Inter-Society Color Council *News*

Number 282 JANUARY-FEBRUARY 1983

ANNUAL MEETING

The annual meeting will be held April 10-12, 1983, at the Galt House in Louisville, Kentucky. Please plan to attend. A separate mailing with detailed information and registration form will be sent to the membership.

IMPORTANT NOTICE TO MEMBER-BODY VOTING DELEGATES

Each member-body of the ISCC has a total of three votes. This includes the Chairman and the two other Delegates each with a vote. In the next few days you will be receiving a notice of the new candidates for the Board of Directors. This is as usual a contested election with six nominees for the three Board vacancies. It is very important you reply immediately as we are running a little late this year. If your delegation wishes to send your own choice of candidate, you must supply the name and biographical information which should be sent to Louis A. Graham, President ISCC. Do not miss the opportunity to vote. Please reply without delay. Thank you JSD.

ANNUAL REPORT ISSUE

All chairmen of ISCC standing committees, project committees and member-body delegations are asked to submit their annual report to their coordinator before June 1, 1983. These reports will then be published in the Annual Report Issue of the News.

FOR THE COLORFUL FUN OF IT!

All of you who work in the volunteer roles for the benefit of ISCC, take notice: *you are appreciated.*

To take notice of the devotion and determination of United Fund workers, amateur actors, rescue teams and the many others who serve our Country's numerous voluntary bodies, is to realize that something really special is at work in the men and women involved. Such voluntary effort is surprisingly productive, perhaps because it is unusually well motivated.

The Inter-Society Color Council also benefits from, and is very grateful for, the unpaid effort given so readily by many of our members. Its value is substantial and difficult to quantify. Taking into consideration only the time spent by your officers and members of the Board of Directors sitting in the many meetings that are necessary and the follow up telephone calls and letters – this would show that many thousands of dollars of value are being made freely available to ISCC.

If ISCC had to add an extra charge to cover this donation of time and effort, your membership fees would be three or four times what they are today – or if not, ISCC would rapidly go bankrupt.

But, thanks to your volunteer work, this will not occur. But we must always be alert to the possibility. Our volunteers play such a vital vole in maintaining the soundness of ISCC that we must keep reminding ourselves about it. The objectives of our ISCC are important and valuable to the community we serve directly and to the country at large. ISCC must continue over the years to attract people who enjoy serving and be a place where they find fellowship and understanding in doing such a service, and where honor and satisfaction are found in the carrying out of all the unnumbered and unpaid duties of ISCC.

From time to time ISCC has taken special note of those who have given exceptional service to the Council. Unfortunately, it is not possible to list all of those who contribute in so many ways. However, ISCC is now adding a Service Award to honor those who have worked exceptionally long, hard and effectively for the Council.

The purpose of my remarks here, however, is different. On behalf of ISCC, I would like to extend to all the individuals and groups who helped the Council over the years to carry out its obligations and to carry the story of color all over the world under the banner of ISCC, my thanks both in my official capacity and personally as well. I have the feeling that you have enjoyed serving "for the colorful fun of it." May there never be a shortage of your kind!

Louis A. Graham
President

AUDIT OF COUNCIL'S FINANCIAL RECORDS FOR CALENDAR YEAR 1981

In the July-August 1982 issue of the ISCC Newsletter the unaudited financial records were reported. In accordance with the Council's By-Laws, an Audit of our financial records is required each year. This Audit has been completed for the year 1981 by the firm of Portner, Toscano & San Filippo, Certified Public Accountants.

Very modest changes have been made in the figures from those reported earlier:

1. Surplus of Income over Expenses was $3,557 for 1981.
2. Fund Balance as of December 1981 was $28,196.

E. T. Connor
Treasurer

ORGANIZATIONAL STATUS

ISCC is designated as a non-profit organization of the 501 C (6) type by the Internal Revenue Service. A "more favored" classification designated 501 C (3) exists. Its advantages are:

1. Lower postage costs. (Would save ISCC approximately $250 a year.)
2. Bequests to ISCC would be tax deductible to the donor.

The Treasurer's office has re-examined the question of: Does

the ISCC qualify for the 501 C (3) status? Postal and IRS sources have advised us that we do not qualify for this "more favored" classification since a number of our Memberbodies are classified 501 C (6) and the ISCC cannot enjoy a more preferred class than the least favorable status of any of its Memberbodies.

The Board of Directors of ISCC after reviewing these findings voted at their February 6, 1983 meeting to discontinue further efforts to seek the 501 C (3) classification.

E. T. Connor
Treasurer

TO: ISCC SUB-COMMITTEE CHAIRPERSONS

The ISCC Annual Meeting will be held this coming April 10-12 at the Galt House in Louisville, Ky. This year we are experimenting with a new format which I believe will be most successful. The meeting will be a three day session beginning on Sunday, April 10. Registration will open at 8:00 AM and the meeting will open with a welcoming speech at 10:00 AM. There will be a poster session scheduled from 10:15 - 11:45 AM. Each sub-committee will be allotted a space and table for the purpose of discussing the scope of the committee, work accomplished and future plans. This we feel will eliminate the tedious and repetitious procedure of briefing attendees at the regular sub-committee meetings. You will be required to have a member attending your booth throughout the poster sessions. Regular meetings (some with three hour programs) will be scheduled for the afternoons on all three days. Running concurrently with the committees are three workshops which will be repeated twice to alleviate as much program conflict as possible. Obviously we will not be able to please everyone but we feel there will be less disappointments than usual. There are some very exciting programs planned and it will be quite difficult to know which to choose. The workshops are as follows:

Illumination: Dr. W. A. Thornton.

Education: Dr. S.F. Bergen, Dr. N.J. Howard, Ms. E. Stevens.

OSA uniform color scales: Mrs. J.T. Luke, Ms. D. Nickerson, Ms. L. Taylor.

The new sub-committee #39 "Color in Gems" with have speakers, slide presentations and samples. This will be a three hour meeting.

"Image Technology" with chairperson Paula Alessi also plans an extensive presentation.

More details will be available at a later date.

ANNOUNCEMENTS

There will be a meeting of the member-body delegation chairpersons at 6:30 PM on Monday evening, April 11. Room to be posted.

There will be a meeting of the sub-committee chairpersons on Monday evening at 6:00 PM, April 11th.

The FSCT delegation will meet in the hotel dining room at 7:00 AM, Monday, April 11, for a dutch treat breakfast. Chairperson, Jacqueline K. Welker.

The CMG delegation will meet in the hotel dining room at 7:00 AM, Tuesday, April 12, for a meeting and breakfast. Bring along any topics you may want to discuss. Chairperson, Anne Dillon.

Problems Committees

At the October Board of Directors Meeting, it was decided to merge Project Committee 18, "Colorimetry of Fluorescent Materials" (now without a chairman) and Project Committee 22, "Materials for Instrument Calibration" until such time as Project Committee 18 again wishes to be a committee of its own. The co-chairmen are C. Sherman and D. Rich. The merged committee will be placed in Group IV.

There are two new problems committees: No. 39, "Color of Gems" (Chairwoman – Theresa Zook Gia) and No. 40, "Color Education Resources and Materials" (chairpersons for this committee are Dr. S. Bergen, Dr. N. J. Howard and Ms. E. Stevens).

The project committee coordinators are assigned the following projects:

Group	*Coordinator*	*Project Committees*
I	Mr. R. F. Hoban	25D, 25F, 25P, 36
II	Dr. A. B. J. Rodrigues	27, 34, 39
III	Mrs. J. T. Luke	33, 37, 38, 40
IV	Dr. W. A. Thornton	18-22, 32, 35

ISCC members attending the annual meeting in Louisville, Kentucky, April 10-12, will have the opportunity to familiarize themselves with both the new committees and the established ones during a poster session to be held from approximately 10:15 AM to 11:45 AM on Sunday, April 10, 1983.

Joyce S. Davenport,
Problems Committee Chairperson

NEWS OF MEMBERS

Therese R. Commerford

Therese R. Commerford, research chemist with the U.S. Army Research and Development Laboratories at Natick, Mass., has

been elected to a third term as vice-president of the American Association of Textile Chemists and Colorists.

