

Inter-Society Color Council *News*

FIFTIETH ANNIVERSARY ISCC MEETING

As part of its 50th anniversary year, the Inter-Society Color Council will hold its Golden Jubilee Annual Meeting at the Roosevelt Hotel, New York City, April 26-28, 1981.

The ISCC Golden Jubilee Meeting will open with a wine-and-cheese reception on Sunday evening, April 26, at the Fashion Institute of Technology in Manhattan. Attendees will have the opportunity to see the Mariano Fortuny Exhibition, and a tour of the Institute's laboratories will be arranged.

Monday, April 27, will feature meetings of the ISCC's thirteen active project committees. These meetings, which are open to the public, will include brief reviews of the history of the committee as well as current business. The 50th Anniversary Meeting Banquet will be held on Monday evening; the after-dinner speakers will be Yale and Frances Forman, Yale Forman Designs, talking on color in China.

On Tuesday, April 28, the ISCC meeting will feature three Symposia, several important papers, and a luncheon. The meeting will begin with two papers on the ISCC itself: "Historical Perspective: 50 Years of ISCC" by Dorothy Nickerson, and "Overview of the ISCC and its Member Bodies" by Joyce S. Davenport. The latter paper will serve to introduce the first of the day's symposia: *50 Years of Progress in the Use of Color*, in which representatives of several ISCC Member Bodies will speak on the use of color in their fields of interest, including architecture, photography, instrumental control, prosthodontics, gems, and art.

The luncheon on Tuesday will feature the presentation of the ISCC Godlove Award to the 1981 recipient, and will be followed by a short business meeting.

On Tuesday afternoon, a Symposium on *Color in the Future* will feature predictions of progress over the next five years in a number of fields of application of color, including colorants, art, color science, and interior design. This will be followed by the final Symposium of the day, on *Color Education*, which will describe a sampling of small or lesser known educational programs in various areas of color, including industrial design, interior design, architecture, and the colorant-using industries.

Founded in 1931, the Inter-Society Color Council currently consists of 36 member bodies and over 900 individual members and delegates. The ISCC is a non-profit organization of societies and creative individuals — artists, designers, educators, industrialists, scientists — actively interested in the description and standardization of color, the practical application of color knowledge to problems in art, science, and industry: communication between color specialists and creative workers in art and design, educational activities, and in the interchange of ideas on color and appearance, for the benefit of all.

For further information on the 50th Anniversary ISCC meeting contact:

Dr. Allan B. Rodrigues, E.I. du Pont de Nemours & Co., 945 Stephenson Highway, Troy, Michigan 48084, (313) 583-9220 or Dr. Fred W. Billmeyer, Jr., Department of Chemistry, Rensselaer Polytechnic Institute, Troy, New York 12181, (518) 270-6458.

NUMBER 269 NOVEMBER-DECEMBER 1980

CHANGES IN MEMBERSHIP LIST, OCTOBER 15-NOVEMBER 15, 1980

Changes in Status

Mr. Camille Brouillet: delete AIC
Mr. James B. Brown: change to CMG/V
Miss Ann Dillon: change to CMG/C
Prof. Peter K. Kaiser: add AIC
Dr. Robert T. Marcus: change to FSCT/V
Mr. Dennis Osmer: change to FSCT/C
Dr. (Mrs.) Shalini S. Patwardhan: add AIC

Additions

Color Marketing Group
c/o Ms. Sherry Ellman, CMG/L
Administrative Secretary
1000 Vermont Avenue, N.W.
Washington, D.C. 20005

Mrs. Lisa Bareiss Hepfinger, IMGS
40 Plunkett Street
Pittsfield, Massachusetts 01201

Mr. Robert A. Lewis, IMG
850 Oak Avenue
Maywood, New Jersey 07607

Mr. Charles Lachlan McDonald, IMG
1224 Washington Street
Wilmington, Delaware 19801

Mme. J. Vershuere Van Helden, AIC
C.I.C. Belgique
c/o S.A. Levis N.V.
171 Leuvensesteenweg
B-1800 Vilvoorde, Belgium

Mr. Roger F. Wells
Gardner Laboratory Division
Pacific Scientific Company
PO Box 5728
Bethesda, Maryland 20014

Deletions

Mr. Harry Barber, IMG	(no address — temporarily off)
Mrs. Wendy Coker, IMG	(nonpayment of dues, 3 years)
Mr. Harry Doane Eaton, Jr., IMG	(deceased)
Mr. Ronald P. Kern, IMG	(resigned)
Miss Barbara Malarek, IMG	(no address)
Ms. Maribeth McMahon, IMG	(nonpayment of dues, 3 years)
Mr. Daniel M. Quinn, IMG	(no address)
Mr. Craig A. Reynolds, IMG	(resigned)
Mr. Herbert J. Sanborn, IMGR	(resigned)

Change of Address

In each case the new address is shown.

