Pedersen, and Jon Yngve Hardeberg. The conference was an excellent forum to discuss different colour related topics.

Throughout the year members of Forum Farge have been active in miscellaneous research activities. We highlight here only a few examples.

In September 2014 Forum Farge arranged a seminar ‘Colour in the City’ in collaboration with Faculty of Architecture and Fine Art at the Norwegian University of Science and Technology. The seminar was divided into three parts; theories and principles for colour selection, colour design in practice, and colour design from past to present. The seminar included presentations from Jørg Niederberger, Karin Fridell Anter, Alex Booker, Lino Sibilliano, Barbara Matusiak, Mette Bye, Kine Anglo, Marius Pedersen, Mette L’Orange, and Michael Lommertz.

The Norwegian Colour and Visual Computing Laboratory at Gjøvik University College is another group with a high level of activity. They are currently coordinating a large research project “HyPerCept – Colour and Quality in higher dimensions”, that deals with many topics from the visually impaired to colour in imaging devices. They have also been working on the Colourplay project, where the goal is to create a game to educate the general public about colour and at the same time collect research data.

Bergen Academy of Art and Design has worked on a larger project called ‘Colour for Dementia’. They have put theory into practice, where a whole floor in a nursing home (Gullstøltunet) for dementia is being painted according to new theories and a special paint mixed in Switzerland, from pigments and binders, for maximum brilliance. Mette L’Orange and research fellow Erland Bleken have worked on the project together with Helle Wijk from Sweden and master students at the Bergen Academy of Art and Design.

The Light & Colour Group at NTNU has been very active in 2014. They started to work on the issue of ‘colour in the urban context’, by carrying out a survey of the outdoor surface colours used on existing buildings in the city centre, analysing them and preparing guidance for future colour design in Trondheim. This activity was in close collaboration with the city municipalities, and will continue in 2015. There have been three PhD projects under way during 2014 that include research questions connected to colour in architecture.

Interested audience at the seminar ‘Colour in the City’.

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Picture of an experiment carried out by Light & Colour group, NTNU. How is the perception of surface colours influenced by daylight? Participants could look into a scale model representing a living room and enjoy the view toward Trondheim brewery buildings.
APCor is the Portuguese representative of the AIC. The Portuguese Colour Association celebrated ten years of activity in early 2014 with a lunch that brought together the current direction, most of the founders and some dedicated and colourful members.

2014 International Colour Day
Our Association celebrated the 2014 International Colour Day with a Seminar held at Oporto in one of the new hospitals of this city: Hospital/Escola Fernando Pessoa. Our theme this year was Light and Colour as fundamental factors for comfort, healing and wellbeing in health-care spaces.

Appointment of APCor Honorary President
At the International Colour Day seminar, the APCor Board appointed Prof Maria João Durão as its Honorary President, due to her decisive role in the founding of the association, in promoting its quality and dissemination and in the divulgation of the colour phenomenon in Portugal and abroad.

Member Activities
The Portuguese Colour Association continued to be represented by its members at the main forums of colour discussion throughout the world:
Cristina Caramelo Gomes, Cristina Pinheiro, Fernando Moreira da Silva, Margarida Gamito and Miguel Aboim presented oral communications at AHFE 5th International Conf on Applied Human Factors and Ergonomics, 19–23 July, Krakow, Poland.
Ana Pais Oliveira and João Pernão presented oral communications at the X International Colour Conference held in Genova, Italy, 11–12 September 2014. Dulce Loução was a member of the Scientific Committee.
Felipa Nogueira, Helena Soares, Maria João Durão, Margarida Gamito, Rozelanne Bezerra and Zélia Simões were accepted to present communications at the AIC2014 Interim Meeting held in Oaxaca, 21–24 October 2014, Mexico.

AIC2018 LISBON
At the AIC Executive Committee meeting, during the Oaxaca AIC2014, the APCor Honorary President, Maria João Durão presented with success the Portuguese application to host the AIC2018 Interim Meeting. AIC2018 LISBON will have as theme: COLOUR AND HUMAN COMFORT and will be held in this beautiful city 25–28 September 2018.
Up until now, three researches of Slovenian colour preferences have been done in different timeframes, separated by decades. The first showed the preferences of the entire Slovenian population, by famous Slovenian psychologist Anton Trstenjak. The three most preferred colours were Blue, Red and White-Gray.

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Blue</td>
<td>Red</td>
<td>White</td>
</tr>
</tbody>
</table>

Blue is the most popular colour among youngsters.

The second research, conducted by Max Tusak, exposed the colour preferences of younger Slovenians. This was a more structured study, observing male and female aspects, as well as different types of schools. The overall result among eight different groups was similar to the previous only in that the most preferred colour was Blue (see figure above).

The third research, conducted by Andrej Skrbinek and Vojko Pogačar, has exposed an indirect form of colour preferences via histogram analysis of colours on municipal flags. In the past 50 years, Slovenia has gained a multitude of new flags for new municipalities, based on local features or attractions, designed in accordance with modern trends. On the other hand, some of the municipal flags represent the heritage of the past, their historical traditions and well-known local features, identity, etc. These ‘older’ flags were based on vexillological and heraldic principles. This research shows a similar result as previous studies in all decades, with Blue in first place of all Slovenian colour preferences. This is no surprise, given the predominant colour of the national flag.

In June 2014, several members of the Slovenian Society for Colours participated in the 7th Symposium of Information and Graphic Arts Technology, which took place at the University of Ljubljana. A wide spectrum of topics was presented, such as: How much the measuring conditions may influence the calculated colour; FTIR spectroscopy of magenta ink-jet prints after exposure to light; Influences of the Gestalt principle on the system of morphological laws; A novel database for evaluation of digital images; and Braille text and raised images used in books for children who are blind or visually impaired.

A new book Reproduction of Colour and Colour Management was published, the first Slovene book in the field of colour management for students of graphic and media technologies, researches, designers and printers. The authors were Dejana Javoršek, Tadeja Muck and Igor Karlović. In the first part of the book, the basics for understanding colour management are described, with theory of colour, colour metrics and colour appearance models, various colour management systems, operating systems and popular graphic programs. The second part brings together topics related to the application of colour management. Each chapter presents a detailed description of making colour profiles and evaluation of their quality for each separate device. By the end of the book the reader has a full understanding of the colour management workflow.
2014 was an active year for the Committee. A new design for our website was proposed, where advertisements and news related to colour are published for all the members (http://www.sedoptica.es/SEDO/color/). In addition, a Facebook profile was created for open access and networking around the world (https://www.facebook.com/pages/Comité-del-Color-Sociedad-Espanola-de-Optica/1408069079440805).

On the occasion of the International Day of Colour, a competition was opened with the purpose to find an image, a logo, to represent our Committee. Proposals are still welcome and it is possible to find all the information related to the competition on the website.

