

Inter-Society Color Council *News*

FROM THE EDITOR

The Annual Report will be delayed until the July-August issue. All outstanding member body, project committee and standing committee reports should be submitted immediately to the Editor. Copy must be received by the Editor prior to August 1.

Many members have expressed support and encouragement to the Editor. More concrete help, such as regular contributions to the News and news items, is now appropriate. Let me hear from you. Your suggestions and ideas are always welcome.

ISCC-IES WILLIAMSBURG CONFERENCE ON COLOR AND ILLUMINATION

The Inter-Society Color Council and its Member-Body, the Illuminating Engineering Society of North America, will jointly sponsor a Conference on Color and Illumination – Man Lights, and so Colors, his Environment, to be held at the Colonial Williamsburg Lodge, Williamsburg, Virginia, February 6-9, 1983.

The ISCC-IES Conference on Color and Illumination is directed toward satisfying the aims and purposes of the sponsoring societies: to promote communication between creative workers in coloring and in lighting; to understand, to enjoy, and to exploit to the benefit of all the enormous gamut of variations in coloration which may be brought about by joint control of colorant and illuminant. For this purpose, speakers have been selected from a wide variety of color- and lighting-related fields, providing a program of varied hue and dimension that will enrich the experience of every participant. Come and participate – not only to listen, but to question and comment. Ample time will be reserved for open discussion and for informal presentation of new data and ideas.

The Conference program includes the following invited presentations on Illumination and Color in: The Care and Comfort of the Hospitalized Patient, by Bill Beck of Donald Guthrie Foundation; The Esthetics and Psychological Aspects of Lighting, by George Clark of GTE Sylvania; Photography, by Roy DeMarsh of Eastman Kodak Company; Daylighting, by Ben Evans of Virginia Polytechnic Institute and State University; Architecture, by Raymond Grenald of R. Grenald Associates; Interiors, by Rita Harrold of Westinghouse Electric Company; Energy Conservation, by Al Hart of General Electric Company; Merchandising, by Bob Hillman of Sears Roebuck and Company; Office Lighting, by Jim Kaloudis of Meyer, Strong, and Jones; Public Places, by Candace Kling of Kling Lighting Design; The Work Environment, by Allan Lewis of State University of New York; Paintings and Illustrations, by Joy Turner Luke of Studio 231; The Theatre, by Jim Nuckolls of Incorporated Consultants Ltd; The Museum, by Ed Robinson of the Smithsonian Institute; Colorants and Color Matches,

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by Allan Rodrigues of E. I. du Pont de Nemours and Company; Teaching Students of Architecture and Design, by Bob Smith of the University of Illinois; The Esthetics of Interior Spaces, by Alec Styne of Recio and Styne.

Further information on the Conference can be obtained from the General Chairmen, Charles W. Jerome and William A. Thornton, Westinghouse Lamp Division, 1 Westinghouse Plaza, Bloomfield, New Jersey 07003. For a descriptive brochure with registration form, write the Publicity Chairman, Dr. Fred W. Billmeyer, Jr. Department of Chemistry, MRC 217, Rensselaer Polytechnic Institute, Troy, New York 12181.

CHANGE NOTICE

The symposium jointly sponsored by the ISCC and the American Association of Textile Chemists and Colorists on "Practical Applications on Color Control" will be held March 8-9, 1983. The AATCC Committee RA 36 has announced this change from the previously scheduled date. The meeting will be held in Greensboro, NC at the Holiday Inn – Four Seasons.

SPEAKERS' NAMES REQUESTED

The Canadian Color Society is working toward establishing an interdisciplinary bureau of qualified speakers on color. Such a bureau would make conference planning easier for the various color groups as well as many other associations.

Please forward the name and address of speakers to Mr. Henry Evering, Eidetic General Systems, 43 Eglinton Avenue East, Suite 506, Toronto, Canada M4P 1A2.

A follow-up questionnaire will be sent. The list will then be compiled, categorized and disseminated to participating groups.

