

# Inter-Society Color Council *News*

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### ANNUAL MEETING:

#### BUSINESS AND AWARDS LUNCHEON

One of the highlights of the business luncheon at the Annual Meeting held in Chicago, IL, April 9-13, was the presentation of the Nickerson Award to Walter Granville. Paul Hoffenberg, chairman of the selection committee for this award, read the citation (Printed below picture). He remarked before reading the citation that Walter Granville had been actively serving the Council for longer than he (Paul) had been alive.

Number 319

May/June 1989



*President Luke presents the Nickerson Award to Walter Granville*

### 1989 NICKERSON SERVICE AWARD

The ISCC Service Award was established by the Board of Directors in 1980 to be presented for "outstanding long term contributions towards the advancement of the Council and its aims and purposes." In 1986 the award was redesignated the "ISCC-Dorothy Nickerson Service Award" to perpetuate the memory of Dorothy Nickerson who had passed away shortly after receiving the 1985 Award. The 1985 Award Citation for Dorothy's outstanding service to the ISCC, dating from its very founding in 1931, was given by Walter Granville.

Also active since the very early days of the Council and an Honorary Member, Walter Granville is an especially worthy recipient of the ISCC Nickerson Service Award as he too has exemplified for half a century the type of effort and commitment for which this award was created. Walter served as an ISCC Counselor from 1948-50, a position later designated Director. Walter also served as a Director for 1954-56 and again from 1960-62. He was Vice President of the Council from 1956-58 and President from 1958-60. Anyone who has served as an Officer or Director or merely observed those positions from a distance knows that the preceding short sentences speak volumes about the time and dedication devoted to the Council.

Walter served as the Chairman of the ISCC Membership Committee for 25 years, from 1949-1974. In ISCC Newsletter No. 224 he published a three-page historical tabulation of the attendance of member-body organizations from 1931-1972, including the dates when each had joined. The table provides a comprehensive view of the breadth and interdisciplinary character of the ISCC, which had been carefully nurtured and maintained by Walter's work on the Membership Committee.

In the course of his professional career Walter was affiliated with the Interchemical Corporation, then with the Container Corporation of America, and was later active as an independent consultant. He has had a broad range of interests in all aspects of color including formulation, production of specific colors in paint or lacquer, spectrophotometric measurement of color, color charts, color-mixture, and color order systems, particularly the Ostwald System. He is well known as the co-producer of the "Color Harmony Manual," which is based on the Ostwald System, and the associated "Descriptive Color Names Dictionary."

These interests led him to active associations with the ASTM and the OSA, which in turn strengthened his bonds to the ISCC. While an individual member of the Council and an OSA delegate he was appointed to the ASTM delegation. M. Rea Paul, the founding Secretary of the ISCC was then Chairman of the ASTM delegation, and in 1946 Walter Granville was made Vice-Chairman. When Paul founded and then headed ASTM Committee E-12 on Appearance of Materials, Granville was made Chairman of the Optical Properties Subcommittee of the Paint Committee, and Harry Hammond served as Secretary.

The classic color texts all cite Granville's important contributions and collaborations with Dorothy Nickerson and Carl Foss on the colorimetric specification through spectrophotometric measurement of colors in the Munsell System and in the Color Harmony Manual. These interests led to his 1947 appointment as Chairman of the reconstituted ISCC Problem #7 Committee, "A Survey of Color Specifications." Walter also served on the Munsell Foundation Board of Trustees from 1965-1974.

Reports in the ISCC Newsletters give further examples of his wide-ranging concerns and contributions to the literature and to the color community. The September 1945 issue mentions an article co-authored by Granville in which color charts of apple leaves are provided to apple growers to determine the degree of utilization of nitrogen fertilizer. The March 1954 issue contains a Granville letter on color-chip permanence. An FSPT report in the July-August 1962 issue mentions a lecture given by Granville to the New England Society on "Attitudes and Trends in Color Usage." One wonders if this bears any relationship to a quote in a July 1954 issue from a Granville letter on the topic "Granville on Color and Jail Breaks."

At the 31st Annual Meeting Walter gave a paper on "Dynamic Metamerism" at the "Symposium on Lighting for Color." This was followed in the May and August 1963 issues with an historical essay on "Metamerism and Color Stability." At the 1985 Annual Meeting he presented "Color Harmony - What's That?", a view from a half century of experience.

Walter's ongoing interest in color harmony and the role of color in our daily lives led to his involvement with Problem Subcommittee 33, Human Response to Color. He co-chaired the committee from 1982-1984 and was the Chairman for 1986-1987. He published in the May/June Newsletter a long report on this complex topic outlining the many factors which affect the human response.

Walter has also contributed in a personal way to his friends, co-workers and the color community at large. In 1974 he presented the Macbeth Award to Midge Wilson. The Nov/Dec, 1986 Newsletter contains an obituary he wrote on his good friend and collaborator, Carl Foss. In 1973 he donated his personal color library of 320 titles, some rare or unique, many accompanied by charts, swatches, or chips, to the Cooper-Hewitt Museum.

Although he seems to have made several attempts to "retire" or reduce his activity, the Jan/Feb 1989 Newsletter shows that Walter Granville's enthusiasm and desire to contribute continue to prevail, as does his personal color library. That issue contains his review of the Bradley exhibit of sculpture at M.I.T as well as his review of the book "Round Buildings, Square Buildings, & Buildings That Wiggle Like a Fish." His spirited review is every bit as infectious and enticing as the title of the book. It also convinces one that not only are Walter's contributions towards the advancement of the Council and its aims and purposes outstanding and long term, they continue to this day.

*Paul Hoffenberg, selection committee chairman*

## GRANVILLE RESPONSE IN ACCEPTING THE NICKERSON SERVICE AWARD

Serving the Council has many benefits. To illustrate this I would like to tell you about an incident that occurred at the annual banquet many years ago, when our meetings were held at the Hotel Pennsylvania. Near the end of the dinner the head waiter called me aside to talk and insisted we leave the room. He took me into the serving kitchen and told me the banquet office had miscounted the number of desert cakes required; there was one extra and what should he do with it. Well - this is the kind of problem local arrangements committee chairpersons enjoy facing. I determined that the head table had received extra large portions of cake so I told him to serve the cake to the people at my table. This produced some raised eyebrows at neighboring tables, but the extra cake was devoured by us with glee.

