Inter-Society Color Council News

ISCC PLANNING CONFERENCE

The ISCC Long-Range Planning Conference was held July 24-26, 1981 at Airlie Foundation, Airlie, Virginia. Fifteen members of the ISCC Planning Committee and Board of Directors met to discuss ways of improving the function of the Council and services to its members. A report of the meeting has been prepared, detailing the recommendations to be presented to the Board of Directors. The report, ISCC Technical Report 81-1, is included with this issue of ISCC News.

NEWS OF MEMBERS

Richard S. Hunter Honored by ASTM

PHILADELPHIA, PA. – Richard S. Hunter, president, Hunter Associates Laboratory, Inc., Reston, Virginia, was awarded Honorary Membership in ASTM.



HUNTER

Hunter was recognized during the 22 June 1981 meeting of ASTM Committee E-12 on Appearance of Materials in Providence, Rhode Island. He was cited for his professional abilities in solving appearance evaluation problems, for innovative designs of new instruments, and for leadership in standardization of measurement techniques during more than 40 years of association with numerous ASTM committees.

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Honorary Membership, one of the most prestigious awards given by the Society, was established in 1912 by ASTM, a leader in the development of voluntary consensus standards for materials, products, systems, and services. The award honors an individual of widely recognized eminence in a field of work covered by the Society, or who has rendered especially meritorious service to ASTM.

A member of ASTM since 1937, Hunter is the chairman of Committee E-12 and is a member of ASTM Committee D-1 on Paint and Related Coatings and Materials, Committee D-20 on Plastics, Committee D-21 on Polishes, and Committee E-15 on Industrial Chemcials. He is a past member of Committee C-22 on Porcelain Enamel and Related Ceramic-Metal Systems, Committee D-12 on Soaps and other Detergents, Committee D-13 on Textiles, Committee D-19 on Water, and Committee F-5 on Business Copy Products.

Hunter is one of the originators of photoelectric tristimulus colorimetry. He joined the National Bureau of Standards (NBS) in 1927, where he designed the Multi-purpose Photoelectric Reflectometer, in the late 1930's. In 1946 he became chief optical engineer of the Gardner Laboratory in Bethesda, Maryland, where he developed numerous instruments of new or improved design for measurement of color, gloss, haze, reflectance, and transmittance. In 1952, he established Hunter Associates Laboratory.

In addition to ASTM, Hunter is a fellow of the Optical Society of America. He is a member of the Technical Association of the Pulp and Paper Industry, the *Inter-Society Color Council*, the International Commission on Illumination, the American Association of Textile Chemists and Colorists, the Institute of Food Technologists, the Federation of Societies for Coating Technology, the American Association for the Advancement of Science, the Canadian Society for Color, and the Society of Plastics Engineers.

Hunter was a 1961 recipient of the ASTM Award of Merit. He also was the recipient of awards from the Federation of Societies for Coatings and Technology, the Technical Association of the Pulp and Paper Industry, the Optical Society of America, the Inter-Society Color Council, and George Washington University Alumni.

A native of Washington, D. C., Hunter received his B.A. degree in psychology and physics at George Washington University in 1937.

Robertson earns CSC Merit Award

As the occasion arises, members of the CSC may be recognised for their outstanding contributions by receiving the CSC Merit Award. At this year's annual meeting, Alan Robertson became the fourth member of the Society to be so honored.

Alan has just completed his term as President of our Society. Previously he has been the Newsletter Editor and Directorat-Large. In addition, he chaired and organized the highly successful Annual Meeting held in Ottawa in 1976. A constant contributor to the Newsletter, and to annual meetings, founding member of the Society, member of the Board of Directors of the Inter-Society Color Council as well as the Association International de la Couleur, Alan is a most deserving recipient of this award.

Previous recipients were H.M. Krusberg, G. Wyszecki and V. Wilensky.

Peter Kaiser

Reprinted from the newsletter of the Canadian Society for Color, Vol. 8, No. 3, July 1981.

Announcing a Special Award on Color

The announcement of a special award on color has been received. An attractive folder presents the following information:

THE FABER BIRREN AWARD For Distinguished and Creative Expression with COLOR

Governed and Administered by STAMFORD ART ASSOCI-ATION, Stamford, Connecticut

FABER BIRREN, a native of Stamford, Connecticut, has had a lifelong interest in the subject of color. He has authored over two dozen books on color, scores of articles, and has lectured widely both here and abroad. He has established and endowed at Yale University a notable library of rare works on color, assembled by him over several decades. This, with his more recent Award, has given him the pleasant opportunity of inspiring and encouraging others to pursue the fascinating subject to which he has devoted a successful career.

