

Inter-Society Color Council *News*



SYNOPSIS OF THE BOARD OF DIRECTORS MEETING

The third meeting of the ISCC Board of Directors in 1979 took place in Rochester on September 23, 1979. The applications for 20 new IMG members were approved at the meeting. The Nominating Committee presented to the Board a slate of candidates for officers and board members. This year the voting delegates will have a choice in the election since there will be two candidates for each office on the ballot. The only exception is the Secretary's office since no second candidate could be found at this time for that office.

The candidates for President-elect are Louis A. Graham and Bonnie K. Swenholt.

The remaining candidates are: For Secretary — F. W. Billmeyer, Jr.; For Treasurer — E. T. Connor and S. L. Davidson; For Directors — L. E. DeMarsh, J. T. Luke, R. T. Marcus, T. Pamer, A. B. J. Rodrigues, W. A. Thornton.

The Macbeth Award Committee presented the selection of Professor W. D. Wright for the 1980 award.

The programs for the 1980 Williamsburg Helson Memorial Symposium on Chromatic Adaptation and for the 1980 Annual Meeting were discussed in detail and finalized.

The officers gave short reports on their activities. The President, in his report, expressed his disappointment that so many

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reports from committee chairmen are missing from the Annual Report issue in the Newsletter. These omissions reflect the weakness of the Council and also create bad publicity in the eyes of the membership when they see in so many pages "No Report Received." May I appeal to you, my colleagues, to take upon us the responsibility to do better in the future. It is for these kinds of concerns that this office has instituted the position of Director/Observer.

A special "Golden Anniversary Committee" was appointed with the task to prepare suitable programs to commemorate the memorable occasion, i.e. 50th anniversary of the founding of ISCC. The committee is chaired by Dr. W. Schaeffer.

Ms. T. Commerford was appointed as a committee of one to work with the Secretary.

The newly formed Publicity Committee, chaired by Ms. J. Davenport, was approved and the scope of activity of the committee was defined.

Also approved in concept was the suggestion to form a Service Award Committee whose task will be to suggest methods for awarding members for long and dedicated services to ISCC.

Franc Grum



Graham



Swenholt



Connor



Luke



Thornton



Pamer



Rodrigues



Marcus



DeMarsh

LOUIS A. GRAHAM, PRESIDENT-ELECT

Louis Graham is Manager of the Color and Dyeing Laboratories and the Analytical Chemistry Laboratory of Burlington Industries Corporate Research and Development. Mr. Graham joined Burlington Industries at their Corporate Research Center in 1967. In 1968 the Color Laboratory was organized and in 1970 the Dye Application Laboratory responsibilities

were also assigned to Mr. Graham. In recent years these laboratories have been concerned with developments in dyeing and printing of all synthetic and natural fibers, resulting in developments for solvent dyeing, vacuum dyeing, pigment dyeing and reactive dyeing. The Color Laboratory has been active in the development of computer programming for color technology and the more efficient use of instrumentation for color measurement throughout Burlington Industries.

From 1950 through 1967, Mr. Graham was employed by American Viscose Corporation, subsequently American Viscose Division of FMC Corporation. During those years he was, successively, Plant Quality Control Manager, Plant Color Specialist, Corporate Color Specialist and Section Leader for Research and Development in synthetic fibers. Mr. Graham graduated from the University of Virginia with a Bachelor's Degree in Chemical Engineering and from the University of Louisville with a Master's Degree in Chemical Engineering. He has published in several technical journals and holds several patents.

In 1962, along with Everett R. Call and Robert Eppinger, he was one of the co-founders of the Color Marketing Group (CMG) and also served as the first President of CMG from 1962 to 1965. He has been a member of the Inter-Society Color Council since 1958, serving at times on several problem sub-committees and as a delegate from CMG. He is presently a member of the Society of Dyers and Colourists (SDC), the American Association for Textile Chemists and Colorists (AATCC), Alpha Chi Sigma Chemical Fraternity (AXE), Kiwanis, and in past years a member of the American Society of Quality Control (ASQC), American Institute of Chemical Engineers (AIChE) and the Optical Society of America (OSA). Mr. Graham was recently an Associate Adjunct Professor of the textile School of the State University of North Carolina at Raleigh. He is listed in *Who's Who for the East and for the Southeast* as well as *Who's Who in Finance and Industry*.