During 27–28 October, the Colour and Vision Group of the University of Alicante (http://web.ua.es/en/gvc) hosted the second BYK-Gardner Iberian Automotive Meeting (http://web.csidiomas.ua.es/congresos/iberianautomotive/2014/index.html), chaired by Dr Francisco M Martínez-Verdú. This meeting had a similar structure to the previous one and was organised by the multinational company BYK-Gardner, expert in chemical additives and colour instruments. Different topics highly demanded nowadays, at the border between research and innovation, were presented.

It is worth noting that the European Commission selected a new international master course about colour science and technology proposed by some members of the committee. It is called ‘Colour in Science and Industry (COSI)’ and includes participation of teachers of University of Granada, together with the University Jean Monnet in Saint Étienne (France), University of Eastern Finland in Joensuu (Finland), and Gjøvik University College (Norway).

Finally, we would like to emphasise the research work conducted by the Optics and Visual Perception Group from the University of Alicante and the University of Valencia http://web.ua.es/en/gopv/optics-and-visual-perception.html They have designed a configurable stand-alone Matlab-based software to simulate dichromatic perception of video streams. The software allows the user to upload a video sequence and to process it using different dichromatic colour vision models and viewing conditions. The output video may be generated in different spatial and temporal resolutions and file formats.

Furthermore, during 2014 our Committee has started the arrangements for our next National Congress to be held in summer 2015 at the University of Vigo (Spain) chaired by Dr Humberto Michinel. Some members attended IS&T/SPIE Electronic Imaging 2014 (San Francisco, USA), the 23rd Congress of International Commission for Optics (ICO-23), (Ourense, Spain) and II Congreso Internacional de Investigación e Innovación en Ingeniería, Ciencia y Tecnología de Alimentos (Medellín, Colombia).

Another interesting study is related to a multichannel ATD model: the reliability of perimetric contrast sensitivity measurements separating the achromatic, the red-green and the blue-yellow postreceptoral mechanisms was analysed. The results obtained showed good repeatability and reproducibility, although with BY stimuli the repeatability was slightly worse. Future studies on the diagnostic validity of this device will be based on the fact that changes of sensitivity can be compared by means of a visual single task, contrast sensitivity measurement, using a common metric.
The Swedish Colour Centre Foundation has around 150 individual members and 25 organisational members. Its mission is to: 1) Encourage scientific research within the colour field of interest for industry, education and people working with colour; 2) Spread new knowledge and experience within the field of colour; and 3) Be a national centre for colour and colour research. Welcome to visit our Colourspot www.colourspot.org We are keen to have more visitors!

Celebration of Swedish Colour Centre 50th anniversary!
During 2014 we celebrated our 50th anniversary with a lot of different activities. We launched a new award ‘Prisad Färg 2014’ for students of design, architecture, graphic design, advertisement and fine art. The competition involves colouring for example a room, a product, an environment, a phenomenon and is divided into two parts: 1) Choosing colours with inspiration from five different decades, 1960s, 70s, 80s, 90s and 2000s, and applying them in the present; and 2) Looking ahead … what colours will we have during the current decade, the 2010s, and why?

The Award was announced during Spring 2014 and the three best contributions were awarded in a prize ceremony during a special celebration seminar ‘Where have all the colours gone?’. The 200 participants considered how we use colours today and why we are ‘afraid’ of using colours:
- in our design and architecture schools
- in our environments like homes, offices, work sites etc.
- in our cityscapes
This was the start for our new focus to attract design and architecture students to the importance of colour studies.

Activities for the International Colour Day (ICD)
This year we celebrated the International Colour Day on March 20th at Ogeborg, a very colourful and inspiring carpet manufacturer of carpets and rugs. We listened to the highly committed owner Helene Ogeborg tell how colour is a great source of inspiration in their design work.

Members Meetings
In January we had the unique opportunity to listen to a wonderful and most appreciated colour talk ‘Let there be flowers!’ by Gunnar Kaj, who has designed the floral arrangements for fourteen Nobel Banquets in Stockholm City Hall. He has exhibited at many Swedish palaces and in different venues all around the world.

Gunnar Kaj preparing one Nobel banquet. The flowers are placed as if growing up out of the table.

In May we arranged a guided tour at Aula Medica, the Karolinska Institute’s new 1,000-seat auditorium, with the Campus architect, who talked about the building and its architecture. Wingårdh architects have designed an extraordinary building with a very specific form and geometry.

Aula Medica, exterior glass wall with myriad reflections inside.

In September we had a guided tour of Rosendal Palace which is located at the Djurgården hunting park and was built in the 1820s for King Karl XIV Johan, the first Bernadotte. The palace with its creamy pink exterior stands today largely as it did in Karl Johan’s lifetime, which makes Rosendal a unique documentation of the European Empire style.

The year’s last meeting was in November, the annual meeting, which ended with a colour talk titled ‘Do paintings need white walls?’ presented by Claes Moser, antiques expert. This seems to be a misunderstanding! The opposite is the reality. The correct wall colour will instead highlight the art.

Berit Bergström, Secretary, Swedish Colour Centre Foundation
Since March 2014 Pro/colore Board Members and the Head Office have mainly focused on organising the trade fair exhibition ‘appli-tech’ that will be held in February 2015 in Lucerne. However, Pro/colore has continued to provide a wide range of events that have been greatly appreciated and enjoyed by Pro/colore members and other interested people.

The newly conceived and modern website www.procolore.ch was launched shortly before the beginning of 2014. Some of its features include a continuously updated colour agenda and job board. Important activities that the Board Members continued during the year are maintaining contacts with institutions and associations in Switzerland and abroad (such as Deutsches Farbenzentrum and AIC) as well as carrying out lobbying work with industry and educational partners.

We warmly thank our members, partners and patrons for their annual subscriptions, which ensure the operations of our special platform, providing the exchange of information among colour experts as well as many exciting events. We are grateful to have the assurance of their support in future.

Guided tour of the art library at Sitterwerk St Gallen

- On 18 September members enjoyed a guided visit to the Kunstgiesserei und Werkstoffarchiv Foundation Sitterwerk in Sittertal, St Gallen, together with Julia Lüttolf who is responsible for the archives. She showed the tour group around the art library, product material archives, foundry for artworks, restoration centre and photographic laboratory. At the end of the visit an apéritif was served at Kesselhaus.

- On 21 October Saint-Gobain Weber AG in Volketswil ZH organised the workshop ‘Compendium Façade’, focusing on colour in architectural design with a compendium of basic technical guidelines, trends and new developments in façade design. The workshop was conducted by Martin Frei, Product Manager Façade/Wall and included a buffet lunch.