A native of Lowell, Mass., and a graduate of the Lowell Technological Institute (now the University of Lowell), Miss Commerford has been with the Natick laboratories since 1978. Prior to that she was supervisor of the optical laboratories of The Derby Co. in Lawrence, Mass.

A member of AATCC since her student days at Lowell Tech, Miss Commerford has served the association's Northern New England Section as vice-chairman (1980) and as a national councilor.

As vice-president for the association's New England Region, she will represent AATCC members in Rhode Island, Massachusetts, Connecticut, New Hampshire, Vermont and Maine.

She is also active in the Optical Society of America, is secretary of the Natick Chapter of Sigma Xi and is secretary of the Inter-Society Color Council.

Founded in 1921 at Boston and now headquartered in Research Triangle Park, AATCC is the world's largest technical and scientific society devoted to textile chemistry, with members throughout the United States and in 50 other countries.

Peter K. Kaiser

At the 1982 Annual Conference of the Canadian Society for Color, Peter Kaiser became the fifth member to be honoured by receiving the CSC Merit Award. This Award is presented from time to time in recognition of outstanding contributions to the Society.

Peter earned the Award by working very hard and effectively for the Society in a number of capacities. He has been Treasurer, Chairman of the 1978 Conference, Newsletter Editor, President-Elect, and Program Chairman of the 1982 Conference. He has been a regular contributor to the Newsletter and has also looked after the Directory of Color Experts and the mailing of Newsletters and other material for several years. He is liaison with the International Colour Association and a member of its Executive Committee for 1982-85. Furthermore he has been a member of the Editorial Board of Color Research and Application since its establishment in 1976 and is a member of the ISCC.

NEWS OF MEMBER-BODIES

News of ASTM Committee E-12 on Appearance

At a meeting on January 24, 1983, at Lake Buena Vista, Florida, an important item on the agenda was a discussion of a proposed revision of the "Practice for Spectrophotometry and Description of Color in CIE 1931 System." The plan of the proposed revision is to divide the material into two parts. One part will detail the basic procedures for obtaining spectrophotometric data from material specimens; the other part will provide a "Method for Color Computation in CIE System." This latter part has been drafted first so as to disseminate as soon as possible material contained in the revision of CIE Publication 15 on Colorimetry. New material in the ASTM document includes four daylight ("D") illuminants that are more representative of actual daylight than the old incandescent-lamp-and-filter combination known as "Illuminant C." However, the latter has been retained for reference. Also included are spectral power distributions for three new fluorescent illuminants, designated F1 (represenative of a cool white fluorescent lamp at 4200 K), F2 (representative of a broad-band daylight fluorescent lamp at 6500 K) and F3 (representative of a narrow-band white fluorescent lamp at 4000 K).

Another important new item being balloted by the Subcommittee on Colorimetry and Spectrophotometry is a "Proposed Practice for Color Measurement of Fluorescent Specimens." Color measurement of fluorescent materials generally cannot be satisfactorily accomplished with instrumentation designed for nonfluorescent materials. The proposed practice requires that fluorescent specimens be illuminated by a source having the spectral irradiance distribution of CIE Standard Illuminant D65. The CIE has not recommended a standard source corresponding to this illuminant, but the practice requires that D65 be simulated within specified limits by the source used in the spectrophotometer.

The Junior Past Chairman of the Committee, Richard Hunter, continues to work diligently for the Committee. He has convinced ASTM that it should publish a compilation of all test methods dealing with Appearance of Materials and has begun to compile them and to list the titles in tables according to the materials involved and according to basic appearance parameters.

The Chairman of the Subcommittee on Terminology has prepared an excellent working document to review the appearance terms that appear in all ASTM methods by listing the terms and the numerical designations of the standards in which they are used. The Committee reviewed the hundreds of terms defined in ASTM E284 in 1981 and made many editorial changes in May 1982, but the work of the Terminology Chairman is never finished.

The Chairman of the Subcommittee on Geometric Properties of Materials has recently been working diligently on new methods dealing with retroreflective materials. In addition the Subcommittee is reviewing and revising previously published standards dealing with evaluation of reflecting characteristics of high-gloss and metallic surfaces.

Interested persons are invited to request minutes of the meeting from Mr. Norbert L. Johnson, Secretary of Committee E-12, 3M Company, 3M Center, Bldg. 582-1, St. Paul, MN 55119.

Harry K. Hammond, III,
Chairman, ASTM Delegation

ISCC and ASTM

Close cooperation between an ISCC Project Committee and a work-related committee of the American Society for Testing and Materials (ASTM), one of ISCC's founding member bodies, continues to prove fruitful for both organizations. Each ISCC Project Committee has a scope that defines the problem on which the committee is working. A project may generate periodic progress reports and should culminate in a final report. The comprehensive final report should be published so that the

information can be disseminated to the widest possible audience. ASTM rather than ISCC has an established mechanism for publication. Some ISCC committee reports may be suitable for ASTM publication. This possibility is worth consideration by ISCC committees. It would preserve their work and be an incentive to work rapidly and diligently.

Some ISCC committees have scopes that parallel those of certain ASTM committees, but ISCC is not organized to develop standards. If the project indicates that standards should be developed, then ASTM, the largest organization in the world devoted to writing and publishing voluntary concensus standards is the logical place to develop them. In ASTM, the work of developing a standard is carried out by a committee composed of producers, users and technical experts in a given area of common interest. Assistance is provided by the full-time ASTM staff.

The work of a committee usually results in the publication of a standard in the Annual Book of ASTM Standards, presently comprising 48 volumes. These standards are also available individually from ASTM, 1916 Race Street, Philadelphia PA 19103.

Examination of the scopes of present ISCC committees indicates that several of them could result in material that would lend itself to publication as an ASTM standard. In some cases, an ASTM committee will be found to be working on a problem paralleling that of an ISCC committee; so cooperation could work both ways.

Some ISCC committees have already begun to work with appropriate ASTM committees. For example, the ISCC committee 27 on Indices of Metamerism has established contact with the ASTM committee E-12 on Appearance of Materials. At the request of the ISCC Committee 37 on Artists Materials, ASTM committee D-1 on Paint and Related Coatings and Materials has established a subcommittee on Artists' Paints and Related Materials. The early efforts of ISCC committee 37 on pigment identification established which pigments are currently used in artists' materials. An ASTM subcommittee is developing a test method for lightfastness that can be used to determine which of these, and other pigments, have sufficient permanance for use in first quality artists' paints. ISCC will, in turn, include information obtained from use of these standards in its future work.

Each ISCC project committee is urged to consider the benefits that might result from cooperation with the appropriate ASTM committee.

H.K. Hammond III,
Chairman, ASTM Delegation
Joy Turner Luke

Member-Body Delegation Update

American College of Prosthodontists

Dr. William A. Kuebker, Secretary, 4311 North Westberry, San Antonio, Texas 78228.

Ms. Linda Wallenborn, Central Office Director, 84 N. E. Loop 410, Suite 273 West, San Antonio, Texas 78216.

Dr. Robert W. Elliott, Jr., Editor (ACP Newsletter), 8732 Falls Chapel Way, Potomac, Maryland 20854.

Delegates to ISCC: Bergen, S. (C) (212) 868-7500, Ext. 672.; DuFort, C. (V); Sproull, R. C. (V); Cain, J.; Edge, M.; Griswold, W.; Gunderson, R.

Color Association of the United States

Directors: Marielle Bancou, Margaret Walch, Dolores Ware.

Dry Color Manufacturers' Association

Delegates from DCMA to ISCC: J. Lawrence Robinson, Chairman, Dry Color Manufacturers' Association, Suite 100, 1117 North 19th Street, Arlington, VA 22209.

M. A. M. Keay, Mobay Chemical Corporation, P.O. Box 419, Hawthorne, NJ 07507.

Mr. Al Schneid, Inmont Corporation, 150 Wagaraw Road, Hawthorne, NJ 07506.