BONNIE K. SWENHOLT, PRESIDENT-ELECT

Bonnie K. Swenholt is presently employed by Eastman Kodak Company as a group leader with Photographic Technology Division, Physical Laboratory in Rochester, NY. Since 1970, she has been actively engaged in color sensitometry and densitometry measurements and, more recently, the group's efforts have been oriented along providing closer correlation between physical measurement and visual evaluation of photographs.

Originally joining Eastman Kodak in 1948, Ms. Swenholt was with the Physics Division until 1950 when she moved to the Photographic Technology Visual Research Studio where, as manager of the laboratory, she was responsible for photographic support to Ralph Evans' color vision research and lectures. It was during this period in her career that she became actively involved in color technology and co-authored papers on the chromatic strength of colorants.

Ms. Swenholt graduated from Florida State with a Bachelor's Degree in physics and received her Masters Degree from Northwestern University shortly before joining Eastman. She has been prominent in the ISCC, serving on many committees and has served as a director since April.

EDWARD T. CONNOR, TREASURER

Edward Thomas Connor joined Gardner Laboratory in 1971 as Executive Vice-President and General Manager. He has continued as Division President since Gardner became a Division of Pacific Scientific this year.

Mr. Connor was born in Greenburg, PA and earned a Bachelor of Science degree in Electrical Engineering at the University of Pittsburgh. Prior to joining Gardner, he spent ten years at the General Electric Co. in engineering and marketing capacities and in 1959 he became associated with Instrument Development Laboratories, Inc. as Manager of New Product Planning and later as Vice-President of Marketing, Executive Vice-

President, and then President. During these years he served as President and a Director of MCCA, as a Director of CTS, as a Senior member of ISA, and as a member of ISCC.

Involved in community affairs as well, he is a past President of Rotary Club, a Director of the YMCA, and active with United Fund, Little League and the Zoning Board.

FRED W. BILLMEYER, JR., SECRETARY

Dr. Billmeyer is Professor of Analytical Chemistry at Rensselaer Polytechnic Institute. He directs the Rensselaer Color Measurement Laboratory and is Editor-in-chief of *Color research and application*, among other responsibilities. He was President of the ISCC from 1968 to 1970, and has been Secretary since 1970.

Since the Office of Secretary is the only one for which there currently is but one nominee, Dr. Billmeyer asks that the following statement be included with his biographic notes:

"From the time I assumed the position of Secretary I have felt that there should be periodic, but not too frequent, changes among the more permanent officers of the Council, to allow for different points of view and to provide opportunities for younger people to assume leadership roles."

"I feel also that the transition in these offices should be orderly because of the complexity and magnitude of the responsibilities of the offices involved. The new designate for the office should work closely with the incumbent both before and after the actual transition."

"As early as 1977, I expressed to the Board of Directors my desire to resign as Secretary, with an orderly transition, well in advance of my retirement at Rensselaer in 1984. I have reminded the Board of this intention several times in the interim."

"When the Nominating Committee agreed that there should be two candidates for other offices in the impending election, I urgently requested that there be two candidates for the office of Secretary also. This request was turned down on the basis that a suitable replacement had not been located, and that it was considered undesirable to have the possibility of the offices of both the Secretary and the Treasurer changing hands at the same time. I therefore reluctantly agreed to run unopposed with the understanding that the coming term will definitely be my last as Secretary."

"I am pleased to report that an eminently suitable candidate for the office of Secretary beginning in 1982 has now been located, and that work toward the orderly transition I so desire is progressing satisfactorily."