THE AWARD, endowed in 1981, is to be presented annually or biennially at the discretion of the Stamford Art Association. It will consist of a monetary honorarium, plus a certificate, plaque or medal as a graphic keepsake for the recipient. Any of the visual arts will be eligible, be it painting, engraving, design, graphics, sculpture, textiles, ceramics, photography, illumination. Procedures for making the award to a single or body of work will be determined by the directors of the Stamford Art Association and may vary from year to year as desired.

The first exhibition will be held November 7 to 30 at the townhouse headquarters of the Stamford Art Association, 39 Franklin Street, Stamford, Connecticut 06905. The initial award will amount to a cash honorarium of \$500, plus a graphic certificate as a keepsake for the winner. This project has been endowed by Faber Birren and will continue on an annual or biennial basis indefinitely. Cash payments in the future should exceed \$500.

NEWS OF MEMBER-BODIES

Color Marketing Group (CMG)

The Color Marketing Group held its semiannual meeting at the Dutch Inn, Lake Buena Vista, Florida, May 17-19. The program featured reports on design trends and involved members in workshops to develop "Color Directions-1983," the Group's color forecast for industries represented in its broad-based membership. The conference was titled "Future For Color."

Offering a multi-industry view of design trends and sources, the program opened with "Market Reports," the result of CMG's Design Directions Committee's examination of markets and major shows for Fashion, Domestics, Wallcoverings, Carpet, Upholstery and Automobiles. Presenters were: David Byers, by Design; Sharon Clarke-Fodor, L.E. Carpenter; Robert V. Dale, Karastan; H. Josie Harkness, J.P. Stevens; Ann Tamura, Burlington Mills; and David Wheeler, Ford Motor Co. Each discussed the new looks by style category, the designs within each category, scale, materials, texture, and color.

The Marketing Group members spent the major portion of the three day conference in Color Directions workshops developing a consensus of expected consumer color choices for two years ahead. The resulting palette will be published in the fall as "Color Directions-1983."

A special workshop was held for non-members as an introduction to CMG's Color Directions forecast process and for cross industry exchange of information and ideas.

Further highlights of the program included presentations by lighting designer, James Nuckolls, I.A.L.D., and keynote speaker, Robert McCall, artist and futurist.

Future meetings were announced: the fall semiannual meeting will be held at the Fairmont Hotel, Denver, CO, October 11-13; a Western Regional meeting on August 21st at the Biltmore in Los Angeles; and a Northeast Regional meeting at the Grand Hyatt in New York City on September 19th.

Ann Dillon

Chairman, CMG Delegation

Dry Color Manufacturers' Association (DCMA)

1981-1982 Meeting Dates

DCMA would appreciate your including the dates of its meetings in your publication's calendar of industry meetings. The date and location of DCMA meetings for Fiscal Year 1982 follow:

November 4, 1981	DCMA Monthly Luncheon Meeting, New York Athletic Club, New York
December 2, 1981	DCMA Monthly Luncheon Meeting, New York Athletic Club, New York
January 6, 1982	DCMA Monthly Luncheon Meeting, New York Athletic Club, New York
Febraury 3, 1982	DCMA Monthly Luncheon Meeting, New York Athletic Club, New York
March 3, 1982	DCMA Monthly Luncheon Meeting, New York Athletic Club, New York
April 7, 1982	DCMA Monthly Luncheon Meeting, New York Athletic Club, New York
May 5, 1982	DCMA Monthly Luncheon Meeting, New York Athletic Club, New York
June 13-16, 1982	DCMA Annual Meeting, The Greenbrier, White Sulphur Springs, West Virginia

DCMA Annual Meeting

Richard Oudersluys (Ferro Corporation), Marv Gallisdorfer (Ridgway Color Company), and Ted Potter (Shepherd Chemical Company) were elected to three-year terms on the Board of Governors of the Dry Color Manufacturers' Association (DCMA) at the association's 51st annual meeting this month at The Greenbrier, White Sulphur Springs, West Virginia.

The June 14-17 meeting included educational sessions on

the economy and the work of the DCMA Ecology Committees. The keynote speaker was Thomas Hopkins, Deputy Administrator of the Office of Information and Regulatory Affairs, Office of Management and Budget. Mr. Hopkins spoke on past regulatory trends and the Regulatory Relief Program of the Reagan Administration.