Mr. Glenn M. Berggren, SMPTE
Optical Radiation
635 N. Irwindale Avenue
Azusa, California 91702

Miss Margaret Halstead, IMG
9 Lowther Drive
Enfield, Middlesex
England EN2 7JL

Mr. Douglas Mogler, FSCT, IMG
645 Shelter Creek Lane, Apt. 245
San Bruno, California 94066

Mr. Patrick J. Peoples, TAPPI/V
Research Division
S.D. Warren Company
Div. Scott Paper
Westbrook, Maine 04092

Dr. Danny C. Rich, IMG
Sherwin-Williams Company
10909 S. Cottage Grove Avenue
Chicago, Illinois 60628

Dr. Thomas G. Webber, IMG, SPE
1722 Forest Hill Drive
Vienna, West Virginia 26105

Mr. Alan J. Werner, IMGR
159 Watauga Avenue
Corning, New York 14830

NEWS OF MEMBER-BODIES

Color Marketing Group

The CMG held a very successful and well-attended Fall Meeting in Nashville, Oct. 5-7, 1980. The Opryland Hotel provided an appropriate setting in which to "Tune Up Your Colors."

Our new Color Directions Palette for 1982 was presented — the result of many hours of work by members and workshop captains.

We also took time to review our Color Directions for 1979 — to evaluate the effectiveness of our past predictions and to give us a better measure for future work.

We have a newly formed Design Directions Committee — under the initial Chairmanship of John Rinderman of Burlington House, and Nadine Gross, Color and Design Forecast.

There were many excellent speakers on an interesting variety of subjects.

Sunday, October 5

Panel Discussion on Manufactured Housing and Recreational Vehicles.

Moderator: Murray Smith
Manager, Specification Markets, Micarta Div.
Westinghouse Electric Corp.

Panelists: John W. Turner
Director of Interior Design
Redman Homes, Inc.
"Color on The Production Line"

Jo Miller
Design Consultant
Commodore Homes
"Modular Colors"

Alice Lindsey
Designer
Tidwell Industries
"Color Marketing the Total Home"

Susan Ginther
Project Manager
Midas International
"Recreational Vehicles — A separate Approach"

The afternoon concluded with the showing of the film "The Price," concerning antitrust activities.

On Sunday evening, there was a reception, dinner, and dancing. Our President, Kenneth Charbonneau, of Benjamin Moore & Co., addressed us, reporting on the exciting period of growth and change CMG has been experiencing.

Monday, October 6

The morning began with the presentation of the 1982 Color Directions. (Members only)

This was followed by three sessions of four Directions Committees — in order to give everyone the opportunity to attend as many as possible. These Committees were:

Educational Directions

"Fitting the Munsell System into Design Programs."

"Paint" — Randy Cook, Director of Color Promotions, Color Communications.

"Decorative Schemes" — Darlene Kinning, Colwell General, Inc.

Marketing Directions

Speaker: Professor Joseph Cox, III, Miami University of Ohio, Laws Hall and Associates — student run advertising program at Miami Univ.

Technical Directions

"Mannerism in Bedside Color." Speaker: Anna Campbell Bliss, Bliss and Campbell.

Design Directions

New — organizational meeting.

Color Directions Workshops — Review of 1979 Colors.

"An Introduction to CMG — For Non-Members.

Monday evening was Country Jamboree Night — a time for CMG in jeans for a great evening — Nashville style — reception, buffet and dancing to the Country Music of "Hazen Plus Two."

Tuesday, October 7

Color Directions Mixed Industry Workshops.

Directions Committees — continued.

Noon — Reception.

12:30 Lunch.

1:30 Display of Color Directions Results.

2:00 CMG Annual Meeting.