Serving the Council has not been without other benefits. Most of what I know about color I have learned from other members. Receiving the Nickerson Service Award is a little like having another piece of cake; it's completely unexpected and quite unnecessary but is accepted with great appreciation.

*Walter Granville*

## BOARD OF DIRECTORS CHANGES

Certificates of Appreciation were presented to each of the directors whose terms were completed at this meeting. They are: Paula Alessi, Roland L. Connelly, Sr. and Mary Ellen Zuyus.

The newly elected directors who will serve from 1989 to 1992 were introduced. They are: Dr. Norman Burningham, Eastman Kodak Company, Richard W. Harold, Hunter Associates Laboratory, Inc., Evelyn Stephens, Fashion Institute of Technology.

## OFFICERS REPORTS

Each of the officers presented mercifully brief oral reports. The only written report I have received is that of the treasurer. In the belief that the details of the report would occupy more space than interest, I summarize by stating that the council is in good financial health after the modest increase in dues.

## INDIVIDUAL MEMBER GROUP ELECTS DELEGATES

Pursuant to the Individual Member Group (IMG) being recognized as a Member-Body, on Sunday April 9, during the ISCC Annual Meeting, the IMG of the ISCC held an organizational meeting. The following delegates were selected to represent the group:

Bonnie Bender  
George C. Brainard  
Jean Bourges  
Ellen C. Carter (voting member)  
Jeanette Chupack  
Carol B. Mitchell-Derov (voting member)  
Kim Vlaun  
Duane G. Wahl  
Don Woelfel (Chairman and voting member)  
Magenta Yglesias

Any individual member of the the ISCC is invited and encouraged to contact any of the delegates concerning any issue he would like to have brought before the ISCC Board. All of the delegate's addresses can be found in the membership directory. *Ellen Carter*

## FROM THE PRESIDENT

I am very pleased to announce that the new ISCC Constitution, By-Laws and Standing Rules have been approved by the voting delegates and the ISCC Board of Directors. This may not be the world's most exciting news to most ISCC members but it has great importance to the individuals on the By-Laws committee. Unfortunately the committee, led by Dr. Fred Billmeyer, Jr. and including Mr. Hugh Fairman, Dr. Allen Rodrigues, Mr. Nick Hale and myself, still needs to revise the guidelines for all the ISCC standing committees.

The most important change in these governing documents is that ISCC individual members are now grouped together as a

Member-Body, with the same privileges as the 27 national organizations that are currently ISCC Member-Bodies. This means that the individual members group (IMG) will be represented by ten delegates, three of whom vote. The first delegation was elected during the Annual Meeting in Chicago. Nick Hale supervised the election that chose Don Woelfel as chairman of the delegation. Details of this new delegation to the Council are given in a separate article.

The Council has long recognized the important contributions made by its individual members. Several years ago individual members who are also standing and project committee chairman were given a vote. The premise was that they represent the individual membership and are also active and knowledgeable about the Council; however, since these chairman are appointed by the president rather than elected, there was still no direct representation. The new arrangement changes this. It also means that individual members should make a point of attending the individual members meeting that will be held during every Annual Meeting to help elect delegates to represent their viewpoint.

In the regular turnover of standing committee chairmen, Mr. Harry Hammond III has replaced Dr. Paul Hoffenberg as chairman of the Nickerson Service Award Subcommittee and Ms. Sally Graves has assumed responsibility for the publicity committee since the press of other obligations forced Ms. Mary Ellen Zuyus to resign. Mary Ellen has made a large contribution to the Council as a director, as editor of the *ISCC News*, and as chairman of the publicity committee.

I want to take this opportunity on behalf of the Council to thank Miss. Joyce Davenport and Mrs. Anna Campbell Bliss, Co-Chairwomen, for arranging the successful April Annual Meeting. Anna created a very attractive booklet containing information about the Council and the meeting and arranged for some of the outstanding speakers. Joyce is a past president of the ISCC, has served as a director, as chairwoman of a project committee and of the member-body committee and, in addition, has co-chaired two previous annual meetings. It was gracious of her to agree to work on yet another annual meeting, making it possible to hold it in Chicago with the program co-sponsored by the Chicago Chapter of the American Institute of Architects. In fact, Mr. Frank E. Heitzman, who is president of the Chicago Chapter, not only assisted with the program but also presented a paper.

Much of the work necessary for a successful meeting fell on Joyce's shoulders since she lives in Chicago, and on the Arrangements Chairman, Mr. James Grady, and Mr. James Cave. Together they managed the myriad of details that go into a large meeting.

As extra touches, Joyce had worked out a nice walking tour for those who wanted to see nearby points of interest. She also made arrangements for the wine and cheese reception at the Mary Bell Galleries, even assisting in the serving. The gallery was hung with large, spectacular paintings by Mr. Wade Thompson. This was a special exhibition. Wade's paintings were already on exhibition, but additional paintings were hung especially for the occasion.



The special symposium on vision and color appearance arranged by Ms. Paula Alessi and Mr. Norman Burningham, Co-Chairmen of Interest Group II, drew a large audience. It was an unusual opportunity to hear the most recent developments in color vision modeling from individuals with international reputations in the field. We were honored to have Dr. Joel Pokorny, Dr. Yoshinobu Nayatani, Dr. Robert Hunt and Dr. Ming Ronnier Luo speak, all except Dr. Pokorny coming from overseas.

*Joy Turner Luke*

## 1989 ISCC GODLOVE AWARD

As was reported in the last issue, Prof. Dr. W. David Wright was selected as the 1989 recipient of the Godlove Award. It was a major disappointment not only to Prof. Wright but also to all in attendance that he was unable to come to Chicago as he had planned. President Luke read the following letter to those attending the banquet just before introducing Dr. Alan Robertson.

To My friends in the ISCC:

I am very sorry indeed that because of a domestic crisis, I have had to cancel my trip to Chicago. This means that I shall not be able to receive the Godlove Award in person, which I greatly regret. It also means that I shall miss meeting my many friends in the ISCC, but I am sure you will understand my predicament.

It is a great honour to be given the Godlove Award and I was very moved to receive a most gracious letter from Mrs. Godlove recently. This letter linked the Award in a very personal way to the memory of Dr. Godlove.