C. W. Myers, Acting Director of the Office of Economic Analysis, Policy, Planning and Analysis, U.S. Department of Energy commented on energy resources and their effect on the economy, as well as energy sources for the future. The DCMA Ecology Committee reports were presented at the Annual Ecology Forum, which was supplemented this year by a special Board of Governors meeting with Ecology Committee chairmen. This session provided chairmen an opportunity to discuss special areas of concern and projections of future areas of endeavor with the Board.

The Association's Annual Business meeting and Monthly Board meeting also took place. J. Lawrence Robinson was reelected as Executive Vice President and Secretary-Treasurer of DCMA.

The DCMA is an industry trade association representing small, medium and large pigment color manufacturers throughout the United States and Canada, accounting for approximately 95% of the production of color pigments in this country. Foreign pigment manufacturers with sales in the United States and Canada and domestic suppliers of intermediates to the pigments industry are also members of the Association.

Illuminating Engineering Society

Lighting Design & Application, the popular lighting magazine published by the Illuminating Engineering Society of North America announces its first Directory of Lighting Equipment & Accessories. More than a listing of products, this 65 page magazine is a comprehensive compendium of nearly all forms of lighting equipment, accessories and manufacturers including: Light Sources, Luminaires/Fixtures, Lighting Accessories/ Materials, Product Applications, Manufacturer's Listing. The Directory is broken down into categories which can be crossreferenced for easy use. There are manufacturer's listings in alphabetical and geographical sequence. 75 photographs of new products demonstrate the progressive and diverse state of lighting today.

The Directory was conceived, planned and produced to fulfill a need – the need for all lighting professionals (members of the Illuminating Engineering Society *and* others) to have at hand one resource for all their sources.

One copy of the 1981 Directory of Lighting Equipment & Accessories is being sent as a part of the regular LD&A subscription (and to all IES members). Others can purchase it or obtain additional copies for \$10.00.

Industrial Designers Society of America (IDSA)

Committed to a sharp increase in programs and services over the next five years, the Industrial Designers Society of America (IDSA) will move to larger offices in McLean, VA, this August 14, IDSA Executive Director Brian J. Wynne recently announced.

"The new offices are large enough to accommodate the society's growth over the next five years," Wynne explained, adding that the move will also stabilize rent at about one-quarter that projected for the District of Columbia.

IDSA has made the improvement of programs and services its top priority for the next five years. As a result, it is seeking to invest its money in those areas, keeping administration costs down for the time being, according to Wynne.

IDSA's five-year plan includes diversification and expansion of its workshop schedule up to 20 events to include communications skills seminars, corporate and consultant workshops, computer-aided design workshops, and more. The plan also provides for the institution of accreditation; a job referral service; and an annual journal of industrial design papers, the first edition of which will be published this summer.

Ultimately intending to buy its own building in which it can showcase the industrial design profession, IDSA's Board of Directors hopes to be ready for more permanent headquarters by 1986.

The only professional organization representing industrial designers throughout the nation, IDSA's new offices will be located at 6802 Poplar Place, McLean, VA 22101.

The Color Association of the United States (CAUS)

With three recently appointed Directors joining its Executive Staff, The Color Association of the United States announced the launching of its 1982 program.



WARE



WALCH

BANCOU

Dolores Ware, Marielle Bancou and Margaret Walch will coordinate the Association's 1982 program covering: 1. seminars and lectures, 2. enlargement of the Association's seasonal color forecasts for women, men and home/environments, 3. recording of color standards as they originate in the nation's capital and are used by industry, 4. expanding the Association's role as industry's official recording center of U.S. Military shades.

Margaret Walch, author of the *Color Source Book*, has already initiated the seminar program with talks on "Color Psychology in Relation to Color Forecasting," and "Historical Palettes in Relation to Contemporary Design." As Managing Director, Dolores Ware, will continue to coordinate the committees responsible for seasonal fashion color forecasts. Marielle Bancou, based in Paris and New York, will be responsible for recording the international developments in the evolution of current color trends and tastes in Europe, the United States and Japan.

The issuance of the Tenth Edition of *The Standard Color Reference of America* marks the sixty-seventh year of The Color Association's fashion color forecasting and recording of consumer preferences in color.

CANADIAN SOCIETY FOR COLOR

Evening Seminars

The Canadian Society for Color is planning a number of evening Seminars to be held in various cities. The tentative dates, titles and person to contact for further information are given below.