JOY TURNER LUKE, DIRECTOR

Joy Turner Luke is a painter and owner of Studio 231 in Sperryville, Virginia where she conducts intensive two-week courses in color. She began doing commercial illustration at 16 and by 19 was the head of the display department of Dickerson-Ives Company in Orlando, Florida. Beginning in 1960 she exhibited paintings in many large exhibitions in the Washington-Baltimore area, winning the Gretchen Hutzler award in the 1962 Maryland Regional Show at the Baltimore Museum of Art, and the Second Artists Prize at the same museum in 1963. Her paintings were included in shows at the Corcoran Art Gallery and at the Smithsonian Museum.

Ms. Luke's paintings have been handled by several galleries in the Washington area and for 7 years by the Studio Gallery where she was given 3 one-woman shows. Her work was also

shown by galleries in Williamsburg, Virginia and Providencetown, Rhode Island. During these years she taught painting, Drawing, and a class on color at Studio II Art School in Alexandria, Virginia. From 1968 until the present, Mrs. Luke has been teaching a concentrated Color Workshop for the Art League in Alexandria to the classes at Studio 231.

She lectures on color to groups with many varied interests, such as: the Washington Chapter of the Optical Society; the Cartography Division at the Central Intelligence Agency; the Principles of Color Technology course at Rensselaer Polytechnic Institute; the Embroiderers Guild; Congressional Branch; and the Northern Virginia Fine Arts Association.

Ms. Luke is very active in the Inter-Society Color Council as chairwoman of the Committee on Artists Materials (#37) and as a member of the delegation from Artists Equity Association and was the first chairwoman of that delegation. She serves also on the Editorial Board of the journal *Color, research and application* and has published in that journal. She gave an invited paper at the 1978 Williamsburg Conference on Objectives of Pictorial Color Reproduction. In addition, she writes regularly for publications such as the AEA National Newsletter and the Artworkers News on artist materials. Ms. Luke is chairwoman of subcommittee D01.57, Artists Paints and Related Materials of the ASTM and is also a member of D01.26. She serves on the NBS Standing Committee for Artists' Oil Paints as well. Ms. Luke was elected to Who's Who of American Women in 1977-78 and is a member of the Optical Society of America, the Woman's Caucus for Art, the Washington Conservation Guild and serves on the Board of Directors for the Art League in Alexandria.

WILLIAM A. THORNTON, DIRECTOR

William A. Thornton is employed by the Lamp Division of Westinghouse Electric Corporation in Bloomfield, NJ where he is engaged in applying color vision research to the design of fluorescent and vapor lamp emissions. He had published over 60 articles in various technical journals and is a well-known authority on color illumination, having lectured widely on this subject.

Dr. Thornton was born in Buffalo, NY and began his college education at Allegheny College only to be interrupted by World War II. He returned to earn a Bachelors Degree in Physics from University of Buffalo, followed by his Masters and PhD from Yale University. Before joining Westinghouse, the first five years of his professional career were with General Electric Corporation in Schenectady, NY working with electroluminescence.

Dr. Thornton has been active on various ISCC committees serving as the current chairman of the Illuminating Engineering Society delegation. He was recently elected a Fellow in that society. Outstanding among his honors is the Westinghouse Order of Merit which is that company's highest honor.

TREVA PAMER, DIRECTOR

Dr. Treva Pamer is an Associate Professor of Chemistry at Jersey City State College where she teaches a course of her own design called "Chemistry for Artists." She also holds an appointment as Research Collaborator with Dr. Edward Sayre at Brookhaven National Laboratories.

Her primary research interests are in the fields of the chemistry of art materials and the conservation of works of art on paper. She is a task group leader of the ISCC Art Material Sub-

committee 37 and of the closely related ASTM Subcommittee D01.57. She has published several papers on her studies of acrylic artists' paints.

Her formal academic training was in the field of biochemistry with a PhD from New York Medical College where she published a dozen papers on studies of gastric secretion prior to her conversion to color chemistry.

She is secretary and board member of the Hudson Berger Chemical Society, a subsection of the American Chemical Society. She is secretary of the New York Paper Conservation Group and a member of both the International and American Institutes for Conservation.