- On 10 November Anita Wanner, painting conservator and Head of Colour Course, held the workshop ‘Colours & Pigments’ for making your own colour fans with pigments. She also gave an introduction to the history and production of pigments and showed participants around the materials library for pigments at the Lucerne University of Applied Sciences and Arts HSLU.

Demonstration for ‘Colour, Style, Appearance’ by Susanne Zumbühl

In 2014 around 300 members supported Pro/colore. Nevertheless, Board Members as well as regular members are continuing to recruit new members, an endeavour that is not only facilitated by the new website but will also be furthered by an upcoming Pro/colore brochure to be released in February 2015. An increase in the number of members would broaden the foundation of the association and therefore increase the potential for exchanging experience and knowledge in the important field of colour.

The General Assembly was held on 3 April at the Haus der Farbe in Zurich-Oerlikon. After statutory business had been conducted, a guide showed the work of the school and Susanne Zumbühl, a human resources expert, presented a talk ‘Colour, Style, Appearance’. Further meetings were organised with around 110 participants:

- On 8 May there was a visit to the exhibition Tattoo & Skin to Skin at the Gewerbemuseum in Winterthur including a guided tour by Mario Pellin, research assistant at the Museum, concluding with drinks and snacks at Grand Café du Musée.

Materials library of pigments at the Lucerne University.

More information concerning all these events, including detailed reviews, is available at e-Lettera and also on the Pro/colore website.
The Color Association of Taiwan (CAT) was founded in 2001, and admitted to the AIC as a regular member in 2009. 2014 was a wonderful and meaningful year for CAT.

Taipei City Color Survey
Continuing CAT efforts on environmental colour design helped people in Taipei city to understand better how colours affect everyone’s daily life and living space. The Taipei City Color Survey was conducted by Prof Tien-Rein Lee from May 2013 to June 2014. The project investigated the urban colour space, aiming to establish a city colour order system and appearance of district colour. It proposed an urban colour database and application manual. The Color Survey contributed to general understanding of colour aesthetics in urban spaces, and spread ideas for developing a concept of city colour identity.

In order to help the citizens of Taipei City get a better understanding about colour concepts and urban space, and under the guidance of the Taipei City Government Developmental Office, CAT organised a series of workshops in February, March, and December. These events introduced the underlying principles of the concept, explained colour characteristics, and showed possible colour applications in everyday life and the living environment. It informed about the palette of colours that can be found in Taipei, and ideas about colour and the aesthetics of urban space.

‘City Color Designer’ workshops
Two creative colour workshops were held on 6 December at the URS 27 Hua Shan Open Air ground and Hua Shan 1914 Creative Park, and a total of 104 participants attended.

Asia Color Association Conference
Under the motto ‘Urban Color for Life’, ACA2014 was hosted by CAT in Taipei on behalf of the Asia Color Association (ACA) 4–7 September. The conference maintained its spirit and improved its international character, and expanded the range of research fields and innovative ideas among colour groups from Asian countries. The opening speech was delivered by Prof Mitsuo Ikeda (Japan). Other keynote speakers included Prof Tien-Rein Lee (Taiwan), Prof Young-In Kim (Korea), Prof Naoyuki Osaka (Japan), Prof Chanprapha Phuangsuwan (Thailand), and Dr Vien Cheung (Great Britain). A total of 42 oral presentations and 34 poster exhibits were given.

AIC2014 Interim Meeting, Oaxaca
Prof Tien-Rein (‘TR’) Lee and Prof Yuh-Chang (‘Bob’) Wei led the CAT delegation with their customary style and enthusiasm to attend the AIC Interim Meeting in Oaxaca, Mexico (see page 9). They presented a number of papers and posters in the sessions on urban colour design, relating to the survey in Taipei.

Workshops held at Hua Shan Creative Park
ACA2014 reception party held on Tamsui River boat cruise.

Prof Bob Wei in Oaxaca

Workshop: ‘Understanding of Taipei City Color’
2013 with Dr C Phuangsuwan as the Director and four other researchers including Prof M Ikeda, a former president of AIC, and a visiting researcher Assoc Prof M Kawasumi from Meijo University in Japan. In 2014 CRC organised several lectures by inviting distinguished speakers from abroad, mostly from Japan. Undergraduate students of RMUTT learned the importance of colour science and design and what is going on in other countries in these fields.

In September, the CRC organised a visiting seminar on ‘Color in daily life’ at Rajamangala University of Technology Lanna in Chiangmai for undergraduate students and staff. In December, the second CRC visiting seminar on ‘Why colour is important in our life’ was held at the Industrial University of Ho Chi Minh City (IUH), Vietnam, under sponsorship of the Asia Color Association (ACA) and Konica Minolta. The lecture included colour science and design for students and staff. In addition, a workshop on colorimetry and how to measure colour was presented. An exchange meeting was held after the lecture for further cooperation. The visiting lecture certainly encouraged the staffs of IUH for education and research in the field of colour. The Director, Dr Phuangsuwan, plans to visit Cambodia as the third CRC visiting seminar. Her idea is to visit ASEAN countries one by one to distribute knowledge of colour science and design and to encourage them to join the field. It is hoped that both of those countries will eventually join ACA and AIC.

Members of the Color Group of Thailand (CGT) joined the staff of Chulalongkorn University to give seminars and workshops in colour for package design for the communities of Saraburee Province (200 km north of Bangkok) several times last year. The students were farmer groups, housewife groups and Small and Medium Enterprise (SME). The objective was to show them how important packaging is to boost the added value of OTOP products. OTOP or ‘One Tambon One Product’ is a local entrepreneurship stimulus programme designed by the Thai Government. It aims to support locally made and marketed products in each Thai tambon (sub-district). This programme encourages village communities to improve local product quality, packaging and marketing, by selecting one superior product from each tambon to receive formal branding as its ‘standard OTOP product’. Products from intricate silk pieces to simple mobile phone bags are produced in Northern Thailand. Pottery and ceramics are not only sold but you can go to the villages and see them being made and fired. Food products from rice to juices and even wine are made as part of Tambon projects.

During 2014 staff at the Color Research Center have presented many papers in conferences such as the annual meetings of the Color Science Association of Japan in May (5 papers), at the Asia Pacific Conference on Vision in Japan in November (1 invited talk and 3 papers) and at the 2nd ACA conference at Taipei in September (1 keynote speech and 4 papers). The CRC colour research domain covers psychology, colour preference for industrial products, vision of elderly people in observing LED displays, visual mechanism particularly on colour and lightness constancy, appearance under LED illumination, and the tunnel vision of elderly people. The CRC was named as one of the centres of excellence of RMUTT for research and will continue actively in education and research in the field of colour.
The ISCC Color Name Test was a simple and fun experiment about how different people name a color.

Do you think this color is more blue or green (you must choose only one or the other)?