NEWS OF MEMBERS

Al Ramsley Honored

Mr. Alvin O. Ramsley was presented the 1982 Technical Director's Gold Pin Award for his research accomplishments in the development of the broad band Woodland camouflage pattern for the new U. S. Army Battle Dress system – a major advance in surveillance protection for the soldier.

This award is the highest technical award made on an annual basis at Natick Laboratories.

Mr. Ramsley has been at the U. S. Army Natick R&D Laboratories since 1953 and is currently Chief of the Countersurveillance Section of the Textile Research and Engineering Division. Mr. Ramsley holds a B. S. in Chemistry from Hough-

ton College an an M. S. in Chemistry from Columbia University. In addition to being the recipient of several past awards, he is the author of several journal articles and the holder of two patents. Mr. Ramsley is a member of the American Association of Textile Chemists and Colorists, the American Chemical Society, the Inter-Society Color Council, the Optical Society of America, and Sigma Xi.

Detroit Colour Council

The Detroit Colour Council looks forward to the fall meeting, featuring ISCC President-Elect, Joyce Davenport of DeSoto, Inc. Ms. Davenport, who is also 1982-84 Chairperson of the ISCC Problems/Projects committees, will update DCC members on problems under study. This timely presentation on September 23, 1982 will serve as a forerunner to the 1984 ISCC annual meeting to be held in Detroit.

The highly successful spring meeting featured Jim Brown of DIANO who made a multimedia presentation, tying together the technological and esthetic elements of color. DCC Secretary, Charles Harvey, announced that 1982 membership is at an all-time high.

W. V. Longley

Vincent C. Vesce

Dr. Vincent C. Vesce, Research Director for Harmon Colors Corp., died on January 27, He was an Honorary Member of the ISCC and received the Godlove Award in 1975.

Dr. Vesce had been responsible for an impressive number of achievements in organic pigment chemistry and technology. Among these are the commercial production of durable maroon and red organic pigments for the automotive industry and the first preparation of transparent colloidal iron pigments which make possible iridescent metallic finishes. The commercialization of thioindigoid pigments in the United States had been an exclusive development of the Harmon Laboratories under Dr. Vesce's directions. He developed the first commercial nonfloculating phthalocyanine blue and pioneered in the production of soft textured, easily dispersed pigments.

In recent years, Dr. Vesce's work was directed toward the preparation of new light fast pigments suitable for pastel coatings and in the preparation of special dispersions for specific industries. His outstanding paper on "Vivid Light Fast Organic Pigments" was published as Part 2 of the June 1956 *Official Digest*.

Dr. Vesce was Chairman of Sub-Group VII (Red Pigments), Sub-Committee XV (Pigments) of ASTM, Committee D-1 on Paint and Related Coatings and Materials; a Fellow and charter member of the American Institute of Chemists; a Fellow of the New York Microscopical Society; and a member of the American Chemical Society, the Inter-Society Color Council and the Chemists' Club.

NEWS OF MEMBER-BODIES

Manufacturers Council on Color and Appearance

In 1972, the National Bureau of Standards and the Manu-

facturers Council on Color and Appearance, Inc. established the Collaborative Reference Program for Color and Appearance. The purpose of the program is to provide participating laboratories a means of comparing periodically the level and uniformity of their testing with that of other laboratories.

The interchange of components and products that must match in color and appearance is of interest to producers of such products as paint, plastics, paper, textiles, food and cosmetics, as well as to the users of these products, which include the automotive and appliance industries, Government and the consumer. Failure to adequately control the appearance and color of consumer products is a major cause of consumer dissatisfaction.

The test programs include 60° gloss, color and color difference (paint chips), color and color difference (primarily near-white papers), and color and color differences, large scale (lightfastness evaluation).

The Color and Appearance Collaborative Reference Program is being expanded to include the following new features for the general Color and Color Difference test method:

1. Data for analysis will now be accepted in the CIE L*, a*, b* space, as well as the Hunter L,a,b space and the CIE X,Y,Z space.