3:00 Color Directions Workshop Reports.

Directions Committees Reports.

6:30 Reception.

7:30 Dinner.

Speaker: Lou Kapuscinski
Executive Vice President
Liller-Neal-Wilton Advertising Agency
"Color and Advertising"

We are pleased to announce the election of the 1981 Executive Committee, as presented to us in Nashville.

President: Mr. William C. Capehart
Marketing Manager, Colorant Div.
Tenneco Chemical, Inc.

Vice President: Mr. William Marley
Director of Color and Design Floor
Products
GAF Corporation

Treasurer: Ms. Joyce Davenport
Supervisor, Color Development
DeSoto, Inc.

Secretary: Ms. Carol Forbes
Carol Forbes Designs

Three Members have been named to the Board of Directors:

Ms. Sharon Clarke-Fodor
Design Director, Design and Roller Division
L. E. Carpenter and Sanitas

Mr. Tom Holloway
Manager, Colorant Division
Bennetts

Ms. Marie Mornell
Associate Product Manager, International Dept.
Proctor-Silex

The honorary title of Chairholder was awarded to four CMG members at this Meeting:

Mr. Ralph Besnoy, ICI Americas
Mr. J. M. (Mike) Ellis
Ms. Randi-Reynolds-Allen, Mitchell Designs
Mr. Karel Van Langen, 3M Company

It was decided at this meeting to reinstate the Forest L. Dimmick Award, established in 1968 in Dr. Dimmick's memory — as tribute to his contributions to CMG in the field of color vision. Ms. Betty Jennings, Champion Building Products, has been named Chairman of the Selection Committee.

Coming Events:

December 4, 1980 — "Trends With a Capital 'T' "
Northeast Regional Meeting
Fashion Inst. of Technology, N.Y.C.

January 29, 1981 — "Back to Basics in Marketing"
Central Regional Meeting
Sears, Roebuck, & Co., Chicago, Ill.

February 20, 1981 — "Gambling on Color"
Western Regional Meeting
The Dunes Hotel, Las Vegas, Nev.

May 16-19, 1981 — Semiannual Spring Meeting
Dutch Inn, Lake Buena Vista, Fla.

Ann Dillon
Chairman, CMG Delegation

Detroit Colour Council

The Detroit Colour Council concluded another successful year with a November, 1980 visit to the Detroit Institute of Arts. Sculptures by Rodin were featured at this show. Earlier in the year programs included a presentation on gloss and other appearance characteristics, a panel discussion on federal regulations affecting pigments and a preview of color fashions in apparel.

Four programs are again planned for 1981 starting with a February color styling presentation by June Roche of Milliken. Other tentative plans include a May pigment presentation by John Dickerson of Harshaw and a September panel discussion on color measurement.

Membership in the Detroit Colour Council grew again in 1980 and a 10% growth is expected in 1981.

Industrial Designers Society of America (IDSA)

Color Workshop
IDSA Annual Meeting
San Antonio, Texas
October 3, 1980

First, let us all welcome Professor Alessandro DeGregori, Associate Professor, Carnegie-Mellon University, Pittsburgh, Pennsylvania, as an active and participating member of our IDSA delegation to ISCC. Alessandro, already an individual member of ISCC, became a member of our IDSA delegation just prior to the IDSA convention, and just in time to be tapped for one of the three panelists in our color workshop. Many of you know Alessandro through his work for Olivetti in Italy and later his work for Knoll Associates in New York City. Recently, he has become a member of the design teaching staff at Carnegie-Mellon University, where he has also been developing a major course in color education for designers.

In the color workshop at San Antonio, our program consisted of three panelists: myself, Aless and Nadine Bertin, speaking in that order. I introduced the subject of color with a rundown on the basic elements of color (scientific, art and psychological), the sourcing for major technical, artistic and design color information. This was done by means of a documentary slide presentation, illustrating types and values of text material that could not be duplicated for distribution. In addition, I prepared a bibliography of color information sources, the heart of which was a major source publication recently released by Faber Birren, who graciously donated the use of the publication for this program. The Birren publication is titled "Color Systems and Standards," as part of the Faber Birren Collection of Books on Color, Art and Architectural Library, Yale University. I closed my part of the program by discussing

the color societies whose interests seemed most pertinent to our color use, particularly the color services of our fellow members and member societies of the Inter Society Color Council to industrial designers.