<table>
<thead>
<tr>
<th>Select one of the colors</th>
<th>Are you male or female?</th>
</tr>
</thead>
<tbody>
<tr>
<td>☐ Blue</td>
<td>☐ Male</td>
</tr>
<tr>
<td>☐ Green</td>
<td>☐ Female</td>
</tr>
</tbody>
</table>

Results showed that men selected blue with a slight edge over green at 60%/40% whereas females selected blue at 75%/25%.

The ISCC ‘Name the Most Popular Color Test’ asked: “Have you ever thought about what the most popular color is in your everyday work? The ISCC would like to know! This is an informal survey, and just for fun, so please do not stress over your answer.”

We received 20 responses (19 unique), which unsurprisingly covered a wide gamut. Keeping a casual attitude, we converted each entry to approximate sRGB values for ease of electronic display. The following graphic shows each color against a neutral grey background.

Grass Green  Munsell 10YR 8/8
Munsell 58G 6/10  Black
British Racing Green  White
Munsell GY 7/10  Munsell 5RP 8/5
Pantone 15-5519 TCR  OSAsCS 0-4-4
Munsell 5G 8/6  Munsell 5R 4/12
Munsell 2.5PB 2/6  Pantone 485C
Macbeth Foliage  Pantone 187
Pantone 7462C  Pantone 4R 3/12
Munsell N5

“Popular Color” Entries in a*b* Space

Entries included several which are clearly red, quite a few that are green, cyan, or blue, plus several neutrals. They are plotted as CIELAB values in a* vs b* (ignoring luminance).

Upcoming Events

The Color and Appearance Division of the Society for Plastics Engineers (SPE/CAD) and the ISCC will jointly host a color conference at the SPE/CAD RETEC® at the Westin Indianapolis, 4-6 October, 2015 in Indianapolis. This event will bring together designers, colorists, color engineers, color scientists and academics from around the world. It will be the largest international color conference held in the USA in 2015. Details will be available on the ISCC website at www.iscc.org
The International Association of Color Consultants/Designers – North America is the English-language chapter of the IACC. We are based in the United States but comprise colour professionals from around the world. Our members are professionals who have chosen to become more educated about colour, its proper application, and the human response it elicits. Knowledge, credibility, and validity set IACC-NA members apart from other colour professionals by our commitment to integrating the art and science of colour.

2014 marked the 20th anniversary of the IACC-NA and planning started early for the Annual Meeting and Color Summit that took place in San Diego in April. We celebrated by looking back to our past, our present status and our future endeavours for the organization! Design of our new website www.iaccna.com began in 2013. This was launched in the spring of 2014 and many of our members have used it as a tool for their own businesses. Throughout the year, several members were interviewed for magazines, radio shows, online forums and local newspapers. Many of them were contacted because of their profiles on the website. Also introduced this year was the IACC-Italia’s COLOR DATE Magazine. This international publication featured Frank Mahnke and several works by IACC-NA members in the first issue.

Color Consultant Amy Woolf of Northampton, Massachusetts, has for two years taken top honours in a regional reader’s poll for Best Interior Designer. Her work in colour with homeowners, builders, property managers and business owners has gained her a following of happy clients and the respect of her community. She is currently developing an exterior colour scheme for a cohousing project consisting of 24 individual homes and one common house.

Helen Gurura, Vice-President of the IACC International Committee representing South Africa, ushered in ‘Functional Colour’ to the local architectural community via an ‘Art & Architecture’ seminar, organised by award-winning Walls & Roofs in Africa Magazine, in conjunction with the Gauteng Institute for Architecture. Her presentation, aptly entitled, ‘Colour Is More Than Just Decoration...’ led to several key-note editorial features in 2014. Helen was also honoured to be chosen as a member of the AIC’s 2015 Technical Programme Committee.

Karen Kurokawa, of Impact Design Inc in Culver City, California, along with her husband, architect Shuji Kurokawa, stay quite busy in both the States and Japan. In 2014 they saw completion of the three-building Park Tower Takinogawa complex (245-unit high-rise condominium, 364-unit mid-rise apartment, low-rise commercial building and central courtyard) and Premist Hamadayama (67-unit condominium) on a challenging in-fill site, both in greater Tokyo. The buildings were designed to support a variety of lifestyles with a modern sensibility, while satisfying the city’s requirements for the façades to reflect the surrounding existing building heights and adhering to the city’s strict historically-based colour codes.
INTERNATIONAL COLOUR DAY (ICD)

This special report, compiled by Prof Maria João Durão, describes some of the diverse activities undertaken by AIC members around the world to celebrate ICD in 2014.

COLOUR SOCIETY OF AUSTRALIA

The Colour Society of Australia (CSA) celebrated the ICD with a multimedia event ‘Colour of Music’ in the central mall of the City of Sydney. The inaugural lighting event in the mall, as well as the catenary lights hung vertically along the pedestrian way, can be seen in the photo. In order to create a chromaesthetic experience, pre-recorded classical and contemporary music influenced the ever-changing mood, synchronising the rhythm and colours of the lights.

THE COLOUR GROUP (GREAT BRITAIN)

The Colour Group organised an all-day event at Omnibus, the new arts centre in Clapham, south London. It was led by artist Phillip O’Reilly with sessions introduced to the public by Dr Valérie Bonnardel, Chairman of the Colour Group, and Marie McCarthy, Artistic Director of Omnibus. The event had the support of the National Physical Laboratory (NPL) whose Outreach Manager, Andrew Hanson, introduced the electromagnetic spectrum in his talk *What is Light? What is Colour?*
INTERNATIONAL COLOUR DAY (ICD)

Shirine Osseiran displayed an exhibition of prints. Vien Cheung from the University of Leeds performed colour vision tests throughout the day. Dimitris Mylonas from University College London and Nicoline Kinch of Kolomondo engaged the public in some interactive games of Colour Matching and Colour Naming and Puzzles and Experiments. The great success of the event has encouraged the Committee to consider staging another multifaceted celebration at the same venue in 2015: International Colour Day in Clapham.

GRUPPO DEL COLORE – ASSOCIAZIONE ITALIANA COLORE

In Milan, Renata Pompas and Lia Luzzatto together with students of Digital Textile Design course organised the event Synaesthesia, at the Lecture Hall of AFOL Moda-Milano. They wrote and directed the video Synaesthesia. Laura Del Zoppo was also responsible for the direction and production of this evocative video that was played continuously to the public: www.youtube.com/watch?v=mZWLHey7jEQ The video represents associations with colours, their symbolic aspects, as well as sounds and tastes. Viewers experienced visual and auditory sensory responses: the taste of the red, the sound of yellow, the significance of blue, and so on.

‘Thought’ from the video ‘Synaesthesia’.