Society of Motion Picture and Television Engineers

Lynette Robinson, Executive Secretary; Jeffrey B. Friedman, Editor.

Delegates to ISCC: R. J. Zavada, D. M. Zwick, E. P. Ancona, Jr., J. G. Baer, G. M. Berggrer, L. M. DeMarsh, G. Fiat, A. C. Schieman, C. B. Neal, Y. G. Hurd.

MEETINGS

1983 Williamsburg Conference Color and Illumination

Summary

Eighty or ninety people, every one of whom was knowledgable, interested, and vocal about the intricacies and charm of lighting and color, gathered at Williamsburg February 6-9 to participate in an active conference jointly sponsored by the Inter-Society Color Council and the Illuminating Engineering Society of North America. Many of the participants had not met each other previously; the two professional groups had not before had the opportunity to intereact so directly, and each brought to the other a wealth of interests and problems, some common and some shared for the first time. The twelve speakers gave absorbing lectures on subjects and in fields which were startlingly diverse, yet were knitted together by the vastly important effects of the lighting on perceived colors. Discussion triggered by the lectures took up, overall, as much time as the lectures themselves (not counting continuations over the excellent meals at which the conferees gathered several times a day). The Presidents of both of the sponsoring organizations graciously started the conference off; most of the other officers of both societies were also present but did not get in the way. The flavor of the participation was international – including England, Canada, Hawaii, Australia – and ageless – including some of the founders of modern understanding of color and lighting, and a fine representation of students, who contributed much themselves. A lot of you were absent, and missed a great opportunity, but a year from now an equally intriguing con-

ference – same time, same place – on "Color in Imaging" will occur. Please join us then!

William A. Thornton

WILLIAMSBURG PARTICIPANTS

Prof. David Wright Miss Joyce Davenport Dr. Alan Robertson

Photos taken by Dr. Tom Webber

Mrs. Joy Turner Luke

Papers

The Inter Society Color Council and the Illuminating Engineering Society of North America co-sponsored a conference at Williamsburg, Virginia on February 6-9, 1983. Twelve papers were presented on "Color and Illumination – Man Lights, and Colors, his Environment." The approximately 90 attendees of diverse backgrounds – artists, designers, architects, illuminating engineers, color scientists – were urged by Lou Graham, ISCC President, to take advantage of this diversity in a "technology transfer" during formal presentations as well as informal gatherings through the three days. Lou Steinberg, IESNA President said: "We have a wealth of information in this [conference] room." He challenged the participants to disseminate this color information well beyond the conference, not only in their professional endeavors, but also to schools, Kiwanis' clubs, etc.

It is often said that a conference with 50% of its papers interesting is a good one. Every one of the papers presented at this conference had information that was understandable, interesting and useful. Bill Thornton and Chuck Jerome must be congratulated on organizing such an outstanding conference. A synopsis of each paper follows.

George Clark (GTE Sylvania) spoke about the psychological impact every design space has on its occupants, whose frame of reference depends on past experience, including culture and background. Considerations in design must include time spent in the room, sequence of experience and legibility of a space in specifying its color and illumination.

Rita Harrold (Westinghouse) discussed the color characteristics, efficiency and application suitability of several light sources including incandescent, fluorescents, metal-halide, high-intensity-discharge (mercury), high pressure sodium and various forms of daylight. Acceptability of some efficiency lamps can be improved by blending with other lights, e.g. some high pressure sodium lamps blended with warm white fluorescents may be quite acceptable in office spaces.

Bob Smith (University of Illinois) solicited audience participation in designing a color course for students of Interior Design or Architecture. The result is reported elsewhere in this edition of ISCC News.

Al Hart (General Electric) advocates "energy management" in illumination rather than "energy conservation," which would sacrifice color esthetics. He showed that lighting accounts for only 5% of energy consumption. Its cost is small, particularly when adjusted for inflation. New lamps have been developed as new technology evolved resulting in dollar savings for the user and increased earnings for the manufacturer.

Alan Lewis (State University of New York, College of Optometry) stated that because of insensitivity of measuring techniques and the scatter of data we cannot conclude that increased illumination boosts performance in the work environment. Reduction in the breadth of the spectrum available reduces the eye's focussing ability (accommodation). Hence the entire spectrum must be included for detailed, precision work. Tests for color blindness are often given improperly, e.g. under inappropriate lighting conditions. They are often too stringent, e.g. 2° qualification tests may be used for tasks requiring 15° judgments.

Bob Hilman (Sears, Roebuck & Co.) asked the audience to think back to the muted household colors common a couple of generations ago. Color-coordinated merchandise packages have changed that and tremendously boosted sales. Sears has over $100 million in catalog merchandise returned annually because of customer dissatisfaction with color. Color reproduction in the catalog is being given greater attention to minimize complaints. 3000°K Ultralume lamps have been introduced for merchandise illumination in Sears stores. They provide a good compromise between various lights encountered in the customers' homes. They have also saved the company $10-15 million in lighting costs.

Bill Beck (Guthrie Clinic, Dept. of Surgery) decried the use of color and lighting in hospitals to satisfy the staff rather than the patients. The pallor of a hospital patient prior to death is transformed into healthier appearing skin tones through skilled use of lighting in funeral parlors. He suggested enlivening the hospital environment through better use of color. He prefers tranquil photo murals to abstract art which may confuse a

psychologically depressed patient. Decorators often overlook ceilings which are a fifth wall for patients lying in bed.

Edwin Robison (Smithsonian Museum) spoke about skillful use of color and lighting in museum displays. Photodegradation is a major concern with fabrics or art on paper which must be displayed, yet preserved, for hundreds of years. All UV light must be filtered out. Even visible light must be minimized in intensity and time of exposure. Color of surroundings must be carefully chosen to display each object to best advantage, e.g. silver appears best against black or blue surroundings; gold against red with enough glare to bring out the highlights.

Allan Rodrigues (E. I. Du Pont) reported on a survey taken by the ISCC Committee on Indices of Metamerism. While few respondents to the survey disagreed with the CIE definition of metamerism, most agreed that "new words, terms or definitions are required to describe phenomena not met by this definition." He also suggested techniques to aid the industrial colorist in attaining color matches less sensitive to changing illumination.

Alec Styne (University of Miami) talked about theoretical considerations in the development of interior spaces which he illustrated with slides.

Jim Nuckolls (Incorporated Consultants Limited) talked about color and illumination in the theatre. Color illumination can affect audience emotional response. Skillful illumination also delineates zones on the stage. Acting areas are often illuminated by 45° spotlights able to leave unwanted scenery in darkness. One spotlight in a warm color with an opposing one in a cool color can give a sense of faked shadows, while still providing sufficient light for the audience on the dark side.

Joy Turner Luke (Studio 231) said that while the maximum contrast in natural scenes is about 1000 to 1, this must be compressed in paintings where the maximum contrast attainable is about 30 to 1. The artist must employ techniques such as simultaneous contrast to create the necessary illusions. Realism in paintings is also attained through careful attention to specular highlights and diffuse reflections. Metallic reflection lends color to specular light whereas ceramic reflection tends to be the color of the illumination. She demonstrated these phenomena with objects in light booths and showed their use in several paintings.

A. B. J. Rodrigues

Symposium on 'Colour Technology For Textiles'

A symposium on 'Colour Technology For Textiles' was arranged at Surat in Bombay Market Auditorium on 14th December 1982 under the auspices of Colour Group of India. The symposium was jointly sponsored by department of Physics, Sardar Vallabh-bhai Regional college of Engineering and Technology, Textile Association of India (South Gujarat Unit) and Surat Colour Chemical Merchant Association. It was for the first time that the academic institution and professional organizations have jointly shouldered the responsibility to promote such high level academic activity in the city. The symposium was inaugurated by Shri Surajram Bachkaniwala, the Managing Director of Himson Group Industries. In his inaugural speech Shri Bachkaniwala said that the Surat has age old name in textile and Jari industries. The local industrial organizations have adopted new man made fibers and have kept pace with the new requirements of the society. It is also necessary to adopt new technology in the dyeing and printing processes. It is highly appropriate that a symposium on colour technology is being arranged in the city to impart the new technical developments in colour science to the delegates of the symposium.