ALLAN B. J. RODRIGUES, DIRECTOR

Dr. Allan B. J. Rodrigues is a staff engineer in the Fabrics and Finishes Department of E. I. Du Pont de Nemours and Company at the Troy, Michigan laboratories. He is with the Color Operations Group, responsible for support of their instrumental color operations. His research has covered all phases of color paint manufacturing, applying instrumentation and computers to color styling, formulation and batch shading. He has lectured here and abroad and published papers on color science and its application to total instrumental color systems.

He received the B.Sc. Degree in Chemistry from the University of Bombay in 1962 and then studied Chemical Engineering at the University of Notre Dame, earning a PhD in that subject in 1969. Allan then joined Du Pont at their Experimental Station near Wilmington and held a position at Marshall Laboratory in Philadelphia before his present assignment in Troy.

He is currently co-chairman of ISCC Project Committee #27, indices of Metamerism.

ROBERT T. MARCUS, DIRECTOR

Robert T. Marcus is a Research Associate in the Coatings and Resins Division of PPG Industries, Inc. In charge of the Color Science and Technology Research Group at PPG's Springdale Research Center, he is responsible for color research, digital computer color control in manufacturing, and the training of personnel in color technology.

Dr. Marcus' education includes a B.Sc. degree in Physics from Rensselaer Polytechnic Institute, which he received in 1968. After a year with IBM Corporation in Providence, RI he returned to RPI to study color science under Prof. Billmeyer, receiving his PhD in chemistry in 1974.

Dr. Marcus has both published and lectured on color science. He is current chairman of the Federation of Societies for Coatings Technology's delegation to the ISCC, President of the Pittsburgh Society for Coatings Technology, and on the Board of Directors of the Council for Optical Radiation Measurements (CORM).

LEROY E. DEMARSH, DIRECTOR

Mr. DeMarsh, a native of Glens Falls, New York, graduated from Clarkson College of Technology in 1956. Since 1956, he has been a member of the technical staff of the Eastman Kodak Research Laboratories, engaged in applied research on the physics of color imaging systems. He has authored several papers on color reproduction in photography and television, including three papers presented to ISCC symposia and meetings. A member of several SMPTE standards committees, Mr. DeMarsh is an SMPTE delegate to the ISCC and is chairman of

the SMPTE Television Colorimetry Subcommittee. He also is active in the CIE and is chairman of the USA CCIR subgroup on image quality and chairman of the ISCC committee on image technology.

NEW INDIVIDUAL MEMBERS

Ms. Lee Buckley
McCall Pattern Company
230 Park Avenue
New York, NY 10017

Consumer's reaction to color in both packaging and clothes preference. American Marketing Association.

Mr. H. James Carlin
Worth Chemical & Paint Co.
P.O. Box 987
Lake Worth, FL 33460

AChS, FSCT. Computer color matching and spectrophotometry. Am. Inst. Chemical Engineers.

Dr. Richard Corth
Department 8006
Westinghouse
Bloomfield, NJ 07003

AChS, IES. Relationship of illumination and the perception of colors. AAAS, AIBS.

Mr. John Dickenson
2894 Fontenay Road
Shaker Heights, OH
44120

AChS, DCMA, NPCA, SPE. Toxicology of colorants and government regulations controlling their use. AAAS. (Harshaw)

Mr. Ahmed A. Elsamnoudi
173 Spring Street
Passaic Park, NJ 07055

Instrumentation and the use of computer color matching to solve the problems of matching non-opaque layers over substrates of known color.

Mr. A. William Erspamer
Scott Paper Company
P.O. Box 2447
Mobile, AL 36601

AATCC, TAPPI. Shade matching and process control of manufacturing.

Mr. James J. Falls
4 Bridge Street
Salem, NH 03079

Applications of spectrophotometers in the textile, paint and plastics industries (Diano Corporation)

Dr. William H. Faul
Eastman Kodak Co.
Kodak Park
Photo. Tech. Div.,
Bldg. 69
Rochester, NY 14650

AChS, SPSE. Develops interactive computer algorithms using current CIE-defined calculation methods and parameters as well as possible new ones, so as to provide rapid answers for film-builders and others to questions involving color reproduction.