I count myself very fortunate to have been involved for so many years with such a fascinating subject as colour and its many ramifications and I have enjoyed it all. The most rewarding part of my colour activities has undoubtedly been the opportunity it gave me to introduce students at Imperial College to this particular field of research. I am very proud of the contributions which many of them have made to the subject and I hope I may be allowed to mention just two of them, namely Robert Hunt and Alan Robertson. Robert has already served as President of the AIC, while Alan is the current President. This international recognition of their eminence has given me great pleasure.

Let me just wish you a very successful Annual Meeting and a very enjoyable banquet. I shall be thinking about what I am missing.

David Wright

President Luke then introduced Dr. A. R. Robertson who read the following citation.

Madame President, Ladies and Gentlemen:

Tonight the Inter-Society Color Council pays tribute to Professor William David Wright, recipient of the 1989 Godlove Award for his many notable contributions to the subject of color. However I will be reading the citation with mixed

feelings. While it is a very great pleasure and privilege to honor the man who first introduced me to color science and whom I have known for 28 years, first as a teacher, then as a thesis supervisor and later as a friend, the occasion is tinged with regret because he is unable to be here in person to receive the Award. I am sure you will all join me in sending our very best regards and good wishes to David and to his wife Dorothy.

The Godlove Award was established in 1956 by Mrs. Margaret N. Godlove in memory of her husband, Dr. I. H. Godlove. It is presented to a member or former member of the ISCC for outstanding contributions to the field of color. The contribution may be direct, it may be in the active practical stimulation of the application of color, or it may be an outstanding dissemination of knowledge of color by writing or lecturing.

David Wright's work in color began in 1926 when, having received his Bachelor of Science degree in physics from Imperial College at the age of twenty, he received a grant from the Medical Research Council for research on color to derive new color-mixture data. As the first part of this work, he designed and built a visual colorimeter which he recently described, with typical modesty, as consisting of a glorious mixture of glass and brass and wood, to say nothing of strings and pulleys, and requiring constant readjustment and recalibration. He then used the colorimeter to measure the chromaticity coordinates of the spectrum for ten observers. For this work, he was awarded the degree of Doctor of Philosophy by the University of London.

Wright's results were later combined with those of Guild to form the CIE 1931 Standard Observer. This Standard Observer remains today, 58 years later, as the basis of most colorimetry, both scientific and industrial, throughout the world. It stands as a unique testimony to Wright's innovative optical talent and meticulous experimental technique.

From 1929 to 1931 Wright worked in the television industry in the United States and the United Kingdom. In 1931, he returned to Imperial College where he worked until his retirement from the Chair of Applied Optics in 1973. During these 42 years he conducted and directed research into many aspects of normal and defective color vision including the color-matching characteristics of anomalous observers, luminous efficiency functions for a variety of viewing conditions, foveal and extra-foveal color-matching, the discrimination of saturation, hue and other small color differences, and adaptation to white and coloured light under many different conditions.

In the late 1930s Wright built a new version of his colorimeter which he described as "more robust." That this was an apt description is amply illustrated by the fact that it is still in use today despite having been subjected to over 50 years of use and occasional abuse by a continuous flow of research students of whom I am proud to have been one. Many of these students are now well-known and expert color scientists in their own right, providing continuing evidence of another of David Wright's outstanding skills, that of an accomplished educator.

In his many research papers and reports, Wright has never been content merely with an exceptionally clear and lucid

account of the results of his research. He has always included stimulating speculations on their significance to our understanding of human color vision and on possible practical applications. This, perhaps, has been his greatest strength because, although his research has often been very fundamental, he could never be accused, as some scientists can, of working in an "ivory tower."

In addition to his color vision research, Wright has made many direct contributions in the application of color science to practical problems in color measurement and related fields, including the construction of a high-accuracy spectrophotometer and the supervision and encouragement of students in fields such as color rendering, surfacer texture, spectrophotometry and color standards. In fact, one of his five books, "The Measurement of Color," was devoted to these subjects and has become a standard and indispensable textbook for many practitioners.

Wright's interests extend beyond the mere scientific and he has been responsible for significant extensions and applications of scientific knowledge into the worlds of art and education, particularly by writing and lecturing. In the sixteen years since his "retirement," David Wright has continued to be active. He designed and supervised the building of a spectrophotometer to measure the color of works of art without damaging them by mechanical contact or excessive optical irradiation. He has given invited lectures throughout the world and has held teaching appointments at the University of Calcutta, The University of Waterloo, the City University of London, and the Rochester Institute of Technology.

David Wright's impressive list of accomplishments is backed by a friendly and engaging personality. Throughout his career, he has maintained a modest and pleasantly self-deprecating manner. For a man who has so much to boast about he rarely, if ever, submits to the temptation to do so. When he wrote to me to say that he had suggested to the ISCC that I give this citation, he said, "It is not really fair of me to land this chore on you, but you can make it very, very short! Alternatively you can always turn the job down on the grounds that you know too much about me to justify the award!" He could not have been more wrong!

In summary, David Wright's achievements qualify him in a unique and complete way for the Godlove Award. His contributions to color have been in increasing our knowledge of color by research, in active practical stimulation of the application of color, and in outstanding dissemination of color by writing and lecturing. In short, ladies and gentlemen, William David Wright's name is virtually synonymous with color science. *A. R. Robertson*

## MEMBER BODY MCCA TERMINATED

Some ISCC members have asked: "What happened to the Manufacturers' Council on Color and Appearance (MCCA)?" The answer is that it ceased operations in March 1988 because its only activity was the occasional organization of a color conference, and this did not require an association. Charles Leete still operates Collaborative Testing Services, Inc. (CTS).

He plans to join ISCC as an Individual Member. Meanwhile, CTS continues to run a Collaborative Color Testing Program as well as a number of others. If you would like more information write or call CTS, P.O. Box 1049, Herndon, VA 22070, (703) 481-1125.

*Harry K. Hammond III* (Ed. Note This communication from Harry K. Hammond, III was dated *Feb. 3, 1989* and should have been included in the Mar.-Apr. Issue)

## IN MEMORY OF OUR MANY ISCC FRIENDS WHO HAVE PASSED AWAY IN THE LAST 2 YEARS

### COLOR MEMORIES

by Louis A. Graham

The most variegated color is language.

The brightest spectrum of color is the diversity of the human race.

The brightest color is heaven,

The warmest color is love,

And the truest color is light itself.

Also by Louis A. Graham, a story.