Various reception tables were also set up, where the audience shared their own synaesthetic perceptions. At one point, participants were invited to put their hands inside the openings of three cardboard boxes with three different sensations (soft, cold and rough paddings), and to match each cardboard box with one colour among the six proposed colours. Other experiments with synaesthesia included olfactory descriptions, gustatory descriptions, the Stroop effect, and some related with de Bono’s Lateral Thinking.

Children participating in the seminar ‘Light, Colour and Health’.

ASSOCIAÇÃO PORTUGUESA DA COR

The Portuguese Colour Association celebrated the ICD at the Hospital-Escola Fernando Pessoa in Gondomar, near Porto with an event organised in collaboration with the University Fernando Pessoa. The Seminar ‘Light, Colour and Health’, proposed by Prof Manuel Pais Clemente, Porto Faculty of Medicine, was presided by Prof Salvato Trigo, University Fernando Pessoa Reitor, and by Prof Margarida Gamito, President of the Portuguese Colour Association.

The programme focused on the roles played by light and colour in the field of health such as new challenges for environmental design, immaterial aspects of space/colour, as well as health and comfort as variables. Other topics dealt with architectural design for hospitals, colours for way-finding, vision and eye tracking, and more specific issues of symbolic colour relations of hospital clothes, colour in the process of recovery from melancholy, colour and Vedic tradition, coding for colour deficiency, surgery colour aesthetics and cosmology. The event brought together health professionals, academics and students from undergraduate levels to doctoral studies, in the understanding of the importance of colour to health and to the construction of healthy environments.

STIFTELEN SVENSKT FÄRGCENTRUM

Sweden celebrated the ICD in the showroom of Ogeborg. The owners, Helene Ogeborg and Ellen Axelsson, explained how colour is a great source of inspiration in their design work. The family company was founded in 1963 by Paul and Gull-Britt Ogeborg. Today, the company is run by daughter Helene and her husband Leif. Working in the realm of architecture and interior design, the company’s three key concepts are Quality, Environment and Service and their mission is to deliver long-term sustainable floors for offices and other public spaces.
Ogeborg has just finished a book/directory with handwoven and hand tufted rugs to be used in offices and public spaces. In this meeting many different materials were shown, like tiles, façades and other ‘non-textile’ materials together with wool, flax and eucalyptus. These photos are from a collection of rugs inspired in a study trip made to colourful Portugal.

SLOVENSKO ZDRUZENJE ZA BARVE

The Slovenian Society for Colours organised the ICD in Zagreb with the newly founded ‘Croatian Colour Society’. In the past, some members of the Croatian Society were regular members of the 24-year-old Slovenian Society. They participated with two proceedings: ‘Colours in Architecture’, by Alenka Debenjak and ‘Periodic Colour Model and Gestalt’ by Vojko Pogacar. In the last fifty years, Slovenia gained a multitude of new flags that appeared due to new municipalities, based on local features or attractions, designed in accordance with modern trends. On the other hand, many municipal flags represent the heritage of the past, with historical traditions (see page 29).

COLOR ASSOCIATION OF TAIWAN

The Color Association of Taiwan (CAT) developed an online digital colour clock based on the design of the International Colour Day’s logo. Under the motto ‘Colours around the clock’, 24 colours tick around the clock’s two circles in its steady rhythm of time: one clockwise, one counter-clockwise, from dark to light, in bright and soft colours. The application is placed on the CAT website www.color.org.tw, and was sent to colour friends worldwide on March 21, sharing a moment of colour with the international colour community. The time shown under the logo is configured to match each viewer’s local time.

INTER-SOCIETY COLOR COUNCIL / USA

The Inter-Society Color Council celebrated the International Colour Day in several ways in the US. One was by remembering Albert H Munsell’s contribution to colour with his 1921 Munsell Color Order System. In ISCC News #465 Winter 2014 two surveys were promoted as part of the celebration with results posted on the International Colour Day: Survey #1 Name the Most Popular Color; Survey #2 Blue or Green? The results suggested that cool colours were more popular (see page 35).

Finally, on March 21st ISCC posted a web page dedicated to the great historical colour contributors from the United States highlighting the beginnings of colour science. See www.iscc.org/resources/HistoricColorScientists.php
AIC STUDY GROUP ON COLOUR EDUCATION (CE)

The SGCE didn’t meet in 2014 but our members were active in classrooms around the world presenting papers, giving lectures and conducting courses. Here are some examples of the SGCE members’ global activities in colour education.

In 2014-15 Università degli Studi di Milano and Politecnico di Milano, organised the first edition of the Master in Colour Design & Technology directed by Alessandro Rizzi and Maurizio Rossi, with the aim of providing in-depth training in the complex field of colour. The master’s programme has two learning phases: (1) the theory and technology of colour: cultural, historical, perceptual, colorimetry, control and reproduction, digital colour; (2) five project works to apply the acquired knowledge in professional fields: communication, fashion, interior, product and urban space design. The first cohort has 13 students, and after an internship in companies or research centres they will have the final exams in 2015.

Students of Prof Paula Csillag playing the coloured shadows game.

In September Dr Leonhard Obersacher held a colour seminar for students of fashion design at the South Chinese University of Technology / Guangzhou (SCUT) in cooperation with NCS / Sweden and Colourinsight / China. The seminar was intense, creative and challenging and (not least) very enjoyable. Leo says: “The experience of how colour can overcome culture and language barriers, bring people together and foster new friendships, for me is always the most rewarding.”

In April, Nicoline Kinch, inventor of the Kolormondo colour model lectured for florist students in Karlstad (Sweden). The florist teacher was very excited when, at the end of the day, students had the task of creating a wreath following the colour scheme of a given Kolormondo piece. According to the teacher, it stimulated them to combine colours in a new way that was both provoking and inspiring.

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In October, the colour laboratory at Lusiada University, Lisbon, led by Professor Isabel Braz de Oliveira, organised a workshop on colour in nature and urban space, led by Prof Karin Fridell Anter. The 12 participants were all professionals within the fields of architecture, art, engineering and paint manufacturing. The mixture of professions and experiences among the participants was an important starting point as it allowed all of them to learn from each other and widen their professional network. The main task of the workshop was a colour analysis of the fishing village Trafaria just outside Lisbon, now published in a report from the colour laboratory.

Exercises with colour order systems during the Politecnico di Milano Master Program in Colour Design & Technology

Leonhard Obersacher evaluating students’ work during SCUT course.

During the colour course at ESPM Design School in São Paulo, students had an opportunity to see real coloured shadows and make movements so they could interact and see how the shadows would change colours as they moved. This class was held in a dark room, the video studio at ESPM, with no windows so there would be no influence of external light.

Colour identification using NCS system in the fishing village Trafaria.
At the AIC 2014 Interim Meeting in terms of environmental colour, there was a major focus on urban colour concepts and palettes. This was very appropriate in a traditional Mexican city where the colouration of house façades is so prominent and varied.