Dr. A. H. Fenton
124 Edward
Toronto, Ontario
CANADA M5G 1G6

ACP. Education of dental students, basic knowledge for shade matching procedures, standardization for the dental industry.

Miss Nancy Jo Fox
301 East 53 Street, 1-b
New York, NY 10022

ASID. The infinite possibilities of color as "the silent language"—instant communication—and its effect on the total environment of mankind. (New York School of Interior Design)

Mr. Howard T. Jones
Box 1174
Pittsburgh, PA 15237

FSCT. Application of instruments and computers to color problem solving.

Mr. Ronald P. Kern
Apartment 13
Briarwood Manor
Deridder, LA 70634

Mrs. Miriam Sellers
Lapham
5 Edgemere Dr., Brighton
Rochester, NY 14618

Mr. Simon Perelmutter
6 Ave. Pierre 1 er de
Serbie
75116, Paris
FRANCE

Ms. Constance L. Rezendes
Connie Rezendes Interiors
156 Stony Creek Road
Bradford, CT 06405

Mr. Carl J. Reiger
18 White Street
Buchanan, NY 10511

Ms. Camilla Ann Scott
2114 Golf Course Dr.
Reston, VA 22091

for geologic maps, and researching the parameters of ortho-photo and landsat imaging.

Mr. Dennis H. Tompkins
8 Commonwealth Avenue
Woburn, MA 01801

Mr. F. Thomas Vonderbrink
P.O. Box 546
Winfield, Kansas 67156

Mr. Carl G. Wright
Route 4, Box 473
DeRidder, LA 70634

NEW DELEGATE

Dr. James E. Owen
Harshaw Chemical Company
1945 E 97
Cleveland, OH 44106

CHANGES IN CORPORATE MEMBERSHIP

Mr. C. Bridle
Imperial Chemical Industries Ltd.
Plastics Division
Bessemer Road, Welwyn
Garden City
Hertfordshire AL7 1HD ENGLAND

SPE. Plastics-color-pigments-computer color matching-color theory-concepts.

MFA student in painting at RIT. Works primarily in encaustic painting, using "pure" artists' dry colors.

Dental ceramics and dental photography. Centre Francais de la Couleur

Color specifications and layouts as a consultant to architects, builders, and developers. Interior designs for residential and contract installations.

AChS, ASTM, FSCT, SPE. Geometric metamerism involving metallic flake and pearlescent pigments—gonio effects of reflection of light.

ASP, GATF, TAPPI. Developing press controls, establishing ink identification system, designing color charts, clarifying the use of color

for geologic maps, and researching the parameters of ortho-photo and landsat imaging.

Development of practical color tolerance systems for industry; instrumental color measurement and its relation to visual color assessment. (Diano Corporation)

ASTM, FSCT. Test methods and light fastness of artists paints (Permanent Pigments).

SPE. Color concentrates and compounds prepared in ABS and polyolefins in the fields of automotive, fibers, injection molding, and film applications.

AChS, DCMA. Development of new pigments, dyes, and ceramics, and optimization of existing products. Am. Inst. of Chemists.

replacing John A. Keitch

Miss Lynn M. Foy
Valspar Corporation
202 Jacobs Avenue
Fort Wayne, IN 46801

replacing Richard Okragly

Mr. Donald L. Nock
Alcoa Technical Center
Alcoa Center, PA 15069

replacing Rolf Rolles

Mr. Howard Paine
National Geographic Society
Seventeenth and M Streets, NW
Washington, DC 20036

replacing Dee J. Andella

VIGNETTES FROM THE PRESIDENT'S DESK

This very interesting year of 1979 will soon come to a close. Early in the year we had a very successful conference in Williamsburg entitled "Judd Memorial Conference on Color Metrics." This conference provided an opportunity for workers in this field to discuss facts and theories that have emerged since the Dribergen Conference (1971) on this subject. Many world experts attended and participated at this conference and shared their studies with us.

Our 48th Annual Meeting was held in New York City and was indeed well attended. The meeting offered a variety of programs dealing with art, science, and industry. We had two symposia at this year's meeting—one on "Color in Motion Pictures and Television" and the second on "Selecting Colors for Automobiles." Judging from the long question-and-answer period, one concludes that this symposium was indeed well received.