Aless spoke next, dividing his general comments into two parts. The first dealt with color work completed for Olivetti and other industrial clients in Europe. This presentation given in case-history form was commented on by Aless. It was well done and hopefully will be in written form for publication. The second part of his program dealt with his color course and teaching procedures at Carnegie-Mellon to some extent plus considerable detail about his work with Pantone Printing Inks and their color systems. It's my understanding that some of this work is to be published soon in *Color Research and Application*. I assume that all of you take the magazine, so you will see the article later on.

The third section of our panel program was handled with great verve by Nadine Bertin, Director of the House and Garden Color Programs. She explained the H. & G. color system as a color system. How it worked, how the staff with Faber Birren as Consultant, developed their color expertise and opinions. As you all know, this color system is unique in that there is none other like it in the world. The Color Program serves a very specific marketing purpose, illustrated by Nadine and explained both visually and orally as the content of her lecture. Here documentation of color use broken down into product, soft goods, interiors and so forth beautifully illustrated the interdependence of color-in-use as well as trends. An excellent talk for your chapter meetings.

Professional Support Displays and Materials — Munsell Color loaned us an excellent materials display with adequate printed material about the Munsell system. *Color Research and Application* magazine furnished us with magazine copies and offers for free magazines to those interested (63 were interested). Pantone, Inc. furnished paint sample cards for both home and specialty type industrial paints. ISCC had a display plus material about the Society and its benefits for people in the color world. So all who were there went home with an armload of samples of one kind and another.

Our attendance for two sessions must have run well over 200 people. We were surprised with the attendance and gratified that there seems to be a solid foundation of color interest in the Society membership. Perhaps it will be possible to put together regional color workshops at least once or twice during the coming year. Such a workshop might be held in university surroundings. We could utilize some of the material from this first workshop and expand into other areas of color application and knowledge. Each of you might give some thought to subject matter and what as individuals you might contribute toward making such a workshop a success. All this, of course, depends upon whether the powers-that-be decided it is worthwhile attempting such a workshop for money-making purposes and educational purposes.

Professor Redmann and I are working with Rolf Kuehni of Mobay, Inc. to develop a design for a new ISCC service award. At present, it looks as if the object might be a piece of Steuben glass mounted on a stainless steel base, or a custom base designed by Bob Redmann. This would be offered for the first time at the ISCC convention in 1981.

Each one of you will have received the flyers sent out by Fred Billmeyer on the Williamsburg Conference. Please note it

is oriented toward "Creativity, the Common Denominator: Artist and Science Working Together." It looks to be an excellent program and perhaps some of you might like to go or could pass the word around to others.

If I had a comment about the Williamsburg program, it would be that the artists and scientists working together is an excellent subject, but they should have squeezed the designer in between who is neither an artist nor a scientist in his use of color, but a much more prosaic person who relates color to how people use and react to color in their everyday life. This is a subject that, so far, does not appear in this program. It is an approach we might develop more in an IDSA workshop.

Another note of interest: Alex Styne (who has recently moved his office) is also Chairman of the Color Committee of IES and is setting up a cross-country series of three-hour seminars for the IES (Illuminating Engineering Society). Architects and designers are invited as well as electrical engineering persons. The seminar dates and locations and speakers follow: (This could be a joint IDSA chapter meeting or individual attendance.)

April 22-24 — Tucson, Arizona, Alvin Hart.

April 26-28 — Orlando, Florida, Marlene Lee, IES.

April 29-May 1 — New York City, William A. Thornton, IES/C, IMG.

May 4-6 — Toledo, Ohio, Robert Levine.

May 10-12 — Washington, DC, Calvin S. McCamy, IES, SPSE/V.

May 17-19 — Kansas City, Missouri, Philip C. Hughes, IES, IMG.

June 4-6 — Banff, Alberta, Canada, Alexander F. Styne, IDSA/V, IES, IMG.

August 9-15 — Toronto, Canada, Mr. Styne.

As you know, one of Alex's major contributions to ISCC has been as Chairman of the Problem 33 "Human Response to Color" where he has been doing a tremendous job for IDSA/ISCC since the origin of the Problem Committee. As a scientist Alex's major color interest is in the interaction of illumination with color. While Alex is also an industrial designer, his special interest in illumination has given him a unique qualification. He is the only industrial designer to have held the post of Program Chairman in the IES. So, I suggest we should be proud of Alex and the fact that his diverse interests once again illustrates the exciting scope of those of us in industrial design.