### THAT'S THE COLOR I WANT!!

The customer wanted EVERYCOLOR for the next season and he needed *Quick Response*. The designer selected SOMECOLOR to start with. The dyer was convinced that ANYCOLOR under the sun (or even cool white or tungsten) would be O.K. Management was ready to put SOMECOLOR or ANYCOLOR into production to stay on schedule but not EVERYCOLOR. In the ensuing battle it became obvious that with modern color science ANYCOLOR could be matched and that SOMECOLOR should certainly have the colorfastness necessary as well as a good price. However, all agreed that EVERYCOLOR could not be made in the time available. Some compromise was vital. NOCOLOR was finally accepted by all those involved. And so NOCOLOR was put into production, *just-in-time* to miss the market.

## MEMBER BODY LIAISON:

Lou Graham expresses his appreciation for the way the Member Body Delegations have responded to his Member Body liaison requests. Once again it is time for all the Member Bodies of ISCC to review their delegation lists and send all corrections or other changes to Lou Graham, 1207 Colonial Avenue, Greensboro, NC 27408. *Lou Graham*

The editor also expresses appreciation to those Member Bodies that have supplied news of activities of their organizations. We hope to hear from all of you throughout the year.

## NEWS FROM MEMBER-BODIES

### American Chemical Society (ACS)

After nearly 39 years service to the American Chemical Society, Rodney N. Hader retired as ACS secretary and deputy executive director at the end of 1988. He joined the ACS publications program in 1950, and rose to be director of publications before being appointed secretary in 1970.

The ACS Board of Directors has created a new service award for senior ACS administrators "upon or after retirement...for outstanding service to the society over a number of years." Mr. Hader is the first recipient of the award, which consists of a medal and a substantial cash honorarium. It will be presented to Hader at the April 10 ACS meeting in Dallas.

Justin W. Collat has been elected secretary of the ACS by its Board of Directors. He joined the society staff in 1966 in its grants and awards program, and was more recently responsible for the society's membership programs. His new position makes him the liaison officer between the ACS and the ISCC. We wish him success in the position of ACS secretary.

### Audiocassette/Workbook Program Offered by ACS

A comprehensive program written by Eugene Allen and published by ACS offers the opportunity to develop a good overall knowledge of how color is measured and formulated. The user should gain a valuable understanding of the visual attributes of all colors as well as the various kinds of standard light sources by which colors are measured.

Unique to this course is an experiment kit containing several sets of colored chips included with the audiocassette tapes and workbook. This kit helps to fully explain the principles of color technology and serves as a valuable reference for future use. In addition, exercises and problems conclude each section of the workbook, along with detailed discussions of the solutions to the problems.

For more information or to place an order Call Toll Free (US only) 1-800-227-5558 or write ACS Distribution Office, 1155 Sixteenth St., NW, Washington, DC 20036.

### Color Association of the United States (CAUS)

The following items, which may be of interest to the ISCC membership, were taken from the February 9, 1989 issue of the CAUS NEWSLETTER:

The appointment of Annamarie K. Daane and Loretta Riley as application specialists for the Graphic Arts and Photographic Products Group of Macbeth, a division of Kollmorgen, has been announced by the company. They will provide technical support for Macbeth's dealer organization including responsibilities for product seminars, dealer training and demonstration for customers.

The 1988 Intl. Packaging Congress, held at the Parc des Expositions in Paris on Dec. 6-8 highlighted sessions on packaging of foodstuffs, beverages and health and beauty products, along with one on color and communication, chaired

by Michel Indergand, V. P. of "Center Francais de la Couleur" (CFC). The U.S. was represented by Primo Angeli who spoke on color and packaging in the U.S. Shigenobu Kobayashi, Pres. of Nippon Color & Design Institute, spoke on the same subject as it relates to Japan. Several European specialists presented views on color as it influences consumer reaction to packages and products.

### Detroit Colour Council Report For The 1988-89 Program Year

The DCC had an especially fine program year, continuing the practice of doing four dinner program meetings. One of the most renowned professionals in the color business, Ralph Stanziola, was the September, 1988 speaker. Now a successful consultant, Ralph shared his experience with the problems in industry and expressed what he feels are the most pressing needs.

Past ISCC President Allan Rodrigues was the November speaker and described elements of a successful instrumental color matching program in relation to human observer vision. Some outstanding visual aids were especially helpful in describing color phenomena.

An important meeting in March, '89 featured an update of usage of SAE J-1545 by Janet Casciero of Hunter Associates Laboratory. J-1545 is a recommended practice for determining color difference of automotive parts and was developed by a committee coordinated by the Detroit Colour Council.

The DCC has arranged the 11th in a series of annual panel conferences on various color-related topics. The May 10, 1989 conference targets the automotive refinish industry. Panel participants are from DuPont, PPG, BASF and Sherwin Williams.

The DCC was especially pleased to announce that the Fall, '89 speaker will be Carlton Wagner, director of the Wagner Institute for Color Research. The September 28 program will address human response to color.

The DCC initiated a 2-credit course, COLOR TECHNOLOGY, at Eastern Michigan University (EMU). An overflow class experienced hands-on projects in visual color exercises, color measurement problems, color design issues and color matching through pigment mixing in the EMU Coatings Laboratory. EMU has announced expansion to a 3-credit course in the Fall, 1989 term. Instructors will be Joseph Koreck and William Longley.

DCC contributors continue to staff a course in COLOR MARKETING at Center for Creative Studies in Detroit. Guest lecturers cover a wide range of color design issues and introduce career possibilities to Industrial Design students. The course is directed by William House each Fall and Spring term.

Officers for 1989 are: President, Steven Daniel, 3M Automotive; Vice-President, Joseph Koreck, Morton Thiokol; Secretary, Ella Brennan Cotter, BASF; Treasurer, Brian Stott, Read Plastics. *William Longley, Del. Chair.*

### Symposium to be Sponsored by ISCC and FSCT

The ISCC and the Federation of Societies for Coatings Technology will be sponsoring a Symposium on Color and Appearance Instrumentation (SCAI Conference) in Cleveland in 1990 following the ISCC Annual Meeting.

### Society for Information Display (SID)

#### *1988 Report of the Society for Information Display*

SID promotes a variety of professional activities in the field of information display by organizing seminars, symposia, and exhibitions as well as honoring individuals who have made outstanding contributions and noteworthy achievements.