October 28, 1981, Ottawa: "Use of colour in the Federal Identity Program. Speaker: Ulrich Wodicka. Further information: Alan Robertson, Division of Physics, National Research Council, Ottawa, Ontario K1A OR6, Tel. 613-993-2504.

January 20, 1982, Toronto: "An Evening of Colour Experience," Vic Wilensky, M.M. Dillon Ltd., 50 Holly Street, Toronto, Ontario M4S 2E9, Tel. 416-482-5656.

Date to be announced, Toronto: Joint Seminar with Graphic Designers of Canada, Vic Wilensky, M.M. Dillon Ltd., 50 Holly Street, Toronto, Ontario M4S 2E9, Tel. 416-482-5656.

Date to be announced, Montreal: "Colour Measurement," Bob Sheppard, Robert L. Sheppard Enterprizes, Ltd., Suite 350, 3333 Covendish Blvd., Montreal, Quebec H4B 2M5, Tel. 514-484-8535.

Colour and Human Response in Advertising, Marketing and Communications

The Canadian Society for Color is proud to present Faber Birren – widely known colour consultant, promoter of colour use in North America since 1936, and author of over 25 major books on many aspects of colour. This will be a joint meeting with the Society of Graphic Designers of Canada (GDC), a national association of professional designers which started in 1956. Its objectives are to promote high standards of graphic design in industry, commerce, public service and education.

Time: 7:30 p.m. Wednesday, October 14, 1981 (Cash Bar at 6:30 p.m.). Place: Starlight Room, Ramada Inn – corner of Carleton & Jarvis Streets, Toronto. Attendance Fees: Members (CSC & GDC) – \$10.00, Non-Members – \$15.00, Students – \$5.00 (Full-time day students with proof of registration).

Attendance will be limited to 125 persons.

For further information, contact Vic Wilensky at 482-5656 or Judy Strader at 924-6677.

Abstracts of Papers Presented at the 1981 Annual Conference

Colour Television – Past and Future, S.F. Quinn and K.R. Field, Canadian Broadcasting Corporation.

A review of colour television's history, followed by an exposition of the basic principles of colour television, including its colorimetric performance. A look to the future of television in those aspects which have direct impact on the audience.

Chromatic Visual Perception, B.W. Tansley, Carleton University.

Perhaps the most important function of the visual systems of human and higher mammals is the extraction of information about the environment that is carried in the photic signals which impinge upon the retina. Research concerned with understanding the nature of this information extraction must address the issue of how the responses of a limited number of photoreceptor classes, each with different, broadlytuned spectral sensitivity characteristics, combine to provide the input to higher visual centers. Although each photoreceptor class is capable of differential responses to different wavelengths of light, each is incapable of unique differential responses to such lights. Once a quantum is absorbed by the photopigment contained in a single receptor, all information regarding its wavelength is lost. Thus, in order to provide unique signals to higher visual centers when considering photic stimuli of different wavelengths, the output of at least two classes of photoreceptors must be used. From the point of view of the student of the neural substrate for visual perception, the fact of colour vision can be thought of as not only providing a richer sensory experience to the individual, but additional ways of extracting information from the environment through the visual channel. A survey of our current level of understanding of the neural substrate for chromatic perception will be given in addition to some discussion of applications of these principles in human design and medical diagnostics.

Traditional Uses of Colour in the Arts, A. Jeffery, London Regional Art Gallery.

It would appear that we have become a somewhat colourless people, especially when compared with the Ancient Greeks, Romans and even medieval man – they all loved strong, bright colour, and quite happily used them for their cloths and their buildings. But in 1500, or thereabouts, a "national sense of colour" begins to develop followed by the more personalized sense of colour that exists today.

Sound and Colour: A Musical Presentation, S. Kettlewell, B. Spotton, J. Reilly, D. Goodwin.

After the banquet, delegates heard a presentation of another aspect of colour, one far less technical than those made earlier in the day, namely, its relationship to sound. This relationship is given the name of *Synaesthesis:* the production from a sense-impression of one kind of an associated mental image with a sense-impression of another kind.

A musical program was presented based on Newton's comparison of the seven colours of the spectrum to the seven notes of the major/minor scale. Delegates were invited to enjoy the music and those who wished could follow the program provided and study the attempt at colour-sound relationships. *Measurement of Colour*, A.R. Robertson, National Research Council.