Raymond Spilman

Chairman, IDSA Delegation

Synopsis

Color Workshop for Lighting Engineers, Architects and Designers — Alexander F. Styne

The Workshop covered:

What is light — Spectral power distribution of natural light and typical lamps.

Influence of spectral power distribution on color-rendering of objects and in architectural spaces.

Color temperature.

Mixing of colored light. Additive and subtractive color mixture.

Metamerism.

The visual system.

Color rendition and the color rendering index (CRI).

Color order systems: Ostwald and Munsell.

Unconventional visual effects. Perceived brightness and measured luminance.

Perceptual color phenomena.

Psycho-biological aspects.

The human variable.

As color stimuli result from light as modified by objects and by architectural elements, the workshop stresses the joint responsibility for their influence on human behavior and performance by engineers, architects, interior, and industrial designers.

Society of Photographic Scientists and Engineers (SPSE)

SPSE To Sponsor First International Congress On Advances In Non-Impact Printing Technologies

The Society of Photographic Scientists and Engineers will sponsor the First International Congress on Advances in Non-Impact Printing Technologies, June 22-26, 1981. The Congress, the first of its kind, will be held at the Conference Center on the Island of St. Giorgio, Venice, Italy, operated by the Fondazione Cini.

This is the first meeting to be held in Europe under the sponsorship of SPSE, and was organized to examine the rapid growth on non-impact printing technologies, in itself a by-product of the revolution in information processing.

Present and future office automation equipment must ultimately present the desired information in human readable form-print on paper for the foreseeable future. For reasons relating to noise, cleanliness, size, maintenance, versatility, print quality and speed, the trend is more and more to non-impact printers. When these applications are added to those in which non-impact printing is growing rapidly, such as computer printers, facsimile and teletype, the future for this technology is extremely bright.

Since there is considerable lag between R & D and commercial introduction, it seems highly probable that most of the advanced technical work in this area is of very recent vintage. Therefore, interest in this subject is growing and an international congress devoted to technological advances is very timely.

Although the charter of Business Graphics Technical Section of SPSE includes this technical area, credit for suggesting the conference and its location has been given to Dr. Arnaldo Pasini of Olivetti, who will serve as General Chairman.

SPSE has no chapters in Europe and had never held a meeting there. However, the Executive Committee of the SPSE Board of Directors voted unanimously to sponsor this congress.

The program has been divided into several major areas, including:

Technologies Basic to Photo and Electronic Printout, including electrography, photoconductivity, toning and toners, image and signal transduction;

Thermal or Electrosensitive Processes and Media, plain paper systems, advances in paper compositions, multiple copy, head development and design, quality-cost tradeoffs;

Electrostatic Systems, plain and coated paper advances, reusable insulators, processes and mechanisms, equipment performance limits, reliability, reproducibility and MTBF;

Ink Jet, new or advance jets and jet arrays, fabrication processes, ink interactions with equipment, performance reproducibility problems and limits;

Magnetic Processes and Media, including magnetic head designs, new media, toners and toning, comparisons with older, more well established methods;

Laser, LED and CRT Electrophotographic Systems, semiconductor lasers, LED arrays, optical scanning and modulation materials, methods and equipment, recording processes and media, including IR sensitive photo-conductors, system reliability, cost and MTBF.

Present and Future Application, facsimile, electronic mail, word processing, combinations of WP and DP, teletype, intelligent copiers, system designs and software, effects of application requirements on hardware performance, appraisal of technological status in terms of performance requirements;

New Processes, including a panel discussion of "Future Directions of Non-Impact Printing Technologies" and other papers as received.

Because of the tremendous interest in all sessions, no parallel sessions will be held so that visitors will be able to attend every session. The language of the Congress will be English.

However, to ensure a true international character, three program co-chairmen have been announced, responsible for Europe, Japan and the United States. Although technical advances will be the dominant theme, critical evaluations of equipment, materials or processes may also be included especially those which bear on or provide background for technical advances.