The 1988 SID International Symposium, Seminar, and Exhibition was held May 23-27 at the Disneyland Hotel, Anaheim, California. There were 951 attendees at the Symposium and 526 at the special Seminar series. The 14 featured seminars presented a mixture of technology and topical reviews with state-of-the-art updates of recent advances in information display. At the Exhibiton 130 booths featured the latest in information display products and technologies.

The Society acknowledges the contributions and achievements of its members through a variety of awards. This year the Johann Gutenberg Prize, recognizing advancement in the field of hard copy/print technology, was awarded to C. Helmuth Hertz, Lund Institute of Technology, for his fundamental contributions to ink-jet printing technology, especially for graphic image printing. Also, the Karl Ferdinand Braun Prize, for outstanding contributions in the field of display technology, was awarded to Toshio Inoguchi, Sharp Corporation, for his pioneering work on stable high-brightness thin film electroluminescent displays. A number of other awards recognized both technological and Society-related achievements. In October 1988, SID Co-sponsored the 8th International Display Research Conference with the IEEE. It was held at the Hyatt Islandia, San Diego. The purpose of the conference is to promote activities related to research and early development in the display field. The annual conference location is rotated among the European countries, Japan, and the United States. The 1989 IDRC will be held in Kyoto, Japan, and will be co-sponsored by SID and the Japan Institute of Television Engineers.

Larry Tannas was elected President of SID for a two year term, succeeding John van Raalte. As president, Tannas will continue efforts to enhance the vitality of the organization. He will endeavor to strengthen regional SID Chapters through greater activity, including sponsorship of regional information display activities. An Eastern Display Workshop was sponsored by the Delaware Valley (Philadelphia region) Chapter in January 1989. The national office of SID will try to increase communication with members by using informational mailings and publishing a new membership directory. Interaction with other societies is being emphasized to promote information exchange and cooperation. *Joanne Taylor*

### Technical Association of the Pulp and Paper Industry (TAPPI)

The 1989 TAPPI Process and Product Quality Division Meeting will be held in New Orleans, Louisiana, October 1-4. The Trade Fair is scheduled to run concurrently at the same location October 1-2. There will be seven sessions: 1) "Customer Quality Requirements," chaired by Barbara Vaudreuil; 2) Panel Session: "Management of Quality Systems, Methods, and Procedures," chaired by Lucile Hahn; 3) "Product Quality Modeling," with James D. Rushton at the chair; 4) "New Technology for Quality Measurements," Thomas Friberg, chairman; 5) "Indicators of Offset Print Quality;" 6) "Quality Improvement Techniques," chaired by William Rogers; and 7) The final session chaired by Lee Hetenhouser will be "Liability in the Paper Industry" - a simulated courtroom trial, giving a flavor of legal situations encountered today. For more information, contact the Meetings Department at TAPPI headquarters at Technology Park/ Atlanta, P. O. Box 105113, Atlanta, GA 30348, or call (404) 446-1400, ext. 245. For information about the trade fair, contact the TAPPI Exhibits Department, Ext. 225.

### NEWS FROM OTHER ORGANIZATIONS

#### From Color Research and Application:

Ellen Carter has accepted the position of editor for *Color Research and Application* and will be working with Rolf Kuehni to assume responsibility for the journal by year end.

#### Gardner Laboratory Purchased by West Germany Based Company

The purchase of the color and appearance product line (formerly known as Gardner Laboratory) of the Instrument Division of Pacific Scientific Co. was announced by the Wesel, West Germany Headquarters of BYK-Chemie GmbH, whose wholly owned Geretsried, West Germany-based subsidiary BYK-Labotron GmbH, actually facilitated the acquisition. The result will be a new company named BYK-GARDNER, Inc., as incorporated in the state of Delaware with facilities in Silver Spring, MD. BYK-Labotron is a manufacturer of color and appearance test instruments similar to those produced by Gardner Laboratory. The most recent product development by Gardner is a computerized color spectrophotometer designed for use by retail paint stores where custom color matching of paint to household items such as wall covering, carpeting, etc. is accomplished.

Until such time that both organizations become fully integrated, all USA customers previously being served by Gardner Laboratory and BYK-Labotron GmbH (via BYK-Chemie USA) should direct their inquiries and/or orders to:

BYK-LABOTRON, care of BYK-Chemie, USA, 524 South Cherry St., Wallingford, CT. 06492, Tel.(203)265-2086, FAX (203)284-9158 or Gardner Laboratory, 2435 Linden Lane, Silver Spring, MD 20910. Tel (301)495-7150, FAX (301)585-4067.

### Former GATF Staff Director Establishes New Firm

A. J. Geis Associates has been formed by a former GATF staff director to offer consulting services to graphic communications firms. The firm is headed by A. John Geis, who has resigned after 12 years as technical services director for the Graphic Arts Technical Foundation. Mr. Geis is a registered Professional Engineer and is an elected Fellow of the American Institute of Industrial Engineers. Inquiries should be directed to Mr. Geis at 124 Ambleside Drive, Pittsburgh, PA 15237

Tel: (412)367-2443

Mr. Geis will continue to conduct the "Printing Plant Layout and Facility Design" workshop for GATF. The program is intended for printers who are planning a new building, building additions to an existing plant, or considering a facility move.

*Ed. Note: Part of the following report was omitted in the March/April Issue of the News. Therefore, it is being re-printed in its entirety in this issue.*

### 1988 Annual Report of the RIT, Hunter Professor and the Munsell Laboratory

The 1988 Annual Report of the Rochester Institute of Technology Richard S. Hunter Professor and the Munsell Color Science Laboratory was recently published. Some of its contents will be of interest to many ISCC readers, particularly the long term objectives in optical radiation measurements and appearance measurements.

The report was submitted by Roy Berns, the Hunter Professor and director of the Munsell Laboratory. In his overview, Berns noted that the Professorship and the Laboratory were both established just five years ago, thus a restatement of the goals and objectives of both endowed programs was in order. He stated that his primary objective continues to be the development of a strong educational program in color, including industrial education as well as academics. The theory of color measurement, colorant formulation, colorimetry applied to statistical process control, and oral and written communication skills are stressed in particular.