2. The number of metameric samples will be greatly increased to permit better diagnosis of instrument performance.

3. Additional analysis will be provided, including plots of results by color coordinates.

4. A high performance sub-group of the instruments will be created for spectrophotometers. Instruments that qualify for this category will have their data included in the general report sections as well as a special break-out analysis for spectrophotometers. This group will also include analysis of reflectance data at the selected wavelengths.

For answers to any questions you may have concerning the Collaborative Reference Programs or to receive a complimentary copy of a report, contact Collaborative Testing Services, 8343-A Greensboro Drive, McLean, VA 22102, Telephone (703) 442-0433.

Entomological Society of America

A combined meeting of the Entomological Society of America (ESA), the Entomological Society of Canada (ESC), and the Entomological Society of Ontario (ESO) will be held 29 November through 3 December 1982 at the Royal York Hotel, Toronto, Ontario, Canada.

The theme, "Nearctic Entomology: Continental Cooperation," will be featured throughout the week-long gathering of over 2,300 entomologists from around the world. Highlights of the conference will include formal and informal conferences, workshops, symposia, invitational papers, and a special open session for the general public. Topics of paper presentations will include every facet of entomological research. Contact the Editor for further details.

Illuminating Engineering Society

This year's annual IES technical conference, to be held in

Atlanta, Georgia, August 8-12, will provide a new dimension in its presentation of technical and design information.

For the first time, a jointly sponsored luncheon will be shared by both the Design and Application Committee and the Lighting Design Awards Committee, bringing broader coverage of both the technical and design sides of the Lighting Industry to members. A formal slide presentation will showcase the national award-winning installations for 1982. Prior to the luncheon, a workshop will be conducted by the LDA Committee in which a panel of qualified judges will demonstrate the judging process by critiquing several sample projects in which IES members will be invited to participate.

A continuance of last year's mini-sessions or "professional development sessions" will be scheduled throughout the conference. New technical findings dealing with radio control of highway lighting, and solid state HID control systems are just two of the topics which will be presented by the Street and Highway Lighting Committee.

Color Marketing Group

Color Marketing Group held its spring national meeting at the Pheasant Run Hotel, St. Charles, IL., May 2-4th. "Market Hues" focused on new looks in merchandising with presentations on retail store design, high tech at P.O.P. and concept promotion. Workshops to project "Color Directions" were also included. Earlier in the year, CMG sponsored its Central regional meeting, "Pigmented Potpourri" in Itasca, IL. Most recently CMG hosted a roundtable breakfast at NEOCON, the National Exposition of Contract Furnishings, June 17th, Merchandise Mart, Chicago.

Colonial Williamsburg, VA. is the site of the fall national meeting, November 15-17th. The conference will include the launching of "Color Directions" for contract furnishings - workshops to examine color trends for this important industry.

Regional meetings scheduled for the year include: "Color and Design," San Francisco, CA, July 16th; "Great Reflections," Newport, RI, July 30; and "Color and Illumination," Knoxville, TN, September 10th.

1981 Events

1981 CMG officers are: President, William C. Capehart, Tenneco Chemicals, Inc.; Vice President, Jim Brown, Diano Color Systems; Treasurer, Joyce S. Davneport, DeSoto, Inc.; and Secretary, Carol Forbes, C. Forbes Designs. Newly elected to the Board of Directors for three year terms: Doris Crary, Prince Matchabelli; Sharon de Leon, Design Portfolio; Jon Hall, PPG Industries; and Judith A. Lund, Cannon Mills, Inc.

For more information contact: Color Marketing Group, 1000 Vermont Avenue, NW, Washington, DC 20005, (202) 628-4634.

TAPPI Coating Conference Takes Up Challenge of Greater Productivity in Industry

The 1982 TAPPI Coating Conference concluded its 4-day program on May 26 at the Westin Hotel in Detroit, MI. A total of

624 delegates registered for the technical program. Of these, 32% were associated with the pulp, paper, and converting industry; 63% came from allied industries; 1% were consultants; and 4% were affiliated with universities, government, and the press. Some 53 registrants came to Detroit from overseas and Canada.

Delegates represented 54 paper companies from 82 different company locations. At the same time, representatives of some 119 supplier companies registered for the conference.