The fundamental way to measure a colour is spectrophotometry followed by the application of various standard conventions to convert the spectrophotometric data into numbers that relate to what the eye actually sees. The development of the first photoelectric spectrophotometer by A.C. Hardy in the 1930's was a significant step in enabling wide application of colour measurement. Many other spectrophotometers have been developed since then with important advances coming in the last five years with the incorporation of microprocessors and interfaces to larger computers. Now measurements that previously took hours can be done in seconds or even less. Computations of colour-differences, metamerism, colorant formulations and much more can be made immediately and the results given to an operator or even another machine for immediate action.

Evaluation of the Appearance of Objects and Materials, H.K. Hammond III, Pacific Scientific.

Evaluation of appearance is done by eye and instrument. It is essential that instrumental data agree with what the eye sees. Objective measurement requires numbers rather than word descriptions for we know little about any parameter for which we lack a numerical scale.

Strictly speaking, appearance is not measured, but attributes of appearance, such as colour, gloss and haze, are measurable. The degree of sophistication of the measurement technique depends on the application and the ultimate requirements for data.

For quality control, incoming inspection, and batch control, simple colorimetric measurements of colour differences from target values are quite sufficient. For standardization of colour formulations, spectral information may be desired.

Gloss is perceived in a number of different aspects. Specular gloss is important to the observer, and is easily evaluated objectively. In high-gloss surfaces, image quality is important. But image gloss is difficult to evaluate objectively. Specular glossmeters have been devised with angles and apertures to meet the special requirements of several industries including the coatings industry. Measurement of gloss is useful as an evaluation of an appearance parameter, and it is also useful as an index of abrasion or weather resistance of coatings.

Haze is another important attribute of appearance. It is associated with both reflecting and transmitting materials. In the reflection mode it is closely related to gloss, and a combination of gloss measuring instruments can be used to evaluate reflection haze. In the transmission mode it is found most frequently in transparent plastics, and a specially designed instrument known as a hazemeter is used to evaluate it.

On-Line Colour Measurement, S.J. Kishner, Kollmorgen Corporation.

The manufacture of continuous web products, such as textiles and paper, is complicated by production variables that can cause variations in product colour. This can result in inferior or unacceptable product quality. The manufacturing process can be effectively corrected if timely information on product colour is available. An on-line colour measurement can provide this information.

This paper reviewed the types of instrumentation available for on-line colour measurement, and described applications in several industries.

Industrial Instrumental Colorant Formulation, R. Stanziola, Applied Color Systems.

Does instrumental colorant formulation work well in many industrial applications? The answer to that question could be "definitely yes" from one company to "maybe" from another company making similar products.

On the other hand, it is true that some users do not always obtain a satisfactory colour match after one or two trials using even very sophisticated computer colorant formulation programs. The reasons are many and varied. Several were discussed in this presentation.

Colour in Art and Education, N. Keehn, S. Lamb, Ontario College of Art, D. Piggins, University of Guelph.

Through films, exhibits and colour tests, discussion centered around the topic of education and the students' responses to colour usage in their own work. Colour blindness tests were demonstrated and administered.

Reprinted from the newsletter of the Canadian Society for Color, Vol. 8, No. 3, July 1981.

COLOR RESEARCH AND APPLICATION

Contents

Volume 6, Number 3, Fall 1981

Articles – NCS – Natural Color System: A Swedish Standard for Color Notation, A. Hard and L. Sivik.

Low-Reflectance Backing Materials for Use in Optical Radiation Measurements, T. E. Wightman and F. Grum.

Color-Matching Functions: A Set of Transformations with Essentially Single Maximums, G. L. Gibson.

Why and How Chromatic Adaptation Has Been Studied, W. D. Wright.

On Chromatic Adaptation and Persistence, C. J. Bartleson. Formulation of a Nonlinear Model of Chromatic Adaptation, Y. Nayatani, K. Takahama, and H. Sobagaki.

Note – Natural Dyes in Quebec, P.-M. Sauve.

Meeting Reports – Seventeenth Hungarian Color Symposium, J. D. Schanda.

Use of Colors in Hospitals, F. W. Billmeyer, Jr.

COLOR '80 Plovdiv, J. D. Schanda.

The 1981 ISCC Williamsburg Conference, T. G. Webber.

A Report on the 1981 ISCC Williamsburg Color Conference, B. Schwartz.

Book Reviews – Optical Radiation Measurements. Volume 1: Radiometry, by Franc Grum and Richard J. Becherer. Reviewed by F. W. Billmeyer, Jr.