It would be much too ambitious to try to summarize here other organizations' activities in the field of color. However, I do want to mention three major events where many ISCC members participated.

In May, 1979, one of our Member Bodies, the AATCC, held a "Color Measurement Symposium" in Charlotte, NC that was very well organized and attended. The AATCC was encouraged to continue to organize such symposia in the future.

The highlights of this year's activity were the two international meetings held in Japan—the AIC Symposium and the CIE Meeting. The AIC held its midterm symposium in Tokyo last August entitled "AIC Midterm Symposium 79—Color Appearance." The scope of the AIC meeting was summarized as follows: The role of color is immensely increasing in our everyday life, and demand for qualitative and quantitative treatments of the color appearance is as great as ever. The appearance of color, however, changes greatly and in a complex manner depending upon situations, and a simple solution has not yet been derived. The symposium was planned in order to search for a possible solution for the demand. The themes covered included color difference, color adaptation, color space, color atlas, and color signals. The CIE Quadrennial Meeting took place in Kyoto, Japan on August 20-28. About 700 delegates from 32 countries attended, among them 55 Americans. Eighty-two papers dealing with various phases of lighting were presented during the session. At the colorimetry committee meeting the advances in the field were reported and in particular the new work in chromatic adaptation. In the area of fluorescent whiteness, two linear type formulae were recommended for field trials. A number of CIE technical reports from various committees were finalized in Kyoto and will soon be issued.

Since these notes will probably not reach you prior to December, it seems appropriate to me to take this opportunity to express to you all our thanks for your interest and for your contributions to the ISCC during the year.

Best wishes to you all.
Franc Grum

48th ANNUAL MEETING OF THE INTER-SOCIETY COLOR COUNCIL, APRIL 23 AND 24, 1979

When the discussion of writing a brief summary of my observations of the Annual Meeting of the ISCC took place, it was suggested that this description might reflect the typical reactions of a new society member. A one-year membership in ISCC eminently qualifies me as a novice at society annual meetings, but my impression of the society and its meeting excludes a "typical" reaction, whether novice or veteran member. So consider this as a personal reaction to a well planned and well executed professional meeting.

The diversity of the membership and their application of color and appearance technology was reflected in the variety of projects considered by the problem committees. As a pigment manufacturer's representative, I chose this schedule of committee meetings: Color Difference Problems; Color Acceptability Standards; Indices of Metamerism; and Procedures and Material Standards for Accurate Color Measurement. In each, I found a full room of participants speaking familiar language about my marketplace. To describe the committee atmosphere, the first adjective I would use would be enthusiastic, closely followed by sincere, intelligent, and so forth until I'm describing a highly successful technical discussion. The workings of the past year in each problem seemed only slightly hampered by the inconveniences of geographical distances, time limitations, and shipping problems. This part of the meeting offered the comradery of my technical counterparts, working on problems whose answers would directly benefit my job application of color technology. Still, I'd like at some future Annual Meeting to sit in on a less directly applicable Problem Committee meeting and find out something about the group interested in, for example, Color of Living Tissue. Who are the attendees and how are they applying this same technology to a different question?

The Tuesday morning symposium "Color in Motion Pictures and Television" was a well prepared, interestingly presented in-depth look at an application of color technology to another industry. My reactions were no longer participative as in the Problem meetings, but rather those of a well-hosted guest. Much valuable information was given in a very entertaining presentation. The final session of the Annual Meeting, "Selecting Colors for Automobiles" was a great success. The representatives of American Motors, Chrysler, and General Motors succeeded in eliciting much audience response—typifying the American fascination with the automobile that pervades our society. The Annual Meeting came to a very spirited close with a lively question and answer session on this subject.

Betty Lou Millikin

WALDRON FAULKNER, ISCC PRESIDENT 1956-57, DIES IN WASHINGTON, D.C.