An exhibition on colour technology displaying charts and demonstrations about the modern methods in colour technology was also arranged with the symposium. The exhibition was inaugurated by Dr. Upendra Baxi Vice Chancellor of South Gujarat University. The exhibition was divided into four different stalls. The first two stalls included the charts and demonstrations explaining the basic principles of colour science and colour vision. The third stall was devoted to the application of modern techniques in colour measurements to textiles. The reduction of cost of production and improvements in products were exhibited by keeping various textile samples dyed for the same match using different colour recipe formulae. The fourth stall was devoted to colour science for artists. In this stall various fundamentals of art figures and colour were displayed and the same were applied to textile design. In the opinion of delegates, the exhibition formed an important component of the symposium.

The entire proceedings of the symposium was divided into three sessions from 8:45 a.m. to 5:45 p.m. The first lecture in series was on 'Colour Measurement In Textiles' by the author. In this lecture the principles of colour science, colour vision, and elements of Kubelka-Munk theory were explained with some demonstrations. These concepts were then incorporated in explaining the instrumental colour measurements and colorant formulation in textile.

The first lecture was followed by a lecture on 'Colour Instrumentations For Textile Process House' by Dr. N.S. Gangakhedkar of Asian Paints(I) Ltd. He explained the working of the spectrophotometer and its associated computer. The design features of colour measuring instruments were discussed and information about various colour measuring instruments available in market were given.

The third lecture on 'Computer colour Matching For Textiles' was delivered by Dr. (Mrs.) S.S. Patwardhan, of The Wool Research Association. She introduced the concept of computer colour matching and its advantages. The preparation of samples, and calibration dyeing were discussed at length. The computer aided process of predicting colour recipe formula were effectively incorporated in the lecture.

The fourth speaker of the day was Mr. V.C. Gupte, from M.G. Consultancy Service. He delivered a lecture on 'Economics of Computer Control Systems.' He enlightened the delegates with various types of colour control systems and discussed the financial implications of adopting this new technology. He also explained the return on investment in sophisticated instrumentation and estimated the pay-back time depending on the size of the industry.

The last lecture was on Barriness in Polyamide and Polyester Textured Goods – A Few Remedies. It was delivered by Shri S.P. Chandavarkar, Technical Manager Sandoz (I) Ltd. In

this lecture, the variation in colour uptake by the synthetic fibre leading to weft stripiness were discussed. Shri Chandavarkar explained the physical and chemical factors responsible for the barriness and suggested a few remedies to minimize this effect.

Last session was devoted to open House Discussion on Application of Colour Technology to Textile. Many delegates actively participated in the discussions. Many questions on modern techniques in Colour Technology were raised by the delegates which were discussed and replied by respective speaker. At the end Dr. R.S. Gandhi, summarized the proceeding of the symposium.

185 delegates representing various textile organizations in Gujarat and other States participated in the symposium. The proceedings of the symposium has been brought out in the form of printed book containing details of each lecture.

Surat is well known in the country for its textile industries. In addition to major textile organizations, there are about 150 textile process houses in the city. There is also a centralized organization MANTRA (Man Made Textile Research Association) sponsored jointly by local industrial organizations and supported by the government. In fact, Surat was the most appropriate place to arrange such a programme to disseminate the knowledge of modern Colour Technology.

Dr. H.S. Shah
Professor & Head
Department of Physics
S.V.R. College of Engg. & Tech.
Surat

APPLICATION FOR INDIVIDUAL MEMBERSHIP

Approved at Board of Directors Meeting, February 6, 1983

Ms. Geraldine Bachman 1201 Jefferson Davis Hwy/507 Arlington, VA 22202	Art specialist in the Design Arts Program, National Endowment for the Arts.
Mr. Thomas J. Belanyi 100-305 High Point Drive Hartsdale, New York 10530	Color applications in architectural, interior design, city planning; in material selection for buildings.
Dr. Ruth Brent 137 Stanley Hall University of Missouri Columbia, Missouri 65211	Teaching color as it relates to the interior designer. Beginning research problems relating to the use of color in controlled environments.
Miss Pamela Dalton 899 Green Street San Francisco, CA 94133	Color consultant, art and graphic communication. Interested in human interaction with and response to color and to light. Color instrumentation and measurement. The effects of color on biological and psychological functions.
Mr. Edwin M. Extract Tintometer Company 206 Packets Court Busch Corporate Center Williamsburg, Virginia 23185	Marketing manager for the Tintometer Company, manufacturer of Lovibond (colorimetric analysis instruments). Attended Corcoran School of Art.
Mr. Henry Ho Asian Institute of Gemological Sciences 987 Silom Road Rama Jewelry Building (4th Floor) Bangkok-5, Thailand	Executive Director of the Asian Institute of Gemological Sciences. Interests are in the color of gemstones. Developed a system for assessing color in rubies and sapphires.
Mr. Donald A. Pahl Atari Incorporated 1196 Borregas Avenue P.O. Box 427 Sunnyvale, California 94086	Professional Arts Degree in Industrial and Graphic Design. Presently formulating color pigments that meet special requirements for paint, ink, and plastic. Selects colors, sets tolerances, makes standards, prepares specifications for colors.
Ms. Diana Lee Rijke 7 Pheasant Run Fogelsville, Pennsylvania 18051	Color coordinating an individual's personal fashion and interior decorating. Interested in better understanding of the science of color. The psychology of colors.
Ms. Mary L. Schuler E. I. duPont de Nemours, Inc. Textile Research Lab. Wilmington, Delaware 19898	Supervisor of the carpet dye and color fastness laboratories. Responsible for over-seeing color measurements and related computer work.
Mr. Steve Stephens Ribelin Sales, Inc. 3857 Miller Park Drive P.O. Box 401673 Garland, Texas 75040	Has been involved in quality control, research and development, production, and technical service for pigment manufacturers. Interested in color application, recommending color systems.

LETTERS TO THE EDITOR

Chewing Gum?

Dear Editor:

You asked for it, so here it is – a response from one IFT'er to the article Lou Graham submitted to the ISCC Newsletter, No. 280, Sep.-Oct., 1982. I rose to the bait because questions having to do with color of foods have occupied my mind and time for some years, and I recognized myself as the California scientist who wrote of color emphasis in Roman banquets and the medieval use of spices and plant extracts to decorate various elaborate dishes. Yes, it is true, the first bite is with the eyes. But I have another reason for writing and that has to do with chewing gum.

In the May 10, 1982 issue of the New Yorker, there appeared a glossy, full page color advertisement which pictured a

diamond and emerald bracelet about to embrace a silver package of chewing gum identified as Danish, 12 pieces, called the Stimorol Experience. The legend stated "At last, chewing gum for the rich."

"What has this to do with the color of foods?," you ask. Be patient. Chewing gum after all is something you put in your mouth, and it is traditionally flavored. This particular "status symbol" chewing gum (will someone now publish rules of etiquette for chewing elegantly?) was the subject of a long article in the Sunday, January 2, 1983 edition of the San Francisco Chronicle This World Section (Hawking Haute-Cuisine Chewing Gum by Elaine F. Weiss). This product, manufactured by the Dandy Chewing Gum Co. of Danmark, it turns out, has been sold in Europe and elsewhere for the past 25 years but only recently brought to the United States by a marketing expert, Michael Stone. He was convinced, and thus convinced the Dandy Co., that careful planning and research was needed before the product was launched here. "Let the American consumer tell us how to market Stimorol," he argued, "Whatever about the gum they tell us to change, we will. Only the name and taste are sacred; all other properties are expendable."

The flavor is described as strong and vaguely medicinal, mingling mint eucalyptus and anise. Stone says that "In the first five or six seconds of chewing, the taste is so shocking that your brain tells you you're being poisoned. But once you work your way through the first pack you'll love it."