Optical Radiation Measurements. Volume 2: Color Measurement, edited by Franc Grum and C. James Bartleson. Reviewed by E. C. Carter.

Coloring of Plastics, edited by Thomas G. Webber. Reviewed by T. J. Hoogeboom.

Coloring of Plastics, edited by Thomas G. Webber. Reviewed by V. J. Mimeault.

BOOKS NOTED

Principles of Color Technology, 2nd Ed., Fred W. Billmeyer, Jr. and Max Saltzman. John Wiley & Sons, Inc., New York 1981 (\$40.00).

This is an update of the 1966 edition, written by two highly experienced teachers. Some of the new features include the 1964 CIE Supplementary Standard Observer, available color measuring instruments, recent color difference formulas, instrumental color matching in industry, and a fine discussion of unsolved problems and future directions. The latter explains a number of new color terms that are coming into use.

The authors deserve high praise for their helpful, objective, compassionate viewpoint. They are describing an imperfect science which is in a constant state of flux but they do not sit in judgment. The book is essential to all who are working with color; it is a superb text.

T. G. Webber

Reprinted from the Fall 1981 Newsletter of the SPE Color and Appearance Division.

Reflex, Dick Francis, G.P. Putnam's Sons, \$12.95, 1981.

The new Dick Francis mystery, *Reflex*, has been acclaimed by critics as a "breakthrough" – however, it has the same taut, economical use of English, a fine plot, and good characterizations; in short the usual excellent fiction that one expects from Mr. Francis. The breakthrough may be that it is longer than usual.

For ISCC members who happen to be mystery buffs *Reflex* has added attractions. The plot involves the use of color and black-and-white photography to conceal rather than reveal evidence. Some chapters include technical information about the use of chemicals, films, filters, and procedures in uncovering clues leading to the exposure of the villains involved.

Presumably Dick Francis has spent some time investigating the use of materials involved in color photography. ISCC members should have no difficulty in assessing his expertise.

David C. Sickles

Mimeoform Service, Inc.

LETTERS TO THE EDITOR

In response to your request, challenge, regrettable inquiry, whatever, I submit the following: A Fading View of the Clerihew.

Graham and Grum, Rodregues and Reese, Officers, directors, if you please, May demand the resignation of Dr. B., Renouned news editor of ISCC

Should he publish these Clerihews. At very least, they must insist on Psycho-chromatic interviews.

Academic color has never been higher; Elevated in the U.S. by Billmeyer From duPont to Rensselaer Poly. I. He has made color as clear as blue sky.

And we could not be blunter Than to say that Dick Hunter Will never be at a loss To measure color and gloss.

Harry K, number three He scanned photometry. Spectro is the game, Hammond is the name. Now Sir Newton when rural Coined "spectrum," while plural Was -trums and not -tra. Ho-hums! Or ho-hra?

Contributed by colorless me. Fading your hue is what I do, see? By light from sun and sky or a xenon arc; So expose your colors. That's my last remark.

R. A. Kinmonth Physicist, Product Development Atlas Electric Devices Co.

The typographical errors the observant reader will have noticed in preceding verse were corrected in the following letter sent to me the next day. Ed.

Dear Editor:

For inverting Hammond, Harry I am sorry, sorry, very Clerihew is very terse The name must be in the first verse.

Billmeyer and Hunter, also, I delegated to second row. It was certainly not my intention To flaunt Clerihew's invention.

But Editor Benson you must share In the blame. For I was unaware That there existed Clerihews 'Til explained in ISCC News.

Inverted, Billmeyer's verse can be unbent Should you decide to publish this poor attempt. But first, correct the typos, please In renowned and Rodrigues.

For Dick Hunter you could say, He, (Trouble? I don't mean to be), he will never be at a loss to measure color and gloss.

Now colorless me will fade away In hopes you may still enjoy the day Perusing some much more colorful news With dichroic, anastigmatic views.

R. A. Kinmonth Physicist, Product Development Atlas Electric Devices Co.

COMMUNIQUE

Le 12ème numéro de la revue INFORMATION COULEUR vient de paraitre présentant un sommaire diversifié:

- Enseignement scientifique : "La vision des couleurs"
 Industrie et technique : ."La couleur dans l'usine"
 - ."La coloration des matières plastiques"
 - ."La couleur et l'automobile"

 Art et symbolisme : "Les icones ou images à la matière transigurée."