The report also states that another objective is to maintain the Laboratory's capacity to provide calibration and measurement services in optical radiation measurements traceable to the National Institute of Standards and Technology (formerly NBS) which do not exceed the total uncertainty of NIST. Research and development has been initiated in four areas: (1) Primary transfer capabilities in visible reflectance spectroscopy for 45/0 geometry, (2) Same for integrating sphere geometry, (3) Goniospectrophotometric measurements for visible reflectance and transmittance, and (4) Spectroradiometric and colorimetric calibration of self-luminous displays. Appearance measurement includes many of the unsolved problems in color science, such as instrument correlation to visual assessment for materials with different surface attributes including specular gloss and distinctness of image, chromatic adaptation for complex scenes,

absolute color appearance metrics, and soft copy to hard copy reproduction. Three pieces of apparatus have been designed and implemented to study appearance. The first is a colorimetrically calibrated full-color image processor. The second is a laser primary visual colorimeter capable of measuring color matching functions with normal eye movement and with complex scene surrounds. The third is a two dimensional goniospectrophotometer.

Berns concluded the report by indicating that his accomplishments as Richard S. Hunter Professor in Color Science, Appearance, and Technology would not have been possible without the support of his students, the RIT and color science communities, the Munsell Color Science Advisory Board, and particularly Mr. Richard Hunter and his wife Elizabeth. Each year since the inception of the Professorship, Mrs. Hunter has generously provided additional support for the activities of the Hunter Professor.

Anyone interested in more details can obtain a copy of the 22 page report by contacting Ms Barbara Capierso, Munsell Color Science Laboratory, RIT, P. O. Box 9787, Rochester, NY 14623-0887, (716) 475-5842. *Harry K. Hammond III*

### AIC Honors Indow

The 6th Quadrennial Meeting of the Association Internationale de la Couleur (AIC) was held in Buenos Aires, Argentina, March 12-17, 1989. This Association was formed in the 1960's due in large measure to the efforts of the late Deane B. Judd (1900-1972), a color expert well known in the U.S. and abroad for his work with people and organizations where description, specification or measurement of color is important. His book, "Color in Business, Science and Industry," is a classic work that is still consulted by every serious worker in the field. Three editions were published by Wiley at about 10-year intervals, the most recent in 1972, just before he died.

The Deane B. Judd-AIC Award, funded by his wife, Betty Judd, was instituted in 1975, to honor his memory. The award is made biennially to recognize and honor persons who have performed work of outstanding merit in color science. Previous recipients have been Miss Dorothy Nickerson, Prof. Dr. William David Wright, Dr. Gunter Wyszecki, Prof. Dr. Manfred Richter, Dr. David Lewis MacAdam, Prof. Dorothea Jameson, Dr. Leo Hurvich, and Professor Dr. Robert W. G. Hunt.

The 1989 award was conferred on Prof. Dr. Tarow Indow in recognition of his extensive contributions to the science and technology of color. Of particular note is his work on the method of multidimensional scaling and examination of the global structure of the Munsell color space. Dr. Indow's professional career has extended over 40 years. He was Professor of Psychology at Keio University, Tokyo, Japan, and since 1977 at the University of California at Irvine. Indow was President of AIC from 1973 to 1977. His contributions to the science of color have earned him admiration and gratitude of colleagues and associates throughout the international color community.



The award consists of a gold medal with a portrait of Deane B. Judd on one side and on the other the inscription "To honour Tarow Indow 1989 for important work on color science." It was presented on March 13.

*Harry K. Hammond III*

### Reflections on AIC Color '89 in Buenos Aires

Strictly from a technical person's prejudiced viewpoint there were, as in any broad color topic conference, bright spots to the program and some less bright ones. For those with interest in color formulation, Professor Simon's status report revealed that little new technical development had occurred in the past four years—only some rearrangements to the practice of old technology. On the other hand much activity, interest, and progress was reported on studying the variables affecting the perception of colors—of particular note were the contributions from R.W.G. Hunt of Great Britain and Klaus Witt from the Federal Republic of Germany. Considering the active discussions on this subject and the interest pro and con on CMC modifications to the CIELab equations, it would not be surprising to soon see a consensus on an improved color difference equation. Less agreement, but no less discussion, ensued on the topic of color order systems—with each of several speakers convinced their approach was best. In an AIC meeting where nationalism was relatively subdued, a little showed on the edges of this subject.

The artists and designers had their day as two invited lectures and two oral sessions were devoted to their interests. To those of us accustomed to seeking distinct order to color, we find their more random approach somewhat mysterious, but their slides are attractive and, although we can't always admit it, perhaps there is system in beauty. Nancy Howard's invited lecture and part of an oral session was devoted to color education which is a subject that needs more attention—not just as an academic pursuit but for those practicing color in industry as well.

It's worthy to mention the opportunities for making and renewing acquaintances with those active in color. The formal and informal social encounters were both informative, enjoyable and of value equal to the formal presentations. Last, but certainly not least—R. D. Lozano and his family and his organizing committee are deserving of much praise for all their hard work and for making everyone feel welcome in their country.

*Edward Cairns*

### Parametric Effects on Color-Difference Perception

At the AIC meeting in Buenos Argentina, March 14, 1989, Klaus Witt reported on *Parametric effects on threshold of color-difference perception in painted specimens*. Within the CIE color regions proposed for study of color-difference evaluation, several aspects of experimental planning, data analysis and parametric effects have been studied by using painted specimens. A probability function for defining threshold of color difference perception was found to be promising if a

parameter for erroneous difference judgements at zero colorimetric difference was introduced. Three different functions of color difference were studied, namely  $x,y,Y$ -ellipsoid,  $L^*a^*b^*$  ellipsoid and  $L^*a^*a^*$ -city block. Both of the ellipsoids had nearly identical correlation coefficients, city-block slightly lower.

Parametric effects during this analysis were: (1) observer variability, (2) lightness of two gray surrounds, (3) separation gap between specimens of 0.5 degree.

Results showed that there was: (1) an approximate equivalence of ellipsoidal main axes with physiologically meaningful directions, (2) no significant surround effect unless the test field color was rather dark, (3) an increase in threshold by a factor of 1.5 to 2.3 depending on color, when colored specimens were separated. The effect on hue was less than the effect on lightness or saturation. Specimen separation also increased observer variability.

Readers may be interested to know that Witt will be presenting additional results on his investigations at the ISCC Conference in Williamsburg, Virginia, November 29-December 1, 1989.