The conference followed the theme "Productivity - Challenge of the '80s." The technical program opened with a keynote address by TAPPI President S.G. Holt of Consolidated Papers, Inc., who spoke on the printing and writing paper consumption that can be expected in the future. The 10-session technical program enjoyed the strongest attendance rate yet, punctuated by spirited and searching question and answer periods. The program featured several panel discussions (mini-conferences) on such topics as coating processes, printability testing, binders, additives, pigments, and basestock. The panel discussion on basestock was the second of its kind sponsored by the TAPPI Ad Hoc Basestock Committee to promote greater exchange of technical information in this area.

The conference luncheon and awards ceremony were highlighted by the presentation of the 1982 TAPPI Coating and Graphic Arts Division Award and the Charles W. Engelhard Medallion to William C. Walker of Westvaco and by featured guest speaker Norma Pace, senior vice-president of the American Paper Institute.

The conference was sponsored by the TAPPI Coating and Graphic Arts Division, chaired by Charles T. Ray of the U.S. Government Printing Office. Members of the Conference Committee were: J.B. Rivlin of Hartford Corp., Oxford Division, chairman; P.A. Duncan of Duncan Associates, Technical program chairman; J.D. Callahan of Freeport Kaolin Co., publicity chairman; and D.E. Stamp of Monsanto Plastics & Resins Co., local arrangements chairman.

HUMAN RESPONSE TO COLOR?

Regarding physiological and psychological effects for color on human beings, I have long noted two complementary viewpoints: some who credulously have great confidence and faith in color reactions, and those who simply don't want color to have any reaction at all. I have always striven to stay in the middle.

If there are any today who doubt biological and emotional reactions, let them read Barbara B. Brown's, *New Mind, New Body* (Harper & Row, New York, 1974). Dr. Brown presents tangible evidence of reaction through the use of the polygraph and EEG (electroencephalograph) which measures brain waves. She further notes skin reaction to color.

Now further tangible evidence of reaction to color in an environment has been set forth in the Vol. 3, No. 1, 1982 issue of *The International Journal of Biosocial Research* (P. O. Box 1174, Tacoma, Washington 98401). The article is by Harry Wohlfarth and Catherine Sam and has this impressive title: *The Effects of Color Psychodynamic Environment Modification*

Upon Psycho-Physiological and Behavioral Reactions of Severely Handicapped Children. The material contained is drawn from a Research Project in Environmental Modification at Elves Memorial Child Development Centre in Edmonton, Alberta, Canada. The article is illustrated in color.

Here are some of the findings, briefly stated. Involved were "dependent handicapped students." These unfortunates often showed "unprovoked aggressions, tantrums, various manifestations of short attention span, and self abuse."

Three conditions were set up. In Phase I (for 10 school days) orange, brown, yellow were the chief colors used in the classroom. The lighting was cool white fluorescent.

In Phase II (for 13 school days) the chief colors were variations of blue. The lighting was full spectrum fluorescent.

In Phase III (for 15 school days) the room was returned to the conditions of Phase I.

As to reaction to color, with measurements of blood pressure, pulse and respiration rate, results were as follows: "Blood pressure, pulse and respiration rates increase in the following sequence — red, minimum; orange, medium; yellow, maximum. The sequence of decrease is green, minimum; blue, medium; black, maximum."

On matters of behavior, while the article itself (29 pages) may be consulted, here is a brief conclusion. "The study set out to measure the impact of a color and lighting change behaviourally and physiologically on severely handicapped children in their school setting. Of the four behaviours considered, aggressive behaviour, easily defined and scored, appears the most changed. Of the physiological measures, the diastolic blood pressure was taken as the best indicator of stress or relaxation. The subjects had their lowest and most stable readings during Phase II, the color-light test phase of the study."

In effect, the blue environment was most favorable. As one final curious note, "Another interesting phenomenon was the observation that blind subjects were as affected as sighted subjects."

Faber Birren

LETTER TO THE EDITOR

In the Newsletter (No. 277), March-April 1982, there is an announcement of the presentation of the Edgar Tillyer Award to Hurvich and Jameson.