- Couleur et littérature

Depuis plus de trois ans, INFORMATION COULEUR offre ses colonnes aux scientifiques, industriels, enseignants, artistes, psychologues, ergonomes, architectes, médecins, etc. à tous ceux qui sont impliqués dans la recherche, la fabrication et l'utilisation de la couleur.

Seule revue francaise consacrée au monde de la couleur, INFORMATION COULEUR parait tous les trimestres : le numéro, 25 F; abonnement annuel, 80 F (France), 90 F (étranger).

Le CENTRE FRANCAIS DE LA COULEUR est une Association Loi 1901, membre officiel de l'AIC (Association Internationale de la Couleur) qui a pour but d'aider les utilisateurs de l'industrie, des professions artistiques, médicales et scientifiques à connaitre la couleur sous tous ses aspects, à en développer l'étude, la compréhension, le role, l'utilisation, la fabrication, la diffusion.

President : Francois PARRA, Dr ès Sciences Physiques Secrétaire de la Féderation Européenne de la Couleur.

Adhésion : 100 F - Adhésion + abonnement revue : 160 F.

CENTRE FRANCAIS DE LA COULEUR 43 rue Cuvier - 75231 Paris Cedex 05

COLOUR GUIDE – RESISTORS AND CAPACITORS

A new British Standard number BS 5890 Guide for the choice of colours to be used for the marking of capacitors and resistors, gives advice on the selection of appropriate colours for such electronic components. Colours for coding and identifying capacitors and resistors for use in electronic equipment are specified; colour definition is by means of the chromaticity co-ordinates and luminance factor for illuminant C in the Colorimetric system. BS 5890 corresponds with IEC Publication 425 and is available for £1.20 from BSI Sales Dept.

Reprinted from the newsletter of The Colour Group (Great Britain).

PRODUCTS AND SERVICES

Rochester Institute of Technology (RIT)

Seminars in Atlanta this fall

Graphic arts personnel from the southeastern states will get to sharpen old skills and learn new ones when Rochester Institute of Technology takes five printing seminars to the Sheraton Inn at Atlanta Airport on October 19-23, 1981. The seminars will be taught by faculty from RIT, staff members from the Technical and Education Center of the Graphic Arts (formerly the Graphic Arts Research Center) and experts from industry. The following will be presented:

Black and White Tone Reproduction (October 19-20) Estimating for the Small Printer (October 19-20) Color for Pressmen (October 21-22)

Color Control: Cost and Quality Considerations (October 21-22)

Text Management/Phototypesetting (October 21-23)

Tuition for each of the two-day seminars is \$185. Tuition for Text Management/Phototypesetting is \$290. Those attending will also get to see the mobile seminar unit "RIT on the Move," which is filled with computer text-editing and phototypesetting equipment, a camera and a printing press.

An eight-page brochure entitled "RITechnology on the Move" describes the seminars and explains how to register. To order it, contact Rochester Institute of Technology, Mr. Val Johnson, T & E Center, One Lomb Memorial Drive, P.O. Box 9887, Rochester, NY 14623; (716) 475-2758.

Color Printing Seminar

On November 16-19, 1981 the Technical and Education (T&E) Center of the Graphic Arts will present its "Color Seminar for Press Operators" on the campus of Rochester Institute of Technology in Rochester, N.Y. The seminar teaches how to get the best printed results from a given set of color plates under shop conditions. Emphasis is placed on the correct printing of colors and on press-related problems rather than on the production of color separations and plates as such. The program is down-to-earth and is based on realistic demonstrations by instructors who have both practical experience and theoretical knowledge.

Major topics will include the basic principles of color reproduction, process inks, the effect of paper on color reproduction, press variables, and evaluating the printed sheet. There will be lectures, presentations, and open discussions. The T&E Center's professional press crew will demonstrate many of the processes involved. Tuition is \$390, and enrollment is limited to assure individual attention and effective group discussions.

Technical and Education Center of the Graphic Arts: Seminar Schedule, October - December 1981

The following seminars will be presented during the final three months of 1981 by the Technical and Education (T&E) Center of the Graphic Arts on the campus of Rochester Institute of Technology in Rochester, N.Y. For further information, write to Mr. Val Johnson, Seminar Coordinator, T&E Center, Rochester Institute of Technology, One Lomb Memorial Drive, P.O. Box 9887, Rochester, N.Y. 14623; or call (716) 475-2758.