Well with taste sacrosanct, consumer testing could not involve flavor preference evaluation. But it did involve color, both of the gum itself, a candy coated tablet much like a Chicklet, and of the package. All along, as marketed elsewhere, the color of the tablets have been dyed light blue. In the course of consumer testing in the U.S., samples, alike in all other respects, were presented in a variety of colors – blue, green and white (I wonder why not red or yellow, colors often associated with candies, lozenges and the like?). And here (at last, you say) once again, color was found to influence acceptability. According to the Weiss' report, most of the people tested claimed the blue and green tablets did not taste as good as the white ones. (No mention of how many = most, or level of statistical significance; no mention of criteria for "good" for a product whose "first taste is so shocking that your brain tells you you're being poisoned.") But no matter, white is the coat that Stimorol wears in the U.S.

As for the package design, in the rest of the world, Stimorol is wrapped in an unassuming red and white package with horizontal blue stripes. Not so here, where a shiny silver wrapper festooned with a circle of green, red and blue stripes around the Stimorol logo won out over a somber dark blue wrapper with thin white stripes, like an old school tie ("for the very adult"); a package illustrated with an explosion of yellow stars (to "blast away boredom"); a wrapper with a bright green, Listerine-like label (for "mouth revival"); and a wrapper with a silhouette of a male and female almost kissing with red circles radiating from their mouths (for "breath confidence"). So with the shiny silver wrapper (suggesting opulence?) and three slogans: (1) "very Danish, very expensive;" (2) "the taste is even more beautiful than the package;" and (3) "at last, chewing gum for the rich," the pristine white pellets in their silver wrapping are now available to status seekers at the inflated suggested retail price of 40¢/package (up from 25¢/package). I refrain from further socio-economic comment. Color, it does appear, is powerful.

Angela C. Little,
Professor

More on Human Response to Color

To the editor:

The note of Faber Birren (Sep.-Oct. issue), "Blue Light to Relieve Pain of Arthritus" is entirely misleading. Mr. Birren quotes a number of items from the paper which imply that blue light was found to relieve pain of arthritis. Why did he neglect to also quote the following from the paper:

"This difference (i.e., between the control, red and blue filter conditions) was *not* statistically signficant . . . . . In multiple analysis of covariance tests the F ratios for the variables of filter, barrier, and group were *not* significant . . ." (emphasis added).

In fact, the paper offered no statistically significant data to support the assertion that the "color" of the light had any affect on arthritic pain. Why the International Journal of Biosocial Research chooses to publish such a paper is not understandable. What is also not understandable is why Mr. Birren chooses to abuse our trust by such omissions.

Richard Corth
Research & Development
Westinghouse Electric Corporation

And Again

Does color arouse physiological responses? Few will deny its emotional and esthetic impact, but is the human body itself in any way affected biologically? People will love or hate certain colors, music, foods, as personal spirit dictates, but measurements of these conceits hardly seems worth bothering about. With color, however, there are forces lined up on one side convinced of color influences, and on the other side completely skeptical if not prone to denial. The most orthodox scientist will, because of actual proof, accept color effects on plants, insects and many forms of lower life, but where man is concerned intolerance for the actions of color often rises like a stone wall.

One might naively ask, if color has no profound influence, does it make any difference if the habitats of this world are colorful or merely white and gray?

As a consultant in the field I have worked with color and people for many decades. To ask if color in an environment affects people is to beg the question. Of course it does or people wouldn't be so insistent on its use. Are proofs and measurements really necessary? Why be upset over extravagant claims for color; overlook them and rely on your own observations. Bear in mind that complete monotony and isolation is one of the devices of brainwashing, and solitary confinement is a wretched form of punishment. Probably it is fair to grant that man's world needs color and wants it. Which then leads to the

debatable issue of yes or no on physiological response.

I have reached a theory and conclusion which I would like to present in this essay. A few years ago a lot of sensational publicity in the press and on TV was devoted to the application of a brilliant pink color (Munsell 1.25R 6/12) in the holding rooms of prisons into which came convicted felons headed for cells behind bars. Because much that was printed and said was highly exaggerated, many incredulous mortals didn't hesitate to say that the matter was nonsense.

Here is a brief review of the story. In early 1979 the U.S. Naval Correction Center in Seattle, Washington installed a pink holding cell to which newly sentenced men were brought on arrival to the prison for initial confinement. According to reports, aggressive behavior was reduced, the pink color presumably having a moderating effect on anger, accompanied by a lessening of muscular strength in the unfortunate, enraged individuals.

True? The news promptly became a source of national press and TV frenzy, much of which riled the sensibilities of many. However, the pink room was tried for several months, following which a statement was issued by the Bureau of Naval Personnel, Law Enforcement and Correction Division at Washington, D.C., as follows: "Since initiation of the procedure on March 1, 1979, there has been no incidents of erratic or hostile behavior during the initial period of confinement." This is a branch of the U.S. government speaking!

Promptly after, similar results were achieved at the Clara County Jail in San Jose, California, and for a Center for Delinquents in San Bernardino, also in California. Since then scores of correctional institutions have equipped rooms with the pink color, but not invariably with success. The pink color (exposure was recommended for periods up to fifteen or so minutes only) was thought to affect the endocrine system, causing a tranquillizing suppression of the human muscular system.

I am willing to come to the defense of the notorious pink out of experience in my own work. Let me explain. Man is the only animal with the capacity and ability to have his brain override his emotions. If a person insists that pink is not a warm color, for him the color could be declared bland or neutral. (A polygraph might contradict this stated reaction by showing a rise in blood pressure, pulse and perspiration rate despite his determined pronouncement.)

Now to my theory. It has been my pleasure and good fortune to work with color and the mentally retarded. Some of this effort has become well known and has been recorded nationally on TV in both the U.S. and Canada. The mentally retarded are children in mind and heart and react to color – along with other things – freely and spontaneously. They like color and will pick it over grayness without the slightest hesitation, as do all children. Yet, note the following: you cannot question them about this, for rational wisdom doesn't come easily. And if you were to clamp electrodes on their flesh to measure physiological responses you would scare the wits out of them. You must rely more or less on your own observations. A Dutch psychologist has written, "Only facts and the laws governing them are provable: concrete experiences are not."

While I have not built entire pink rooms, I have exposed broad areas of a flame red (Munsell 5R 6/10), usually as an end wall and have witnessed the delight – visible in eyes and bodily movement – among my mentally handicapped observers. (Usually a flame red wall will be only one of several other bright hues spaced throughout an institution for the sake of variety and a colorful change of visual pace during the course of a day, a procedure that has been quite successful.)

The theory of pink. If a person in an agitated and furious state of mind is confronted and surrounded by a brilliant pink in an environment, it is altogether conceivable that the pink color will tend to shock him out of his temper, calm him down and physically lessen "erratic and hostile behavior." I am frankly not too concerned about muscular responses as I am about an obvious and clearly noticeable lessening of belligerence.

On the other hand, if a law-abiding citizen, with a calm and relaxed temper, is exposed to the same pink environment, instead of it having a calming effect it may excite and irritate him. If the pink aroused a mood, it probably would be a critical one, accompanied by an expressed irritation.

There is a difference, and a big one, between the attitudes of mentally retarded or mentally distressed mortals and the attitudes of rational and normal beings. In one instance, variety of color (or other sensations) tends to have a relaxing effect by diverting attention, fears, anxiety, bewilderment, from within a person to the world or space beyond him. Conversely, the self-contained mortal may react unfavorably to bold color and consider it a distasteful intrusion on his more benign inner world.

Here are a few lessons I have learned in my experience with environmental color.

– Variety is indeed the spice of life. The one state difficult for a person to tolerate is unrelieved monotony. National conferences are held on the hazards of what is known as sensory deprivation. The English psychologist, R. L. Gregory has written, "It seems that in the absence of sensory stimulation the brain can run wild and produce fantasies which may dominate." Human surroundings need color.