For background information see Klaus Witt, *Three-Dimensional Threshold of Color-Difference Perceptibility in Painted Samples: Variability of Observers in Four CIE Color Regions*, *COLOR Research and Application* v 12, n 3, June 1987, pp 128-134. Reported by Harry K. Hammond, III

### Standards Australia

A standard for colors to be used at major disaster sites is being prepared by Standards Australia. The aim of the standard is to enable rapid, accurate identification of a specific service at the emergency site to simplify coordination of the emergency services. For example, a doctor or medical team could be identified by a color coded tabard (vest). The Standards Australia committee, which includes representatives from state emergency services, police departments, ambulance services, and fire brigades from around Australia, was formed to continue the work started by the Natural Disasters Organization. Taken from *ASTM News*, March 1989 pg. 10.

### The Devil and Color

What color is the devil? Historically, he went from black and brown to blue and red. Textile and dye researchers tell us that, at a time when red dominated the European market (XII Century), indigo blue suddenly became available. Fearing the competition, vendors of red colorants set out to discredit the upstart color by commissioning painters and stain-glass artists to paint their devils in blue. In Northern Italy, in the Rhine Valley, everywhere in Europe, a fierce battle took place between the red and the blue. The cathedral windows of Strasbourg, in France, today still show blue devils. Only centuries later did the devil become red again.

*Taken from the CAUS Newsletter 1/10/88.*

## The Colour Group

The Colour Group has announced their program for the 1989/1990 period. The following items may be of interest to members of the ISCC who are in England on the appropriate dates:

Date/Time	Location	Topic
May 24, 1989 2:00Pm	National Gallery	<i>Annual General Meeting Retiring Chairman's Address "Colour Vision Tests Involve You"</i>
Oct. 4, 1989	City University	<i>Bartleson Memorial Symposium</i>
Nov. 8, 1989	City University	<i>"Problem Colours"</i>
Dec. 6, 1989	to be announced	<i>Henderson Memorial Meeting</i>
Jan. 10, 1990	to be announced	<i>Vision Meeting</i>
Feb. 7, 1990	National Gallery	<i>"Materials and Techniques of Turner"</i>
Mar. 7, 1990	to be announced	<i>"Reproduction of Texture"</i>
Apr. 4, 1990	to be announced	<i>student meeting</i>
May 16, 1990	to be announced	<i>Annual General Meeting</i>

The Colour Group held its 223rd meeting on January 4, 1989. Six papers were presented. Carol Wood of the Imaging Science and Technology Research Group, The Polytechnic of Central London presented a paper, "Minimum perceptible differences in the colour reproduction of photographic prints" in which the experimental results of 12 observers were compared with MacAdam type ellipses, CIELAB unit ellipses and ellipses derived from the CMC(1:c) colour difference formula. In the second paper, entitled "Hue shifts in unrelated and related colours" and given by R. W. G. Hunt, the dependence of hue on luminance (the Bezold-Brucke effect) is analysed in terms of changes of hue angle instead of changes in wavelength so as to assess their visual importance. J. D. Moreland, J. Pokorny, and V. C. Smith of the Visual Science Unit, University of Bradford and Eye Research Laboratories, University of Chicago teamed together for the third paper, "Additivity in heterochromatic modulation photometry". An investigation of the role that chromatic information plays in visual form perception was described in the paper "Spatial Discriminations Based on Chromatic Information" by M. A. Webster, K. K. De Valois, and E. Switkes. Another paper was "The Curious Behavior of Hue Discrimination at Short Wavelengths" by J. D. Mollon, C. R. Cavonius, and S. Astell. The final paper given by J. K. Bowmaker was entitled "The Spectral Location of Cone Visual Pigments in Primates".

*Taken from Colour Group Newsletter*

## C. James Bartleson Award

To recognize work of international significance in the field of colour science, a C. James Bartleson Award has been established. Funds for a Trust, to be known as 'The C. James Bartleson Award Trust' have been provided by Mrs. C. J. Bartleson to found this award in memory of her late husband Dr. C. James Bartleson. The award is administered by five Trustees; two of these are appointed by the Department of Optometry and Visual Science of the City University, London, England, at which Dr. Bartleson received his Doctorate of Philosophy; two are appointed by The Colour Group (Great Britain), of which there was a Committee Member and a Newton Lecturer and Medallist; and one is appointed by Mrs. C. J. Bartleson.

The award consists of a monetary prize of one thousand pounds sterling and a medal. The medal shows a portrait of Dr. Bartleson on one side, the other side being inscribed with the words 'Presented to [recipient's name] for significant work in Colour Science [year of presentation]'. The award will normally be presented after a special lecture delivered by the recipient to mark the occasion. It is expected that awards will be made at approximately two year intervals, and that a total of about five awards will be made.

The award has been established to recognize significant work in colour science, and to encourage excellence in this field. Recipients of the award will be selected by the Trustees. In selecting the recipients, the Trustees will give priority to persons who are young, and who have shown outstanding ability to produce well-written papers.

The first award will be made at a symposium on Colour Appearance, to be held at The City University, London, on Wednesday October 4th, 1989. Tributes to the late Dr. Bartleson, the lecture by the recipient, and the presentation of the medal, will take place in the morning; invited papers on colour appearance will be delivered in the afternoon; and a dinner will be held in the evening. The symposium is being organized by the Colour Group (Great Britain) and further details, and an application form for registration, will be available from the secretary of the Group: Dr. Julie Taylor, National Physical Laboratory, Teddington, Middlesex, TW11 0LW, England, (Telephone: 01-943-6539. *Robert W. G. Hunt*

## International Marblers' Gathering

Marbling is the ancient art of floating colors on an elastic surface and then applying the beautiful, complex and unique pattern to paper or other materials.

On August 4, 5 and 6 of this year, the first International Marblers' Gathering will be held at St. John's College, in the picturesque hills overlooking Santa Fe, New Mexico. This marble fair and conference will attract some of the world's most accomplished marbling artists and knowledgeable speakers involved in this secretive art form.

Although most familiar to fine bookbinders, marbling has grown to encompass a wide variety of surface design applications. At this conference the art of marbleizing will be exam-

ined from its obscure beginnings, through current technology, to its relationship to futuristic computer-generated fractiles.