For forms and complete details, contact: Robert H. Wood, Executive Director, SPSE, 7003 Kilworth Lane, Springfield, VA 22151, 703-642-9090.

COUNCIL FOR OPTICAL RADIATION MEASUREMENTS

International Conference on Optical Radiation Measurement of Fluorescent and Retroreflective Materials Bloomington, Minnesota June 17-19, 1981

Provisional Program

The Conference will open with a reception at the Thunderbird Motel on Wednesday Evening, June 17, 1981. The program on Thursday, June 18, will begin with a short CORM Business Meeting, to be followed immediately by a technical papers session on retroreflection. Among the topics to be discussed are standard geometries for retroreflection measurement, measurement of daytime color, measurement of nighttime color and brightness, progress in retroreflection measurement at the National Bureau of Standards, activities in the CIE (International Commission on Illumination), and aspects of retroreflection concerned with visibility.

After a group lunch, there will be research visit to the 3M Company facility for the measurement of retroreflective and fluorescent materials. There will be a dinner with speaker at the Thunderbird Motel, and the day's activities will conclude with a demonstration of retroreflective materials in the field under nighttime viewing conditions.

The morning program on Friday, June 19, will consist of a technical papers session on the measurement and properties of fluorescent materials. Among the topics to be discussed are simulators of natural daylight, the stability to environmental exposure of fluorescent materials, CIE and related activities on the measurement of fluorescent materials, methods for calcu-

lating the colors of such materials under standard daylight illumination, the use of fluorescent signs for signaling and danger warning, and activities related to fluorescence at the National Bureau of Standards.

The afternoon session on Friday, following a group lunch, will include papers on advances in optical radiation measurements in areas other than fluorescence and retroreflection, with emphasis on activities at the National Bureau of Standards.

Address correspondence and inquiries to: Dr. Fred W. Billmeyer, Jr., Secretary-Treasurer, CORM, Department of Chemistry, Rensselaer Polytechnic Institute, Troy, New York 12181.

COLOR RESEARCH AND APPLICATION

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Articles

Three Are Not Enough: An INDSCAL Analysis Suggesting that Color Space has Seven (± 1) Dimensions, *J. J. Chang and J. D. Carroll*.

Brightness and Luminance of Light-Emitting Diodes: Influence of Size and Defocus, *L. R. Ronchi, R. Macii, S. R. Stefanacci, and M. Bassan*.

Colour-Rendering Assessment of Ultraviolet Emission in Light Sources, *S. T. Henderson and M. B. Halstead*.

Color Forum

What is Metamerism? *A. B. J. Rodrigues and R. Besnoy*.

Meeting Reports

Fifth International Color Vision Conference, *J. Voke*.

Eighth Annual CORM Meeting, *A. R. Karoli*.

49th Annual ISCC Meeting, *G. H. Snow*.

Book Reviews

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

Mechanisms of Color Vision: Selected Papers, by W. S. Stiles. Reviewed by *J. Voke*.

BOOKS NOTED

Electronic Publishing for Commercial Printing, Volume II of a conference on "Lasers in Graphics/Electronic Publishing in the 80's."

Session One: Graphics in the 80's — An Introduction

Chairman: S. Thomas Dunn, President, Dunn Technology, Inc.

"An Introduction to Laser Scanning for High Quality in Graphic Arts," S. Thomas Dunn, President, Dunn Technology.

"Semiconductor Laser's Future in Graphics Arts," Anthony Stramondo, General Optronics Corporation.

"Directions in Electronic Publishing," Walter Fredrickson, Vice President, Harris Corporation.

Session Three: Typesetting, Color Scanning, and Proofing for Commercial Printing

Chairman: Karl Thaxton, Graphic Communications Consultant

"The Magnascan 520 Electronic Dot Laser Scanner," Claude Kersh, Director, Crosfield Electronics, U.S.A.

"The Dainippon Screen Line of Laser Scanners," Walter Schudel, Product Mgr. - Scanners, DS America, Inc.

"The Chromagraph Model 299 & CP340 Laser Recording Color Scanners," Roy Fuller, VP, HCM Graphic Systems.

"The Linoscan 3040 Color Scanner," Maxwell Walker, Vice President, Linotype-Paul.

"PDI Scanners - Today and Tomorrow," Richard Concelmo, Director, Printing Developments, Inc.