OCTOBER:

05-09 Printing Systems for the Paper Industry 12-15 Color Seminar for Press Operators 12-16 Quality Control for Photographic Processing 26-28 Commercial Web Offset Workshop 27-30 Basic Quality Control for Graphic Arts Applications

NOVEMBER:

04-06 Black and White Tone Reproduction

- 09-11 Commercial Web Offset Workshop
- 09-13 Photographic Science
- 16-19 Color Seminar for Press Operators
- 18-20 Understanding Bindery Operations
- **19-21 Printing Screen Fabrics**
- 30-D4 Orientation for the Graphic Arts
- DECEMBER:
 - 07-10 Color Seminar for Press Operators
 - 14-17 Color Control for Cost & Quality

RIT Color Test Strip

The RIT Color Test Strip, now available from the Technical and Education Center of the Graphic Arts, is a new qualitycontrol tool for printers who want to improve their four-color process printing. A special Evaluating Printed Color (EPC-1) calculator program that complements the test strip and simplifies printed color evaluation can also be ordered.

Three features of the RIT Color Test Strip offer unique advantages:

• It includes bulls-eye targets that are easier to read than other slur, dot-doubling and dot-gain detectors.

• At 4-3/8 by 1/4 inches, it is smaller than other test strips. It can be trimmed to a width of 1/8 inch and retain all of the color-variable information.

• The calculator program can be used with the test strip for easy, fast and accurate evaluation of printed color.

The strip consists of 18 color patches and four bull's-eye targets. One package includes enough film to print 45 continuous inches in four colors. A three-ring binder contains instructions, graph paper for data analysis, and analysis samples. The package is offered with either negative or positive film.

The RIT EPC-1 calculator program uses densitometric readings from 12 test-strip patches to evaluate printed color. The program is on a magnetic card for use with a Texas Instruments, Inc. TI-59 programmable calculator PC 100-A Printer. Each magnetic card is custom made at RIT for each printer's color sequence.

The RIT Color Test Strip package costs \$45; additional film sheets are \$35 each. The RIT EPC-1 Magnetic Card Program costs \$195. All orders must include a color sequence; additional programs with alternative sequences are \$145 each. A free copy of the instruction booklet for the calculator program is available by requesting item number 32581FREE. Send all orders and requests to Rochester Institute of Technology, T & E Center Order Department, One Lomb Memorial Drive, P.O. Box 9887, Rochester, NY 14623; or call (716) 475-2739.

Macbeth Has Scheduled "The Fundamentals of Color"

Macbeth, A Division of Kollmorgen Corporation, has announced the 1981-1982 schedule of their well received seminar. The two-day seminar has proven to be so popular that the company now considers it an ongoing educational program. It has drawn attendees from virtually every industry involved in color, and has received positive and enthusiastic acceptance at all levels of management, from technicians to executives.

The Fundamentals of Color provides a good understanding of the problems associated with the measurement, specification, and control of color. It is particularly useful to people working in the paint, textile, cosmetics, plastics, food, paper, pharmaceutical, and retailing industries. The use of visual standards, controlled lighting and viewing conditions, and color measurement instrumentation is discussed and demonstrated.

As in the past, attendees are urged to bring color samples of any materials with which they are having problems, for discussion with the technical experts who will be on hand to provide solutions. This particular practice has proven to be one of the most enthusiastically received aspects of the seminar.

Continuing a practice introduced in last year's presentation of the seminar, registrants will be asked to fill out a questionnaire sometime before the seminar. From this information, it will be possible to "zero in" on the particular requirements of attendees and tailor each seminar to their particular interests.

The first day is devoted to lectures and practical demonstrations. The fee for the first day is \$125 U.S./person and includes reference material, workbook, and lunch. There is no charge for the second day, which is an informal session of hands-on use of visual standards, lighting control and instrumentation.

The locations and dates for the new schedule are as follows: Greenville, SC, October 15-16, 1981; Dallas, TX, November 19-20, 1981; San Francisco, CA, February 18-19, 1982; Newton, MA, March 18-19, 1982; Cherry Hill, NJ, April 22-23, 1982; Chicago, IL, May 20-21, 1982; Columbus, OH, June 10-11, 1982.

In addition to the foregoing schedule, arrangements can be made for an in-house presentation of The Fundamentals of Color.

Additional information and application forms can be obtained from Jeanne M. Dolan, Macbeth, Little Britain Road, P.O. Box 950, Newburgh, NY 12550, phone 914-561-7300, or (toll free) 800-431-4952.

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