In this report, you say:

"In the early 1950's, almost all color vision theorists supported the trichromatic model, following Helmholtz's position. At that time, trichromacy had a strong mathematical base and was considered somehow more scientific than its rival, Hering's opponent theory. Among the few supporters of Hering were the team of Hurvich and Jameson, who, in a series of now classical papers, established a firm mathematical and scientific base for opponent color vision."

My attention focused on this statement, because I was quite active in the application of opponent-colors scales in the 1940's as well as in the 1950's. In looking at the record, I find that Hurvich and Jameson probably put the opponent colors theory to more quantitative tests than anyone else; but I do

not think it correct to say that "almost all color-vision theorists supported Helmholtz's position." My introduction came through Dr. Judd from Dr. Elliott Q. Adams of the General Electric Company in Nela Park, Cleveland, Ohio. E. Q. Adams proposed a theory for color vision in 1923 which was definitely in the opponent colors category.¹ In 1942, he tested his theory by the use of the new CIE 1931 relationships.² Dr. Judd was a catalyst who transferred proposals and ideas from one worker to another. He definitely was the one who proposed that I work toward the representation of object colors in opponent colors dimensions. Thus, I proposed the alpha-beta coordinate system in 1942,³ and then came the metrics for opponent colors R_d scales in 1948⁴ and the well-known Hunter L,a,b scales in 1958.⁵ I know that others were quite active in this same area. I could cite specifically: Breckenridge and Schaub,⁶ and Francis Scofield⁷ (1943). Color scales and theories of color vision received a great deal of attention during the 1930's and 1940's, as well as in the 1950's, when Hurvich and Jameson were active.

¹E. Q. Adams, "A Theory of Color Vision." *Psychol. Rev.*, V. 30 (1923), p. 56.

²E. Q. Adams, "X-Z Planes in the 1931 I.C.I. System of Colorimetry," *J. Opt. Soc. Am.*, V. 32 (1942), p. 168-173.

³R. S. Hunter, "Photoelectric Tristimulus Colorimetry with Three Filters," *NBS Circ.* C429, 1942.

⁴R. S. Hunter, "Accuracy, Precision and Stability of New Photoelectric Color-Difference Meter," *J. Opt. Soc. Am.*, V. 38 (1948), p. 1094A.

⁵R. S. Hunter, "Photoelectric Color Difference Meter," *J. Opt. Soc. Am.*, V. 48 (1958), p. 985-995.

⁶F. C. Breckenridge and W. R. Schaub, "Rectangular-Uniform-Chromaticity Scale Coordinates," *J. Opt. Soc. Am.*, V. 29 (1939), p. 370-380.

⁷F. A. Scofield, "A Method for Determination of Color Differences," *Circ.* 664, *Natl. Paint, Varnish and Lacquer Assn.*, July 1943.

20th CIE CONGRESS RELOCATED TO AMSTERDAM, AUGUST 31-SEPTEMBER 8, 1983

The Central Bureau of the International Commission on Illumination (Commission Internationale de l'Éclairage, CIE) has announced with regret the postponement of the Warsaw Quadrennial Congress of the CIE until 1987. Instead, the 20th CIE Congress will be held in the RAI Congress Center, Amsterdam, The Netherlands, from August 31 to September 8, 1983. The Congress will be held in two parts, each of four days: (1) A *Conference* including the opening session, invited and contributed papers, and poster presentations, from August 31 to September 3, and (2) *Technical Meetings*, including the CIE Technical Committee quadrennial meetings, joint and special meetings, and the closing session, from September 5 to 8, 1983. Ladies are cordially invited to accompany delegates and a special program is being planned for their enjoyment.

Inquiries regarding delegate status, attendance, and further program details should be made to the U.S. National Committee, CIE, c/o National Bureau of Standards, Washington, D.C. 20034.