In association with the gathering, there will be a marble arts fair where marbled products can be purchased. There will also be a juried International Marblers' Exhibit hosted by the Governor of New Mexico, Garrey Carruthers. On the final day of the gathering, an attempt will be made to establish a new Guinness Book world record for the creation of the largest piece of hand-done marbling. *John Coventry, Santa Fe, NM*

## CALENDAR

Please send information on Member Body and other organization meetings involving color with dates, places, and information source to:

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### 1989

#### OSA TOPICAL MEETING ON IMAGE UNDERSTANDING AND MACHINE VISION, June 12-14

North Falmouth, Cape Cod, Massachusetts. Information: Optical Society of America, 1816 Jefferson Place, N.W., Washington, D.C. 20036. (202) 223-0920.

#### ASTM COMMITTEE D-1 ON PAINT, June 25-2

St. Louis, Missouri. Information: David Bradley, (215) 299-5504.

#### OSA TOPICAL MEETING ON APPLIED VISION, July 12-14

San Francisco, California. Information: Optical Society of America, 1816 Jefferson Place, N.W., Washington, D.C. 20036. (202) 223-0920.

#### WORK WITH DISPLAY UNITS, Sept. 11-14

Second International Scientific Conference, Queen Elizabeth Hotel, Montreal, Canada. Information: Diane Berthelette, (514) 288-1551.

#### ROYAL PHOTOGRAPHIC SOCIETY, Sept. 18-2

Symposium on the Quantification of Images, Clare College, University of Cambridge. Information: Dr. M. R. Pointer, Kodak Ltd, Harrow Middlesex, HA1 4TY England, Tel. 01 427 4380.

#### COLOR MARKETING GROUP FALL MEETING, Sep. 23-27

The Phoenician, Scottsdale, Arizona. Information: Nancy Burns, (703) 528-7666.

#### DCC - HUMAN RESPONSE TO COLOR, Sep. 2

Detroit Colour Council, Carlton Wagner, Director, Wagner Institute for Color Research. Information: William Longley, (313) 337-5234.

#### CIE INTERIM MEETING, Oct. 2-

Information: Dr. J. D. Schanda, Central Bureau, A-1030 Vienna, Kegelgasse 27 Austria, or Dr. Jack Hsia, (301) 975-2342.

#### TAPPI OPTICAL PROPERTIES COMMITTEE, Oct. 4

New Orleans Marriott, New Orleans, Louisiana. Information: S. J. Popson, (812) 948-2884.

#### SYMPOSIUM ON DAYLIGHT AND SOLAR RADIATION MEASUREMENT, OCT. 9-11

Technische Universitat Berlin (West), Germany. Information: Herm Prof. Dr.

H. Kaase, Institut fur Lichttechnik der Technischen Universitat Berlin, Einsteinufer 19, D-1000 Berlin 10 GERMANY. (030) 314 224 01.

#### OPTICS 89, Oct. 15-20

##### Optical Society of America Annual Meeting

Orlando, Florida. Information: OSA, 1816 Jefferson Place, N.W., Washington, D.C. 20036, (202) 223-0920.

#### USNC/CIE ANNUAL MEETING, Oct. 29-31 U. S. National

Committee of the CIE, Hyatt, San Jose, 1740 N.1st St., San Jose, California. Information: Jack Hsia, (301) 975-2342.

#### FSCT, Nov. 8-10 Federation of Societies for Coating Technology 67th Annual

Meeting and 54th Paint Industries' Show, The Rivergate, New Orleans, Louisiana. Information: (215) 545-1506.

#### AATCC NAT'L COMMITTEE MEETING, Nov. 14-16

The Doral Inn, New York, New York. Information: Jerry Tew, (919) 549-8141.

#### ISCC WILLIAMSBURG CONFERENCE, Nov. 28-Dec. 1

"Color Discrimination Psychophysics", Colonial Williamsburg, Virginia. Information: Dr. Roy Berns, (716) 475-2784.

#### ISO/TC 187 COLOR ORDER SYSTEMS, Dec. 4-6

Baltimore, Maryland. Information: Nick Hale, (301) 472-4850.

### 1990

#### ASTM E-12 ON APPEARANCE, Jan. 21-24

Embassy Suites Hotel, Ft. Lauderdale South, Florida. Information: Sharon Kauffman, (215) 299-5599.

#### ASTM COMMITTEE D-1 ON PAINT, Jan 21-25

Embassy Suites Hotel, Ft. Lauderdale South, Florida. Information: David Bradley, (215) 299-5504.

#### ISCC ANNUAL MEETING/ SCAI CONFERENCE, Apr. 22-26

Airport Marriott, Cleveland, Ohio. Information: James Grady (313) 855-2353, Jaqui Welker (216) 671-0050 ext. 2404, Romesh Kumar, (401) 823-2161.

#### COLOR MARKETING GROUP SPRING MEETING,

Apr. 29-May 1

Royal York Hotel, Toronto, Ontario, Canada. Information: Nancy Burns, (703) 528-7666.

#### ASTM COMMITTEE D-1 ON PAINT, Jun. 17-20

San Francisco, California. Information: David Bradley, (215) 299-5504.

#### COLOR MARKETING GROUP FALL MEETING, Sep. 23-25

Hyatt Regency San Antonio, San Antonio, Texas. Information: Nancy Burns, (703) 528-7666.

**AIC INTERIM MEETING, COLOR MEASUREMENT,**  
last week of September  
Berlin, Federal Republic of Germany. Information: Heinz Terstiege,  
BAM Unter den Eichen 87, 1000 Berlin 45, FRG.

**OSA ANNUAL MEETING '90, Nov. 4-9**  
Boston, Massachusetts. Information: Optical Society of America, 1816  
Jefferson Place, N.W., Washington, D.C. 20036.  
(202) 223-0920.

## 1991

**AIC INTERIM SYMPOSIUM, COLOUR & LIGHT, Jun. 26-28**  
Sidney Australia. Information: The Colour Society of Australia,  
P.O. Box 63, Concord West, N.S.W., 2138, Australia.

**CIE 22ND SESSION, Jul. 1-12**  
International Commission On Illumination, Melbourne, Australia.  
Information: Dr. J. D. Schanda, Central Bureau, A-1030 Vienna,  
Kegelgasse 27 Austria, or Dr. Jack Hsia, (301) 975-2342.

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American Society of Interior Designers (ASID)  
American Society for Photogrammetry and Remote Sensing (ASPRS)  
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