João Carlos de Oliveira Cesar conducted a quest for urban chromatic identity in Belém. Dario Suárez* (Argentina) showed the colour concepts for Villa Carlos Paz. Other talks concerned theoretical presentations. Maria João Durão’s research on the affinities of Luis Barragán’s poetic architecture and artworks by Joseph Albers and Mark Rothko were as impressive as Tien-Rein Lee’s talk on colour for revitalising historical areas in the case study of the Red House project in the city of Taipei, based on sociologist Ernest Burgess’ Theory of Concentric Circles of 1923. Very successful too was Justyna Tarajko-Kowalska’s talk on white architecture (see also page 40).

Many other ECD members also presented their work at the meeting in Oaxaca. Former chair José Luís Caivano was invited to give the opening lecture on colour and cesia [transparency–opacity dimensions] as signs and their indexical use in nature and culture. Georgina Ortiz* (Mexico) gave the closing lecture on the symbolic meaning of Mexico’s colours since historic times. Chervreul expert and invited speaker Georges Roque* (France) dealt with colour and symbolism. Alfonso de Lucas Tron* (Mexico) presented his thoughts on the psychological and perceptive aspects of colours. Invited speaker Michel Albert-Vanel* (France) compared the meaning of basic colours across different cultures. Kiwamu Maki summarised research results on naming colours at on-line shops in Japan.

Both of Ulf Klarén’s talks were intriguing, the first on preconditions of research on the aesthetic experience of colour and the second on colour experience and adaptation. Sarah Frances Dias* (Portugal) dealt with the primacy of colour as emotion in the creative process. Simone Thereza Alexandrino Maffei* (Portugal) presented her research on the influence of colour on emotion perception. María del Carmen Puccio* (Argentina) analysed colours of art works by Antonio Berni and Alejandro Xul Solar. Elisa Cordero Jahn presented Rancagua’s project of renewing its colour façades.

Because there is no AIC study group on colour and textiles, people interested in the topic tend to be ECD members. Indeed there is a strong connection between the fields as illustrated by Gottfried Semper’s claim (1851) that non-structural enclosures like walls were said to have their origins in weaving and textiles. Thus invited speaker Renata Pompas presented her research on Mexico’s colours between stereotype and globalization. Greatly appreciated were both Paz Cox’s inquiry into innovative colour design for traditional arts and craft textiles ‘chamanteras de Doñihue’ and Maria Rosa Domper’s search for colours of pre-Columbian textiles as a source of inspiration for contemporary design. Maria Luisa Musso investigated the palette of naturally coloured cotton extending from pre-Columbian times up to the organic movement of the 1990s. Gabriela Nirino* (Argentina) talked about the history of indigo in Argentine culture. Nallely Rangel* (Mexico) presented ‘Fashion Iris’, a method for creating a colour identity in fashion.

* The twelve new members of ECD accredited in 2014.
The purpose of this Study Group (SG) 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 ranging from colour vision models to universal colour design, including colour perception of the elderly. Activities in 2014 included: 1. The number of members of the SG is 81 from 16 countries. 2. We are planning to hold our meeting at AIC2016. 3. SG homepage: http://www.okajima-lab.ynu.ac.jp/CVPSG/ 4. SG members have published/presented some papers.

For example, Dr Shoji Sunaga presented a paper entitled ‘Development of Serious Game for Learning Confused Colors for Color Universal Design’, Proc 45th Annual Meeting of CSAJ, 38(3), 270-271. The idea of universal colour design has spread by development of check tools for colour design in Japan. The next issue is how to educate a designer in the way of colour universal design. He developed a game for learning the confusion-colour combinations of dichromats. The concept is that the player’s knowledge of dichromatic confusion colours will be empirically improved by playing the game.

There are two approaches to accomplish the education of colour universal design. One is to learn the colour combinations that dichromats can discriminate. The other is to learn the typical confusion-colour combinations. Dr Sunaga adopted the latter approach. Therefore, the game player will learn colour combinations that should not be used for colour universal design. In addition, the following four features were specified: 1) The rules of the game are very simple. 2) One game lasts only 3 minutes at the longest. 3) The game has a contingency so player does not get bored. 4) The game can run on a smartphone or a tablet terminal so that the player can play it anytime anywhere.

Dr Sunaga developed the game by guessing confusion-colour combinations running on iOS. Sixteen colour patches consisting of eight confusion-colour pairs are randomly assigned to a four-by-four arrangement and are displayed. The player chooses two colour patches guessed to be a confusion-colour pair by tapping the screen. If they are a confusion-colour pair, the player can move to a next choice. Otherwise, the game will be over. The player’s knowledge of dichromatic confusion colours would be expected to improve by repetition. Comments from players who were students at the school of design, Kyushu University, were reported. Although the game attracted them, it was hard for them to complete the game. Other supplementary materials of colour universal design would be required to impart a basic knowledge of confusion colours to the player.

Researchers from the Universities of Granada and Alicante (Spain) are collaborating with Audi AG (Ingolstadt, Germany) in the development and testing of colour-difference formulas for gonoapparent materials used in the automotive industry. While conventional materials have constant colours, gonoapparent materials exhibit colour changes (usually designated as ‘flop’) when the illuminating/viewing angles are changed, and they may also have additional appearance attributes like graininess or sparkle. A visual experiment using colour samples with a systematic change of lightness flop, was reported in Melgos, Gómez-Robledo, Cui, Li, Perales, Martínez-Verdú and Dauser ‘Measuring colour differences in gonoapparent materials used in the automotive industry’, Proc 23rd Congress of Intl Comm for Optics (ICO’23), 84-123, in Santiago de Compostela. Among different colour-difference formulas tested in these psychophysical experiments, it was found that the AUDI2000 and CIECAM02 colour-difference formulas provided the best predictions of visual results, with satisfactory results also for the CIEDE2000 colour-difference formula, currently recommended by CIE and ISO.
The purpose of the AIC Study Group on the Language of Colour is to discuss and share information on colour studies spanning linguistics, semiotics and cognitive science. Key topics are colour naming, categorisation, colour synaesthesia, and semantics of colour grammar and syntax. This study group was formed in 2010, and has 77 members from 18 countries.

There were two presentations at the AIC 2014 meeting held in Mexico which were interesting and relevant. The first was ‘Colour Naming: Language and Gender’, presented by Lindsay MacDonald who was a keynote speaker. He described colour naming studies and the mapping between colour names and the corresponding perceptual regions.