TAPPI On-Line Testing Seminar

TAPPI, the Technical Association of the Pulp and Paper Industry, has scheduled an On-Line Testing Seminar for Sept. 22-24, 1982, at the Augusta Hilton Hotel in Augusta, GA. Seminar Chairman H.V. Parker of Continental Forest Industries says that the seminar will help mills to improve product quality and increase the efficiency and effectiveness of quality departments. "The ultimate objective of the seminar is to stimulate the use of on-line gauges by quality control groups that have been primarily involved with lab testing." The program should prove of great value not only to those working in quality control and process engineering, but also to administration personnel and other groups.

Instrumentation experts will discuss on-line measurement of caliper, moisture content, basis weight, smoothness, color, ash content, and opacity. The program will also offer a user's report on the practical aspects of on-line gauges for quality assurance, a practical problem workshop, and a tour of Continental Forest Industries in Augusta to see on-line testing in action.

Future TAPPI Seminars, Short Courses and Workshops

September, 1982

Blade Coating Seminar, September 19-22, Augusta Hilton, Augusta, GA.

On Line Testing Seminar, September 22-24, Augusta Hilton, Augusta, GA.

Introduction to the Practical Aspects of Wet End Chemistry Seminar, September 20-22, Hilton Merrimack, NH.

Retention & Drainage Seminar, September 22-24, Hilton Merrimack, NH.

Sizing Seminar, September 22-24, Hilton Merrimack, NH.

October, 1982

Coating Workshop, October 18-19, Hotel Sonesta, Hartford, CT.

Brown Stock Washing, October 28-29, Sheraton Centre, Toronto, ON.

November, 1982

Paper Physics and Papermaking, Practice Seminar, November 8-10, The Institute of Paper Chemistry, Appleton, WI.

March, 1983

#Paper Machine Drives Seminar, March 1-3, 1983, Peachtree Plaza, Atlanta, GA.

May, 1983

#Bleach Plant Operations Seminar, May 24-28, 1983, Colony Square Hotel, Atlanta, GA.

For more information contact: Technical Association of the Pulp and Paper Industry, One Dunwoody Park, Atlanta, GA 30338, (404) 394-6130 - TWX 810-757-0145.

#Change from previous month's report.

PRODUCTS AND SERVICES

Neurobiologists and Psychophysicists Share Views on Color Vision

Neurobiologists and psychophysicists have conducted extensive research over the years on the topic of color vision, greatly contributing to our understanding of the subject, although approaching it from often widely divergent perspectives.

In November 1980, these two groups met to share their views and research on color vision at a historic symposium in Katata, Shiga-Ken, Japan. As Part 2 of its Summer 1982 issue, *Color Research and Application* has published the proceedings of this meeting, entitled *THIRD TANAGUCHI FOUNDATION SYMPOSIUM ON VISUAL SCIENCE: NEUROBIOLOGICAL AND PSYCHOPHYSICAL ASPECTS OF COLOR VISION*.

Conference participants included 20 speakers evenly divided between the two disciplines, from the United States, The Netherlands, and Japan. Topics discussed included the trichromatic nature of color vision, opponent channels and interactions in the visual system, spatio-temporal factors in color perception, color-related properties of cellular photoreceptors, and post-receptoral color coding.

Discussions highlighted important connections as well as surprising differences between the two groups. The most precise convergence of evidence between neurobiology and psychophysics was found at the earliest stages of the visual pathway. Areas of contention occurred about anatomical identification of elements of the psychophysical model, and visual roles of electrophysiologically characterized cell types.

For further information, contact Shirley Hochberg, (212) 850-6611.

New GATF Textbook on Paper Available

What the Printer Should Know About Paper, a new GATF textbook, is available from the Foundation.

The author of the book is William H. Bureau, a consultant for P. H. Glatfelter, Co., Spring Grove, Pa., where he previously held the position of product manager. Now semiretired, Mr. Bureau has had a lifelong career in the management of research, production, technical services, and sales in the paper industry. He continues to contribute many articles on the various aspects of paper in printing to the industry's magazines.

This new book provides a basic understanding of paper and its manufacture; the various types and individual properties of paper and their relationship to printing, binding, and converting processes; the importance of proper handling and protection of paper; and the need for a more precise approach to paper-related problems. The International System of Units for paper and paperboard now used in most countries is included.