– Again on variety, another English authority, M. D. Vernon, has stated, "Thus we may conclude that normal consciousness, perception and thought, can be maintained only in a constantly changing environment." Any steady and unrelieved stimulus will become boring. Any unrelieved color will tend to fade out as the eye and brain adjust to it. With this fact noted, a proper use of color in such buildings as hospitals, schools, neuropsychiatric facilities should rely on the common use of bold colors over end walls and the planning of different colors in different locations or rooms. Thus the "fading out" problem will be canceled by treating eyes and emotions to constantly shifting displays of different hues.

– If there is not much to claim for direct color therapy, let no one doubt the efficacy of psychotherapy for color. So many of human ills may arise from psychic (inner) distress – ulcers, hives, hypertension, shortness of breath, phobias. Color here has a delightful and fully salubrious effect by distracting a person from the deep-set irritations that pester him.

Color is good for the eyes, the soul and the body. Whether its effects are biologically measurable or not, color is one of the indispensable ingredients of human life.

Faber Birren

COLOR LIBRARIES, BOOK COLLECTIONS AND BIBLIOGRAPHIES

Published information on color is not abundant, and there are few libraries that have comprehensive collections. The Royal College of Art, London, has over 3,000 volumes. The Faber Birren Color Library at Yale University contains about 500 volumes, soon to be microfilmed.

There are ISCC members who collect books dealing with color. Dick and Marjorie Ingalls have approximately 500 books that cover a very wide scope. They invite anyone who has a collection of color books to send them a list of their volumes. Anyone who wishes to trade or sell books dealing with color or color instruments of historical note, or would like to trade bibliographies, may write to Dick and Marjorie Ingalls, c/o Armstrong World Industries, P.O. Box 3511, Lancaster, PA 17604.

ANNOUNCEMENTS

Color Today

The Canadian Society for Color's 11th ANNUAL COLOR CONFERENCE will be held May 11-13, 1983 at Ryerson Polytechnical Institute in Toronto, Ontario.

Presentations will include applications in art, design, computer graphics, psychology and marketing. The event will be launched with a wine and cheese reception and include a banquet at Ontario Place. For a brochure with complete details, write V. Wilensky, President-Canadian Society for Color, 84 Oak Avenue, Thornhill, Ontario L4J 1T6.

Color Technology Programs to be Held at RIT

Dr. Fred W. Billmeyer, Jr., will present three nationally-known courses on color technology this summer at Rochester Institute of Technology (RIT). The courses – Color Technology for Management, Principles of Color Technology, and Advances in Color Technology – are part of an annual program being presented for the nineteenth time by Dr. Billmeyer, professor of analytical chemistry at Rensselaer Polytechnic Institute (RPI) and founder and director of the Color Measurement Laboratory there. Max Saltzman of the University of California at Los Angeles, who is an adjunct professor of color science at RPI, will also be a featured speaker at the programs.

Color Technology for Management will be offered June 1-2, 1983. It covers the principles of color technology as they influence management decisions. The program explores the physical and perceptual aspects of color, color measurement, color differences and tolerances, and color matching. Typical problems in the production and sale of colored products will be confronted, and managerial solutions based on the principles of color technology will be presented. The course will show how to improve productivity by applying the principles of color technology to reduce waste and make better use of manpower and equipment. The course is designed solely for executive and management personnel responsible for the production and sale of colored products. Anyone directly involved in color matching and color control is encouraged to enroll in either or both of the other two courses. Tuition for Color Technology for Management is $550.

Principles of Color Technology will be offered twice, June 6-10 and June 13-17, 1983. The course provides information on color description, color-order systems, measurement principles, color-difference calculations and tolerances, computer color matching, and colorant properties. Laboratory periods provide hands-on experience in measurement, computation and problem-solving using the latest commercial equipment. The course is of value to individuals from a variety of disciplines and organization levels who are interested in color science, and especially to industrial personnel involved in color matching and color control. Attendance is limited to ensure maximum participation in laboratory sessions. Tuition is $600.

Advances in Color Technology will be offered June 20-24, 1983. It provides current, advanced-level information on developments in and techniques of color science and technology. Topics include instruments, calibration, and measurement errors; terminology and standards; color spaces and color differences; color appearance; and turbid-medium theory and color matching. Selected advanced laboratory workshops are included. The course is designed for those with two or more years of direct experience in instrumental color measurement. Industrial personnel involved in color matching and color control at an advanced level are cordially invited. Elementary material is *not* included, and applicants without previous experience should enroll in Principles of Color Technology. Tuition for Advances in Color Technology is $600.

For more information on these programs, contact Val Johnson, T&E Center Seminar Coordinator, Rochester Institute of Technology, One Lomb Memorial Drive, P.O. Box 9887, Rochester, NY 14623; (716) 475-2758.

AATCC International Dyeing Symposium

"New Challenges in the Art and Science of Dyeing" is the theme of the AATCC International Dyeing Symposium to be held April 14-15, 1983, at the Dunfey Hotel in Atlanta, Ga.

Every three years AATCC Committee RA91 on Applied Dyeing Theory organizes an international symposium on dyeing where dyers and scientists can meet and familiarize themselves with new developments in the field. These symposia provide an interface between practitioners and theoreticians across which ideas, challenges and solutions can flow freely in both directions. The steering committee has put together a program which emphasizes four specific areas that are of current interest and constitute particular challenges to the ingenuity of the dyer. These are – the structure of the substrate that we want to dye, the need to conserve energy and dye costs, the opportunities offered by computers and microprocessors and finally the special problems that we encounter in carpet dyeing. A number of excellent speakers from the USA and abroad will present papers in these four areas and there

will be ample time for questions and exchange of ideas.

A Thursday afternoon session on Color Science will be of particular interest. Louis Graham will moderate a panel of distinguished speakers including Ralph McGregor ("Perception of Stripiness and Optical Illusions"), Wayne C. Tincher ("Modern Applications of Color Measuring Systems") and Ralph Stanziala ("Color Communications – Seeing Eye to Eye").

To register for the program or to obtain additional information, please contact Joan Mitchell at AATCC, P.O. Box 12215, Research Triangle Park, N.C. 27709 (Phone 919-549-8141).

Topics and Speakers Set for FSCT Paint Lab Seminar

Programming arrangements have been completed for "Efficient Operation of An Up-to-Date Paint and Coatings Laboratory," a 1½ day seminar sponsored by the Federation of Societies for Coatings Technology to help manufacturers re-evaluate the efficiency of their laboratory procedures. The event will be held April 26 & 27 at the Hilton Plaza Inn, Kansas City, MO.

Dr. Orville H. Bullitt, Jr., Technical Manager – Finishes Div., E. I. duPont de Nemours & Co., Inc., Wilmington, DE, will deliver the Keynote Address, "Designing the Laboratory to Fit the Business."

In other program presentations, well-known paint scientists will discuss all areas of laboratory design and operation – from physical arrangements of facilities and equipment and the need for scientific instrumentation, to R&D procedures for both architectural paints and industrial coatings, and quality control operations for raw materials and finished products. They will cover such topics as how they plan an R&D budget, how they develop cooperation with raw material suppliers, how they evaluate the effectiveness of their personnel, and how they communicate with the sales department and top management.

Howard Jerome, Vice-President and Technical Director, Spatz Paint Industries, Inc., St. Louis, will be Seminar Moderator.

For complete program information and registration/housing forms, contact Federation of Societies for Coatings Technology, 1315 Walnut Street, Suite 832, Philadelphia, PA 19107, (215) 545-1506.

Color Workshop Added to GATF Schedule

A color separation workshop has been added to the Graphic Arts Technical Foundation (GATF) 1983 schedule. The program will cover direct-screen color separation and an introduction to electronic scanning.

This workshop mainly consists of hands-on sessions to offer participants the opportunity to apply their knowledge and experiment with new techniques. Program time is equally divided between direct-screen and scanning methods, but special arrangements can be made for participants who wish to spend the entire week on direct-screen color separations.

The program includes information on color proofing systems, press considerations, materials, and densitometers. Attendees should have a working knowledge of line and halftone photography to fully benefit from the sessions.

Scheduled for April 25-29, 1983, the workshop will be held at GATF's international headquarters in Pittsburgh, Pa. For brochures and more information, contact Terrence M. Mahoney, North American marketing manager, Graphic Arts Technical Foundation, 4615 Forbes Avenue, Pittsburgh, PA 15213; phone: 412/621-6941.