"Digital CRT Typesetters Increase Publication Production Profitability," Charles Diekmann, HCM Graphic Systems.

"The Omnitech 2000 - A 5th Generation Laser Typesetter," Anthony Depentima, VP, Mergenthaler Linotype.

"Chromalin® Today and in the Future," Robert E. Adolph, Mgr. Proofing Products, DuPont.

"Spectra Color Proofing Systems," Ed Riggs, Product Manager, Keuffel & Esser Company.

Session Five: Electronic Color Page Make-up

Chairman: Brian Jordan, Technical Director, Crosfield Electronics, Ltd.

"Overview of Electronic Color Page Make-up," Karl Thaxton, Industry Consultant.

"Electronic Page Make-up and Prepress Digital Image Processing," Harvey Raider, Comtal/3M.

"The Hell Chromacom Color Page Make-up System," Roy Fuller, Vice President, HCM Graphic Systems.

"Sci-Tex Response 3000 - Application to Graphic Arts," Roy Luckett, President, Nashville Engraving Co. (NEC).

"Update on the Magnascan 570 Color Page Make-up System," Mel Ettinger, President, Crosfield Electronics U.S.A.

"The Crosfield 570 System in Production," Gene Magginnis, President, Lincoln Graphics.

"The Coulter Prepress System," Manfred R. Kuehnle, President, Coulter Systems Corp.

"Polacolor II as a Graphic Arts Proof," Robert Roden, Marketing Manager, Polaroid Corporation.

"Sensitometry for Laser Film Recording," Milford Kime, Sr., Engineer, Polaroid Corporation.

"The Layout Scanagraph by Dainippon Screen," Walter Schudel, Product Manager-Scanners, DS America, Inc.

Session Seven: Pulling It Together - Text and Graphics for Commercial Printing

Chairman: Brian Chapman, President, HELL Graphic Systems.

"Page Composition of Continuous Tone Images," Robert Buckley, MIT.

"Real-Time Concepts in Full-Page Make-up," Ed Berg, President, Bedford Computer Company.

"Progress in Laser Gravure," Brian Jordan, Technical Director, Crosfield Electronics, Ltd.

"Engraving Rubber Rollers & Plates with CO₂ Lasers," John Webster, Coherent, Inc.

"New Type High-Speed Presensitized Plate (FNH)," K. Shiba, Assoc. Mgr., Fuji Photo Film Co., Ltd.

"KC Technology for Direct Plate Imaging of Text and Graphics," John Keane, Program Mgr., Coulter Computer Corp.

"The Automatic Illustrated Documentation System/InfoColor," Stan Bailey, Information International, Inc.

"Summary of the Conference," S. Thomas Dunn, President, Dunn Technology, Inc.

For additional information write to: Dunn Technology, Inc., 1131 Beaumont Circle, Vista, California 92083.

PANTONE ANNOUNCES PROMOTION

Michael Garin has been promoted to Vice President-Operations at Pantone, Inc. His previous title was Vice President-Manufacturing and Technical Director, and he has been responsible for all custom printed products and graphic arts materials manufactured by Pantone and its licensees. He has worked at Pantone for 18 years.

COLOUR IN VISUAL DISPLAYS

The widespread introduction of colour cathode ray tubes and other display devices has brought many engineers into contact with problems of colour science for the first time. Color science is seldom covered in University and College courses, and to meet this need the University of Surrey is offering a two-day short course on 'Colour in Visual Displays.' The course will cover basic colour phenomena, colour measurement and specification, the visibility and legibility of displays under various viewing conditions, the use of multi-colour displays, colour displays in aircraft cockpits and the lighting of areas where displays are used.

The speakers will include invited experts from the avionics, display and lighting industries and specialists from the University of Surrey. The course is under the direction of Dr. Arthur Tarrant of the Engineering Optics Research Group.

The course will be held at the University of Surrey, Guildford, on March 26th and 27th, 1981.

Enquiries should be directed to Mrs. J.F. Pollard, Bureau of Industrial Liaison, University of Surrey, Guildford, GU2 5XH. (Telephone Guildford (0483) 71281, ext. 457/505). Residential accommodation for the course is available at the University. The basic fee for the course will be £110.