Quality Control Device

The GATF T-Kap, a new quality control device for use in film assembly, is now available from the Graphic Arts Technical Foundation. The device reduces waste in four-color production by preventing misregister.

The T-Kap is used to eliminate the error caused by natural eye movement when aligning the register marks or images in two or more layers of line or halftone films. This type of error in film assembly is called "parallax" error.

The device is placed on top of the stripper's magnifier lens. Three different sizes of T-Kaps are available, which fit the four most common lens diameters.

In the top of the T-Kap is a small hole through which the stripper views the register marks. Since the hole is so small, the eye sees only through the exact center of the magnifier lens. If the T-Kap is not used, the register marks can appear to be aligned when they really aren't because the eye isn't always looking straight down from the focal point of the lens.

Second Report in RPR Series Now Completed

"Control of Color Register," is the latest Graphic Arts Technical Foundation (GATF) Research Project Report.

This is the second in a series of reports being written by George Jorgensen, GATF Physics Division supervisor, on quality control at the press. The first report in the series was "Control of Ink-Water Balance," which was completed last December. The reports are written from the pressman's viewpoint and are designed for use by press operators.

How the pressman's visual impression of color register is influenced by misregister between ink layers and by the nature of the image being reproduced is examined in the report. Color contrast and edge sharpness of detail in the printed image are studied as factors influencing the noticeability of misregister.

The two types of register that must be controlled during a pressrun to maintain color register, control of gripper and side-guide edges of the sheet (press sheet register) and control of the fit of the ink layers in each image on the sheet (internal register), are explained in the report in detail.

A table included in the report summarizes color register control procedures and lists specific problems and possible causes.

"Control of Color Register" is available at \$2.50 each for GATF members and \$5.00 each for nonmembers. The minimum order is \$10.00. To order the report, contact Patricia Farner, Order Department, GATF, 4615 Forbes Avenue, Pittsburgh, PA 15213; phone: 412/621-6941.

GATF Programs Scheduled/Calendar Available

The schedule for the Graphic Arts Technical Foundation (GATF) seminars and workshops for the fiscal year 1983 (September 1982 - August 1983) has been established, and a GATF Calendar of Programs and Events listing the programs, conferences, and meetings currently planned through 1985 is available from the Foundation.

A new seminar, "Electronic Color Scanning and Color Reproduction," has been included in the 1983 schedule. This one-day program will cover the color reproduction process, prepress proofing systems, color separation systems, scanner operations, and photography as it relates to color scanning.

Other seminars to be conducted throughout the U.S. and Canada during the upcoming year are "Color Reproduction Systems for Printing," "Color Stripping," "Paper and Ink Problems in the Pressroom," "Prepress Color Proofing," "Sheetfed Offset Press Problems," "Troubleshooting in Your Printing Plant," and "Web Offset Printing."

A wide range of workshops are scheduled at GATF's international headquarters in Pittsburgh, Pa. On the area of color, workshops will be "Color Controls and Printing Process Standards," "Introduction to Electronic Scanning for Supervisors," and "How to Get the Most Out of Your Scanner."

Workshops on press-related topics are "Sheetfed Offset Press Operating," "Web Offset Press Operating," and "How to Get the Most Out of Your Web Press."

Workshops are also scheduled on "Prepress Production," "Electronic Trouble-shooting in the Printing Plant," "Process Color Stripping," "Paper and Ink Problems in the Pressroom," "Ink Technology," and "Major Plant Expansion."

For a free copy of the GATF Calendar of Programs and Events, contact Melinda Coops, Communications manager, Graphic Arts Technical Foundation, 4615 Forbes Avenue, Pittsburgh, PA 15213; phone: 412/621-6941.

GATF Product Catalog and Price List Available

The latest GATF Product Catalog and an accompanying price list have been published by the Graphic Arts Technical Foundation.

Both publications list the textbooks, reports, quality control devices, audiovisuals, learning module booklets, and career materials available from GATF.

The 34-page, four-color Product Catalog includes descriptions of these GATF products and their uses.