Retroreflection – Definition and Measurement

A report, in English, concerning "Retroreflection – Definition and Measurement" has been published by the Commission Internationale de l'Eclairage (CIE Publication No. 54). The publication is the result of active cooperation between different countries and has been produced by CIE Technical Committee 2.3 (Materials) which has representation from 24 countries.

In this report the following items have been considered in detail:

– Recommended terminology, including main definitions and units, which is needed for characterizing the specific effects of retroreflection.

– A new CIE angular reference system, including an appropriate goniometer for laboratory testing and conversion formulae for systems previously in use. This new system is well-known in Europe and has already been officially accepted in the United States and Canada.

– Photometry, including consideration of calibration techniques and the accuracy of measurement. It is pointed out that the apertures of the source and photometer head are important for a correct measurement and that the adjustment of the observation angle requires particular care, especially when narrow retroreflected beams are examined.

– Colorimetry, including advice for obtaining reliable measurement of colour, which may depend upon the geometric configuration of the observation conditions.

Copies of this document, CIE Publication No. 54, may be obtained postpaid at $20.00 each from:

Dr. Klaus D. Mielenz, Secretary, U.S. National Committee, CIE Rm. B-306, Metrology Building, National Bureau of Standards, Washington, DC 20234.

Payment should accompany the order and should be made payable to "U.S. National Committee, CIE."

1983 FSCT Guide to Coatings Courses Now Available

Publication of the 1983 edition of "Guide to Coatings Courses, Symposia, and Seminars," compiled by its Educational Committee, has been announced by the Federation of Societies for Coatings Technology.

Based on information supplied by the Constituent Societies, educators, and various industry sources, the "Guide" lists a comprehensive variety of coatings educational offerings in the U.S. and Canada, grouped by geographic region.

The listings are updated annually to reflect current information.

Copies of the 34-page "Guide" (8½ x 11 in.) are available at a price of $5.00 each, postage paid.

To order, write to Educational Committee (Coatings Courses), c/o Federation of Societies for Coatings Technology,

1315 Walnut Street, Suite 832, Philadelphia, PA 19107 (215/545-1506).

New Recommendations for Office Lighting

The Illuminating Engineering Society of North America annouces the publication of its newest recommended lighting practice for OFFICE LIGHTING.

Recently revised by the IES Office Lighting Committee, the 44 page publication recognizes the many new trends in office layouts and operations. Sections cover the principles and criteria for the plan, design, and energy management of lighting systems for office tasks and environments. It now includes the new IES method for selecting illuminance values for design.

The document passed a rigorous review and has been approved by the American National Standards Institute as an "ANSI approved" standard. It is designed for use by lighting designers, architects, engineers, contractors, building or office managers and owners. New photos and illustrations have been added as well as an updated table of light source characteristics and a bibliographic guide.

RP-1
American National Standard
OFFICE LIGHTING

Published by the Illuminating Engineering Society of North America, 345 E. 47th Street, New York, NY 10017. ISBN 0-87995-011-0, 44 pages, paperback.

CHARLES M. SCHULZ
2162 COFFEE LANE
SEBASTOPOL, CALIFORNIA

August 13, 1965

Mr. Louis A. Graham
Box 455
Marcus Hook, Pennsylvania

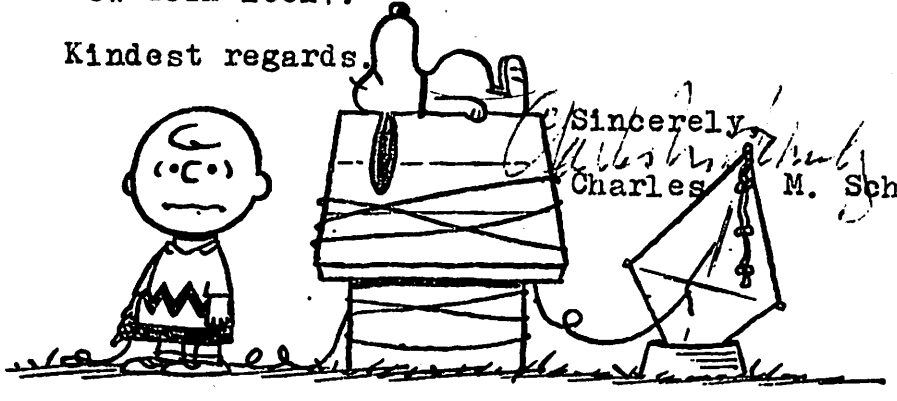
Dear Mr. Graham,

Thank you for your letter asking for the original strip about the grass turning green that I drew several years ago. I am sorry, but it has since been given out to someone else.

Using the information you sent me I drew another strip about "grass green" which will appear in print on September 10th. If you wish to have this original, simply write to Mr. William Anderson at the syndicate and he will send it to you as soon as they have finished with it. The address is United Feature Syndicate, 220 East 42nd Street, New York 10017.

Kindest regards.

Sincerely,
Charles M. Schulz



Dear Ms. Newsletter Editor:

It is with some regret that I take the opportunity of using your *Newsletter* as the method of making right publicly a wrong which has existed for a number of years.

Specifically, I refer to page 89 of the first edition of the *Principles of Color Technology* by Dr. Fred W. Billmeyer and Max Saltzman, and also to point out that the grievous error is repeated on page 31 of the second edition of this notorious book. Specifically, I refer to the cartoon by Charles Schulz, creator of Peanuts, wherein Linus is informing Sally of the properties of "grass green."

There are several sins in these references, both of commission and omission. First, the authors were apparently unaware of the existence of a previous Charles Schulz' Peanuts strip on "grass green" wherein Charlie Brown says to Lucy, "the grass is turning green." Lucy then replies in combination with her remark, "what shade of grass green?," wherein she lists numerous shades of grass green, finishing with "grahame greene."