Psychophysical colour-naming experiments offer a direct method of determining the mapping between colour names and the corresponding perceptual regions. It is instructive to locate the boundaries between regions, and also within each region the centroid or ‘focal colour’. Speakers of diverse languages show a surprising degree of consensus, especially for focal colours, with the inter-language differences being less than intra-language differences among speakers. Somehow these variations do not accumulate as the colour lexicon is passed on from one generation to the next, otherwise the boundaries and foci of colour categories would drift, and the consensus would not endure. It seems that all languages gravitate to an optimal set of categories and maintain them despite departures from the norm by individual speakers.

The second significant paper presented in Mexico was ‘White Colour in architecture and built environment: facts, myths and contemporary application’, presented by Justyna Tarajko-Kowalska. White is an exceptional colour and the rationales for its use in architecture have been very diverse. Different ways of applying white in architectural space can be expressed by seven specific categories: a means of protection, a symbol/idea, a light, an absence of colour, a means of expression of the architectonic forms, a counterbalance to chromatic colours, and a trademark. White is both traditional and modern, both classical and avant-garde. Simple and neutral, yet complicated and contrasting, conventional and at the same time radical, ‘naked’ but ‘dressed’, unambiguous but chameleonic, safe and pure yet dangerous and aggressive. Having such significant connotations, white will never be old-fashioned or dull.

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The Terms of Reference of CIE Division 1 are: ‘To study visual responses to light and to establish standards of response functions, models and procedures of specification relevant to photometry, colorimetry, colour rendering, visual performance and visual assessment of light and lighting.’ The Terms of Reference of Division 1 are: ‘To study visual responses to light and to establish standards of response functions, models and procedures of specification relevant to photometry, colorimetry, colour rendering, visual performance and visual assessment of light and lighting.’

There are currently 30 Technical Committees (12 Vision + 18 Colour), 1 Joint Technical Committee, 7 Reporters and 7 Liaisons, all active in Division 1. An Activity Report giving details of the membership and current activities of the various Technical Committees can be downloaded from http://div1.cie.co.at/ as can the Minutes of the 2014 meeting.

2014 Meeting
CIE Division 1 held a very successful meeting at the National Institute of Standards and Technology (NIST) Gaithersburg, Maryland, USA on 16–17 June 2014 as part of a week-long series of meetings on ‘colour’ including a meeting of ISCC and of ASTM E12 Color and Appearance.

New Publications
CIE 211:2014 Colour appearance in peripheral vision describes colour zone maps, which are contour maps that show unique hue components for the red, dark yellow, yellow, green and blue stimuli, over the entire visual expanse.

CIE 212:2014 Guidance towards best practice in psychophysical procedures, when measuring relative spatial brightness, for those planning experiments to investigate spatial brightness. It reviews procedures and experiments already carried out, making recommendations of those aspects to be considered as essential, or at least desirable, for future best practice. Factors include the size and complexity of the visual field employed in trials, evaluation mode (separate, simultaneous, sequential or successive) and biases associated with stimulus range and response mode.

Work Nearing Completion
TC1-61 The human perceptual system divides continuous colour space into discrete colour categories. If colours are chosen from discrete zones, they can be considered to have distinctly separated categorical appearances in a 3D colour space. This report will provide colour categorization maps for photopic and mesopic illumination levels.

TC1-36 Part 2 will extend the new fundamental chromaticity diagram with physiologically significant axes to provide practical colorimetric tools, in the form of chromaticity diagrams for any set of colour matching functions.

TC1-64 Terminology for vision, colour and appearance is preparing a Technical Note to present some new terms and their definitions for subsequent addition to the International Lighting Vocabulary.

TC1-63 Validity of the range of CIEDE2000 will describe work to define the application of the equation at threshold, and to CIELAB colour differences greater than 5 units.

TC1-81 Validity of formulae for predicting small colour differences will define a formula that describes visual threshold colour differences (<~2.0 CIELAB).

TC1-82 The calculation of colour matching functions as a function of age and field size will define a general procedure for the calculation of XYZ-like colour matching functions from cone fundamentals, as a function of age and field size.

TC1-85 Update of CIE Publication 15:2004 Colorimetry is working on revision of the basic CIE Colorimetry publication.

New Work Items
No new Technical Committees were recommended in the NIST meeting. This is partly due to the CIE now having set up a more rigorous procedure for the establishment of new work items that requires a large amount of preparation to be carried out before a committee can be approved.

Two Reporters were appointed in NIST. R1-61 will review the literature on the impact of white objects containing fluorescent whitening agents. This will involve liaison with the activity of the IES (Illuminating Engineering Society of North America) Whiteness Group which is looking to propose a metric for the whiteness-rendering capability of light sources. R1-62 is to collect typical LED spectral power distribution data for inclusion in the new revision of CIE 15:Colorimetry.

Next Meeting
The next meeting of CIE D1 will be as part of the 28th Session of CIE to be held at the University of Manchester, 28th June to 4th July 2015. – Mike Pointer, Secretary of CIE Division 1
19 – 22 May 2015

The Color Science Association of Japan (CSAJ) is pleased to invite you to Tokyo for the Midterm Meeting of the AIC. In 1997, we held the 8th AIC Congress in Kyoto, the historical capital of Japan. Many of you might have a good memory of that event. Eighteen years have passed since then, and now we would like invite you back to Japan, this time to Tokyo, the modern and exciting capital city.

The theme will be ‘Color and Image’. The word ‘image’ has a very wide meaning; not only a visible presentation, such as imaging devices, displays, pictures and so on, but also a visualisation of anything to the mind. So many topics of colour should be correlated to image. The following fields of colour practice will all be included in the programme at AIC2015:

- Color Science
- Computational Color Image
- Color Imaging and Video Processing
- Color in Computer Graphics
- Color Reproduction
- Color Image Quality
- Multispectral Imaging
- Colorimetry / Colorimetric Imaging
- Digital Archiving of Art
- Color Vision / Psychophysics / Physiology
- Perception of Material / Surface Quality
- Color Image Design
- Color Environmental Design
- Color, Image and KANSEI
- Cosmetics
- Personal Color and Fashion

This meeting will provide a unique colour forum, bringing together researchers, academics, students, artists, architects, industrialists, engineers, designers, computer scientists, lighting experts, media types, exhibitors and business leaders. The 17th International Symposium on Multispectral Color Science (MCS 2015) is also organised as part of AIC2015. We anticipate more than 400 delegates from all over the world.

The venue is the Ochanomizu Sola City Conference Center in Tokyo. You can easily access Tokyo from two International Airports: Narita, which handles the majority of international flights, is located 60 km north of Tokyo, while Haneda Airport is located more centrally.

The city of Tokyo offers visitors a seemingly unlimited choice of shopping, entertainment, culture and dining. The city’s history can be appreciated in districts such as Asakusa, and in many excellent museums, historic temples and gardens. Contrary to common perception, Tokyo also has many attractive green spaces in the city and at its outskirts.