PRODUCTS AND SERVICES

On-Line Control of Paper Color

An on-line color monitoring and control system for paper machines producing tinted or bleached paper grades has been developed by *Altim Control* of Varkaus, Finland. The Altim Colorkeeper continuously monitors paper color and brightness at the dry end of the machine and can control the input dosage of up to three dye components and one bleach component simultaneously in accordance with color specifications preset on the console.

A plasma display on the console shows the set values, the actual values and the deviation between them at any moment. Data may also be printed out, plotted graphically or transmitted to a computer. Color values may be expressed in terms of saturation, dominant wavelength, and brightness or in the L, a, b values used in North America.

It is claimed that the Colorkeeper can reduce the time needed to accomplish a grade change from around 30 minutes to just a few minutes. Apart from increased production, the savings in broke losses and dye wastage can be considerable. Again, on long runs, on-line control can ensure much higher standards of color uniformity than current laboratory-testing methods of quality-control which involve a 2-3 hour time-lag, during which many tons of off-color paper may be produced.

In a typical calculation, it is estimated that on a paper machine producing 8 ton/h, and running colored paper 40% of the time, the amount of dyes wasted per year could be reduced from 100 tons to 60 tons.

Two prototype systems have been in successful production use since the end of 1979 — one on a paper machine operated by Altim's parent company A. Ahlström Oy in Varkaus, the other outside Ahlström. These machines manufacture grades of newsprint, directory papers, and other lightweight papers in the range 35 - 50 g/m².

The Colorkeeper system consists of the color sensor, the control-and-display console, and controls for the dye-pumps. The sensor is a Hunter D43 optical measuring head mounted on a frame. A chain-drive mechanism carries the head over the web, where it remains during normal running. Following a web-break, or for cleaning and scale standardizing, the head withdraws to the side.

A full-spectrum light-source in the head illuminates the web, and the diffuse reflectance at four wavelengths (selected by filters) is measured by photocells. The sensor and the transport mechanism are sealed against dirt and are insensitive to heat, moisture and web-flutter. The sensor is self-calibrating, 'standard' and 'background' plates being brought into use under microcomputer control at appropriate time-intervals.

The measured light values are converted into color values by the microcomputer and compared with the set values previously entered from the console keyboard. Also pre-entered are instructions about the dyes to be used and the pumps associated with each. Using a mathematical model of the whole system, the microcomputer then applies a three-term color-control action by transmitting analogue or digital signals to the dye-pumps.

Further information from: ALTIM CONTROL, P.O. Box 16, SF-78101 Varkaus 10, Finland.

CALENDAR

ISCC Annual Meetings

1981: April 27-28 — Roosevelt Hotel, NY

Williamsburg Conferences

1981: February 9-11 1984: February 12-15
1982: February 7-10 1985: February 9-13
1983: February 6-9 1986: February 7-12

Dry Color Manufacturers Association

1981: The Greenbrier, White Sulphur Springs, WV, June 14-17

Federation of Societies for Coatings Technology

1981: Cobo Hall, Detroit, MI, October 28-30

Society of Plastics Engineers, Color and Appearance Division

1981: RETEC, Chicago.

1981: ANTEC, Boston Sheraton, May 4-7

Gravure Technical Association

1981: Drake Hotel, Chicago, April 7-9

1. Any person interested in color and desirous of participating in the activities of the Council for the furtherance of its aims and purposes . . . shall be eligible for individual membership (By-Laws, Article I, Section 2). Application forms for individual membership may be obtained from the Secretary (address given above).
2. The Council re-affirms its community of interest and co-operation with the Munsell Color Foundation, an independent private foundation devoted solely to the advancement of color knowledge in science, art, and industry. It serves as Foundation Associate of the Inter-Society Color Council. The Council recommends and encourages contributions for the advancement of these purposes of the Munsell Color Foundation. For information, write to S. L. Davidson, NL Industries, P.O. Box 700, Hightstown, N.J. 08520.
3. The Council promotes color education by its association with the Cooper-Hewitt Museum. It recommends that intended gifts of historical significance, past or present, related to the artistic or scientific usage of color be brought to the attention of Christian Rohlfing, Cooper-Hewitt Museum, 9 East 90th Street, New York, New York 10028.

Deadlines for submitting items to be included in the Newsletter are: February 15, April 15, June 15, August 15, October 15, and December 15, in other words, the fifteenth of the even-numbered months.

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