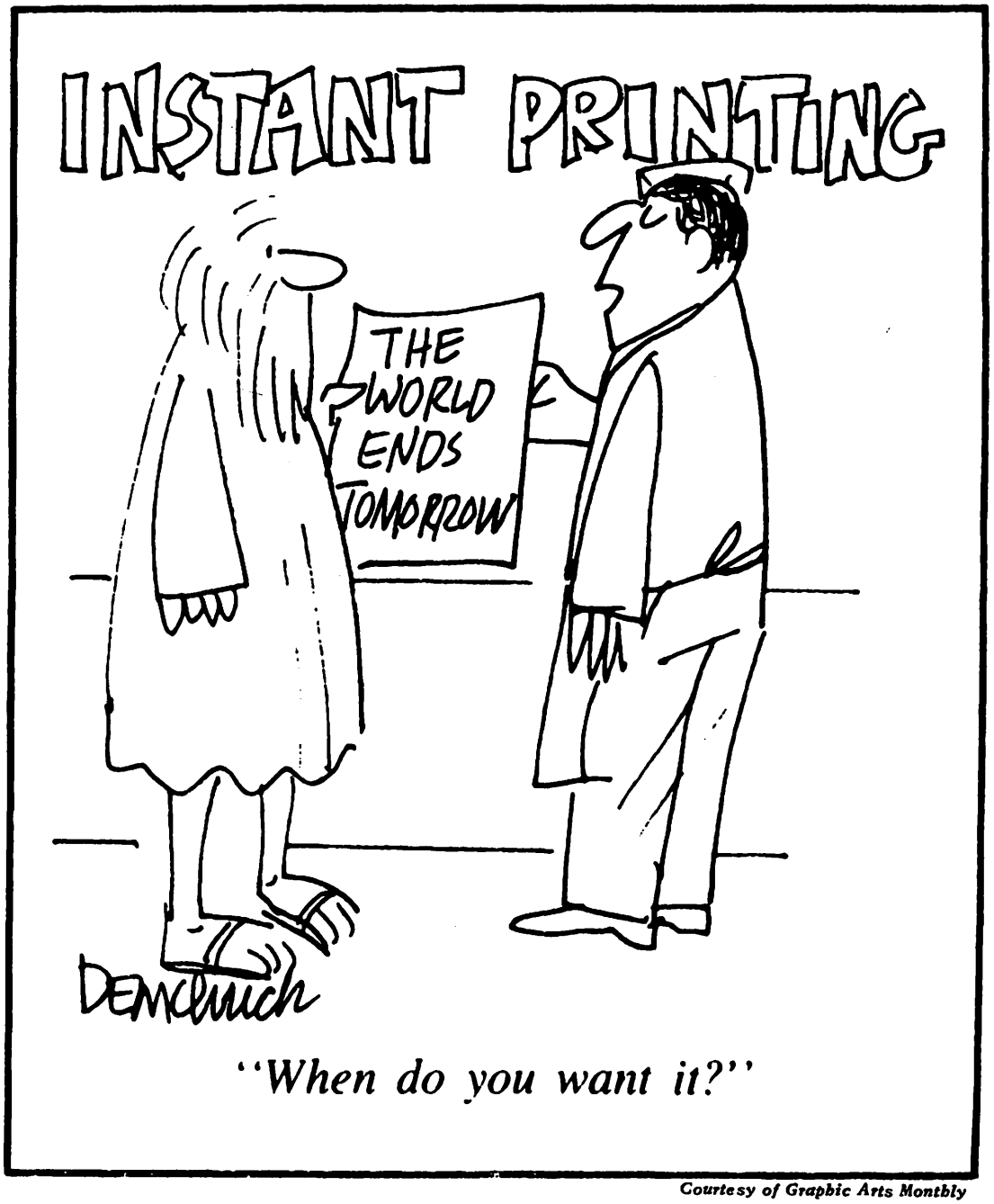
You can see why I wanted to possess a copy of this previous strip (I am still offering a reward of $5 U.S. for a copy of the original strip, not one from one of the poorly reproduced "Peanuts" books). In an effort to obtain a copy of the original strip, I wrote to Charles Schulz, and requested a copy. At the same time, I enclosed the "official" description of grass green, which is given in the second edition of Mearz & Paul, "The Dictionary of Color." Mr. Schulz very graciously replied himself (no secretary would have made the typing errors that he did), and said that the original grahame greene strip was no longer available. He did, however, draw a new strip, which was published in 1965 and is the one reproduced in that notorious book, "Principles of Color Technology." The evidence I offer in support of this as being the true story of the second grass green strip is a copy (enclosed) of the letter I received from Mr. Schulz. He certainly is a gracious man! I did obtain the original artwork for the second grass green strip, and it is mounted on the wall of my office at the present time. However, there is an

error in the second grass green strip which is neither the responsibility of me nor Mr. Schulz, but certainly should have been noted and corrected by the authors in their notorious book, "Principles of Color Technology." There is a typo or misspelling in the original Maerz & Paul "Dictionary of Color." You will note (see copy enclosed) that Linus refers to "a temperature zone." This should, of course, refer to a "temperate zone." I am sure that Maerz & Paul were embarrassed over this misspelling, and would have appreciated a correction by the authors noted above.

As part of the prerequisite of my current high office (and who knows when such an opportunity will arise again!), I ask and even direct you as editor of the *Newsletter* to reproduce this letter, the cartoon strip as noted and the letter from Mr. Schulz.

Should Mr. Saltzman and Dr. Billmeyer be moved to write a letter of humble apology, I will try to receive same as graciously as Mr. Schulz received my request for the copy of the "grahame greene" original strip.

Louis A. Graham
President

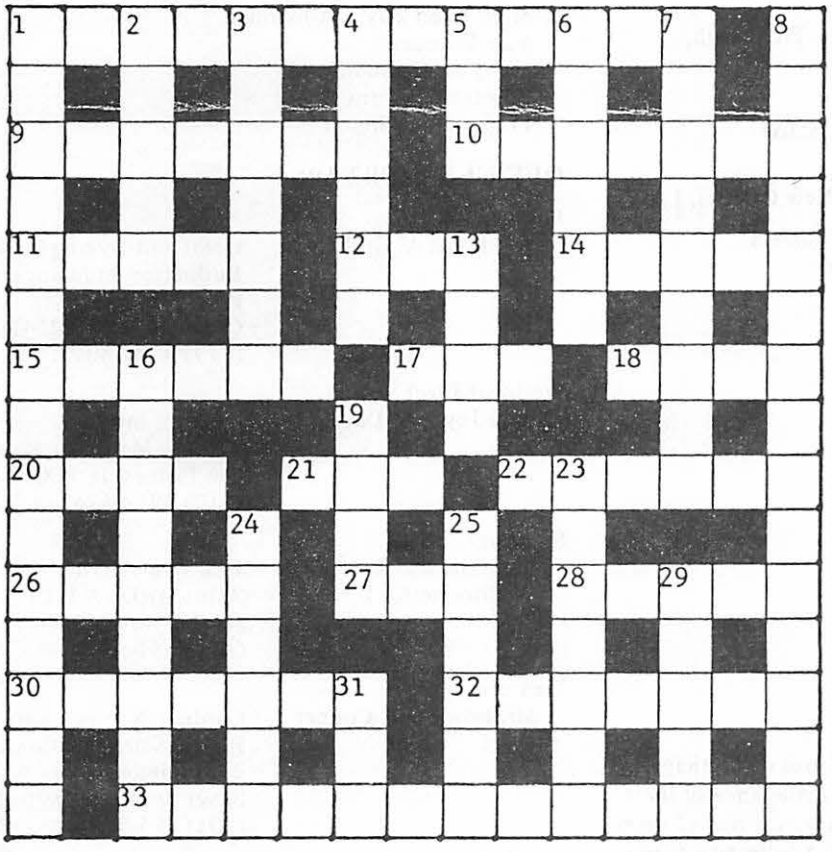


Courtesy of Graphic Arts Monthly

Crossword puzzle

By Mary Virginia Orna

Chemical Christmas Colors



Across

1 Green-yellow compound used in lithography
9 Colorful name for measles
10 Rock basses and certain gravies
11 Sky or heaven: Comb. form
12 Medium for red, green, and other pigments
14 Gray
15 Saturated
17 How sashimi is eaten
18 ___ green or Rinmann's green
20 Houston-based org.
21 Intermediate between ATP & AMP
22 Woodland deities of Greek myth
26 Neutral shade
27 Medium's medium
28 It can be grand
30 Acts like glue
32 "William Tell" composer
33 Most stable of the green pigments

Down

1 Red compound with a formula weight of 388.14
2 USSR particle accelerator site
3 Source of some red pigments
4 Renoir's "In the ___"
5 Paddle
6 ___ red, variety of iron oxide pigment
7 Synonym for cobalt bloom, red coloring for glass
8 Red compound of element no. 33
13 Element contained in some red pigments
16 Red acid of element no. 83
19 Common red pigment: Formula
23 Thick pigment application
24 Fright
25 Brief glimpse
29 Excuse
31 Addition product

Reprinted Courtesy of AMERICAN LABORATORY, v 14, n 12, 1982

CALENDAR

American Ceramic Society
Annual Meeting, April 24-27, 1983 – Chicago, Illinois

Canadian Society for Color
Annual Color Conference, May 11-31, 1983 – Toronto, Ontario

CIE
20th Session, August 31 - September 8, 1983 – Amsterdam, Netherlands

Federation of Societies for Coatings Technology
Annual Meeting, October 12-14, 1983 – Montreal, Canada

Graphic Arts Technical Foundation
Annual Spring Meetings, March 23, 1983 – Pittsburgh, Pennsylvania

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

Optical Society of America
Annual Meeting, October 17-21, 1983 – New Orleans, LA

Society of Photographic Scientists and Engineers
Annual Conference, May 31 - June 3, 1983 – San Francisco, California

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 reaffirms 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, 42 Kemp Avenue, Fair Haven, NJ 07701.

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 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
Hunter Associates Laboratory, Inc.
11495 Sunset Hills Road
Reston, VA 22090

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