New GATF textbooks are described in the catalog, including *What the Printer Should Know about Paper* and *Graphic Arts Photography: Black and White*. The Foundation's training materials and available aptitude tests are also described.

Ordering information is included to make placing orders for GATF products as simple as possible.

For a free copy of the Product Catalog and price list, contact Terrence M. Mahoney, North American marketing manager, at GATF, 4615 Forbes Avenue, Pittsburgh, PA 15213; phone: 412/621-6941.

SEMINAR ON EFFICIENT OPERATION OF A MODERN PAINT LABORATORY SCHEDULED FOR APRIL 26 & 27, 1983 IN KANSAS CITY

A 1½ day seminar on "The Efficient Operation of an up-to-date Paint and Coatings Laboratory," will be sponsored by the Federation of Societies for Coatings Technology, April 26 & 27, 1983 at the Hilton Plaza Inn, Kansas City, MO.

The program will feature presentations designed to help paint and coatings manufacturers re-evaluate the efficiency of their laboratory procedures. All areas of laboratory design will be discussed, from the planning of a new facility to remodeling an existing one, and will include R&D procedures for both architectural paints and industrial coatings as well as quality control operations for raw materials and finished products.

Well-known coatings industry personnel, experienced and knowledgeable in their fields, will comprise the panel of speakers.

Seminar sessions will be developed and programmed by Royal A. Brown, FSCT Technical Advisor, in cooperation with the Federation staff, which will be responsible for other arrangements.

Complete details will be made available later. In the meantime, further information may be obtained by contacting the Federation of Societies for Coatings Technology, 1315 Walnut St., Suite 832, Philadelphia, PA 19107.

HUNTERLAB SEMINAR SCHEDULE

Hunterlab, has announced the schedule of their 1982-1983 series of seminars on color science. The 2-day seminars are introductory courses to provide appearance technologists and other personnel with a basic knowledge of color science. These

seminars include both theory and practice in the description, specification, and measurement of color.

The first day of the program is devoted to lectures, discussions, and practical demonstrations. The second day includes an applications laboratory session to discuss each participant's particular product requirements.

The seminar schedule for 1982-1983 is:

Sept. 23-24, 1982 – Philadelphia, PA

Oct. 20-21, 1982 – Detroit, MI

Nov. 10-11, 1982 – Charlotte, NC

Dec. 9-10, 1982 – Houston, TX

Jan. 18-19, 1983 – San Francisco, CA

Feb. 16-17, 1983 – Memphis, TN

Mar. 16-17, 1983 – Cincinnati, OH

Mar. 30-31, 1983 – Atlanta, GA

April 13-14, 1983 – Los Angeles, CA

April 27-28, 1983 – Hasbrouck Heights, NJ

May 4-5, 1983 – Kansas City, MO

May 18-19, 1983 – Chicago, IL

June 1-2, 1983 – Greenville, SC

June 8-9, 1983 – Boston, MA

Additional information, literature, and application forms can be obtained from Hunterlab by calling Dorothy C. Miner at 703/471-6870.

The color reproduction insert is furnished by Westvaco.
Photographer, Phil Marco.

CALENDAR

ISCC Annual Meetings

1983: April 10-12 – Louisville, KY, Galt House

ISCC Williamsburg Conference

1983: February 6-9 – Williamsburg, VA,
COLOR AND ILLUMINATION

American Association of Textile Chemists and Colorists

Color Measurement Symposium, March 8-9, 1983 –
Greensboro, NC

American Society of Interior Designers

National Conference, July 28 - August 1, 1982
San Francisco, CA

Federation of Societies for Coatings Technology

Annual Meeting, November 3-5, 1982 – Washington, D. C.

Illuminating Engineering Society

Annual Technical Conference, August 8-12, 1982 –
Atlanta, GA

Optical Society of America

Annual Meeting, October 18-22, 1982 – Tucson, AZ

Society for Information Display

International Display Research Conference, October 19-21,
1982 – Cherry Hill, NJ

TAPPI

Coating Conference, May 15-18, 1983 – San Francisco, CA

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 cooperation 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.

Send newsletter items to:

Ms. Mary Ellen Zuyus
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