The Orthodox Church in Japan “Nikolai-do” in front of Sola City.

May is the best month to visit Tokyo as the vegetation has become lush, the temperatures are still comfortable and tourist spots tend to be pleasantly uncrowded. Before, during and after the Meeting, you will enjoy the exciting city of Tokyo.

Keynote Speech
‘The gathering space’ by Kazuyo Sejima (SANAA)

Judd Award Lecture
Professor Françoise Viénot

Invited Talks
1. ‘Multispectral colour imaging: Time to move out of the lab?’
   Professor Jon Y Hardeberg
2. ‘Neural representation of colour in visual cortex’
   Professor Hidehiko Komatsu

More updated information is available at www.aic2015.org
– Prof Hirohisa Yaguchi, Chair, AIC2015 Organising Committee

Ochanomizu Sola City
18 – 22 October 2016

As the AIC2016 Organising Committee and the Asociación Chilena del Color, we are delighted to invite you to participate in the AIC 2016 Interim Meeting in Santiago, Chile.

**FIELDS AND TOPICS: CALL FOR PAPERS OPEN**
The meeting theme is ‘Color in Urban Life: Images, Objects and Spaces’. The aim of AIC2016 is to share experiences regarding the use of colour in images, objects and space, from different perspectives and disciplines, to contribute to a better usability and also to improve the quality of life in our cities.

**Relevant topics to be addressed:**
- Colour in Product Design
- Colour in Branding & Marketing
- Usability of Colour in Wayfinding
- Colour & Environment
- Architectural Colour Design
- Colour in Health & Wellbeing
- Colour Lighting in Living Spaces
- Colour in Urban Cultures
- Colour Aesthetics
- Colour Perception & Harmony
- Colour Trends in Modern Life

This will be a great opportunity for presentation and discussion, bringing together academics, designers, architects, artists, landscapists, fashion experts, lighting experts, researchers, students, exhibitors and business leaders. We anticipate that more than 300 people will attend from all over the world.

**MEETING VENUE: CENTRO DE EXTENSIÓN UC**
The meeting will be located in the heart of downtown and is easy to access through the metro and buses. The main conference auditorium is the Fresno Hall, with a capacity for 800 people. This is next to the Central Plaza Hall, an ideal place for exhibition of posters and sponsors. The Centro de Extensión has other rooms to host parallel meetings. All rooms are air-conditioned and equipped with wifi.

**CHILE: ONE OF A KIND, AMAZING FEATURES**
Chile is a destination waiting to be discovered. One of the few unexplored treasures left in the world, it is a fascinating place that offers unforgettable experiences. From north to south, from the mountains to the sea, Chile amazes for its opposite landscapes: arid desert, snow-covered mountains, fertile valleys, native forests, patagonic fjords and glaciers. All these characteristics are gathered together in a single country.

*Top of the Line Infrastructure*
Santiago offers approximately 12,190 hotel rooms, many of which are modern 4 and 5 star rating. The International Airport of Santiago is the hub for many airlines, and provides services such as food court, bar, shops, duty free and VIP Room. All these make it one of the most advanced airports of continent.

*Excellent Gastronomy*
Chilean wine is known worldwide for its body and bouquet. While the Chilean food obtains its unique flavour from the earth and the sea with tempting menus such as fresh salmon, spider crab, sea bass and patagonic lamb, among others.

*Unforgettable Experiences*
Chile offers a wide variety of outdoor activities including: archaeological trips, flora and fauna observation, hiking, horseback riding or trekking in the Andes Mountains, fly fishing, or guided tours to glaciers and fjords.

**MORE INFORMATION**
For registration and updated programme information, sponsorship possibilities, accommodation and travel details, please visit our website. We hope that you will take this great opportunity to share your colour knowledge and experience. Please remember our advice: Chile is good for you!

Ingrid Calvo, Paz Cox and Maria Rosa Domper
Organising Committee of AIC2016
www.aic2016.org  twitter: @aic2016
16 – 20 October 2017

Korea Society of Color Studies (KSCS) is pleased to introduce the 13th Congress of AIC, which will be held in the International Convention Center in the beautiful island of Jeju in South Korea. It is called the ‘Clean and Green Island’, which is appropriate for the congress theme of ‘Color and Health’, and it is one of the most beautiful destinations in Korea.

The location of Jeju is in the heart of northeast Asia and offers easy access via major cities in Asia, with over 100 domestic flights a day. An important fact of Jeju is that it has visa-free entry for 180 countries and is the only island with the UNESCO Triple Crown. The climate is wonderfully sub-tropical.

ICC JEJU is located in the Jungmun Tourist Complex, 50 minutes’ drive from JEJU international airport, with the cobalt-blue Northern Pacific stretching away to the south and towering Mount Hallasan in the north. It provides world-class facilities and equipment for any kind of conference. It also can be a Hot Spot for recreation and shopping with various natural landscapes, museums and duty-free shops. ICC JEJU has a proven capability with the organisation of more than 1,500 meetings since its opening in 2003.

Where you will stay...

ICC JEJU is surrounded by a wide range of accommodation facilities with beautiful scenery. There are about 1,440 hotels and 1,247 pensions (apartment-style condominiums) available within 10 km radius. The luxurious ICC Hotel and Resort, which opened in 2014, is connected to ICC JEJU via an arcade, and will offer a special rate for AIC 2017 (30-40% discount).

What we will do during the Congress...

Because this is a quadrennial AIC Congress we will welcome every topic related to colour in every discipline, but we particularly encourage submissions in the following areas:


**Lighting:** New Technologies, LEDs, OLEDs, Colour Rendering, Intelligent Lighting, Light for Health and Well-being, Lighting the Task, Lighting for Aging and Defective Colour Vision.

**Application:** Colour in Food, Medicine, Cosmetics, Forensics, Architecture, Environmental Design, Nature, Conservation.

What you will enjoy in Jeju...

1) Mount Halla Reserve, Geomunoreum, Seongsan Ilchulbong Tuff Cone. Because of their breath-taking beauty, these three areas known as ‘Jeju Volcanic Island and Lava Tubes’ were selected by the World Heritage Committee as the first World Natural Heritage Site in South Korea.

2) Unique cuisine and attractions, diverse museum and theme attractions, Jeju’s traditional food.

3) Traditional culture and experience, women divers museum, organic dyeing activity.

4) Every year the harvest in late October is celebrated by the Jeju Orange Festival. Events include a beauty contest (Miss Mandarin Orange Pageant), an orange product contest, and a traditional flea market.

More Information

Latest updated information is available at [www.aic2017.org](http://www.aic2017.org) – Prof JinSook Lee, Chair, AIC2017 Organising Committee
Greeting card from the Okhra Cooperative in the Luberon region, France, which conserves the knowledge and culture of the ochre industry.

www.okhra.com