Waldron Faulkner, whose death on May 11, 1979 was recorded in the newsletter before last, became associated with

the ISCC about 1949 when the American Institute of Architects became an ISCC member body. Prior to that he had been an active member of the Washington & Baltimore Colorists, a member of its program committee in 1945. Through him Walter Taylor, AIA director of education and research, became acquainted with the Colorists and with the ISCC. With advice and assistance from his new ISCC friends Mr. Taylor arranged a Color Seminar for the 1949 AIA meeting in Houston, and about that time—with Waldron's cooperation—arranged for the AIA to become a member body of the ISCC. Waldron Faulkner was named chairman of the AIA delegation to the Council, a post he held until his death.

It was Waldron's experience with the difficulties involved in matching the colors of Indiana limestone in buildings built several years apart that led to his request for the establishment of ISCC Problem 17, Color in the Building Industry, a committee he chaired for many years. (His book, *Architecture and Color*, Wiley 1972, on pages 37-39, includes a chart of color samples of limestone submitted for "light, medium, and dark grays and buffs" that clearly demonstrates the limestone problem.) In 1966 the emphasis of the committee's work changed and the problem was re-established as Problem 30, with Milo Folley as chairman. Much educational work was done to point out ways in which color science could be coordinated and applied to color problems in the building industry. This having been accomplished, in 1978 the scope again re-directed the work, this time toward establishment of guidelines to improve the presentation of colored building materials in manufacturers' literature so that they can be better selected and more accurately identified by architects and designers. Because this was a project close to Waldron's heart, he became chairman and began active work with a committee that this time consisted mostly of architects, whereas his first committee had consisted mostly of color scientists, for the problems differed greatly. He was actively working on this project when his final illness brought his work to a sharp close.

In his review of Waldron's book (ISCC N.L. #219, 1972) Ralph Evans said that "as an active participant in Council affairs for many years, Waldron has done more than anyone else to call the attention of delegates to the problems involved and, as head of a problem sub-committee on the subject, has attracted remarkably large groups to his meetings." Albert O. Halse, in his review for the AIA Journal (ISCC N.L. #219, 1972) calls Waldron's book "concise, interesting and informative about a part of architecture that is too often neglected by the profession." Waldron himself, in the Preface for his book says that he wrote it "with the hope of giving my colleagues in architecture some of the benefits that I have enjoyed from my association with many of the leading colorists in this country and abroad. This association has not only been most enlightening to me but has also been a great source of pleasure."

Waldron's love of life and enjoyment of all its many phases—whether family, community, or professional—permeated all his contacts. At the Memorial Service held for him at St. Margarets Church in Washington on May 16, 1979, the church was filled to overflowing with those who had known him in one or another phase of his life. In a beautiful Prayer of Thanksgiving the Rev. Malcolm Marshall, rector of St. Margarets 1948-1978, gave thanks for the "gifts bestowed upon us" through the life of Waldron Faulkner. Among the eight that he listed were three that seem particularly appropriate to repeat for his ISCC friends:

—for the richness of his life, so graciously and honorably fulfilled

—for his delight in people, his innate courtesy and courtly manners, his consummate grace and generosity as a host, his love of anecdotes whether his own or others, the erectness of his carriage, the spring in his walk, and above all his charm and elegance inspiring others to respond on higher levels of thought and expression

—for his self-forgetting courage which enabled him to meet sickness and death with open eyes, head erect, and continuing dignity.

As reported in the last Newsletter, Waldron Faulkner died quietly at his home on May 11. He knew the end was near, that he could not report to the ISCC April meeting on the work he had so hoped to complete. The Board of Directors received his greetings and resignation, and promptly elected him an Honorary Member. Word of this action, relayed to him through his wife immediately following the meeting, pleased him very much.

Waldron Faulkner was born January 21, 1898 in Paris, France. His father, Herbert Waldron Faulkner, born in Connecticut, was a painter who, after maintaining a studio in Paris for several years, returned to the United States in 1908 to establish himself permanently in Washington, Conn. In "Our Town," an essay Waldron wrote several years ago, he says that although he was born in Paris and can recall his childhood there with some degree of clarity, his brightest memories were of his youth in New England in the hills of Connecticut. He attended Gunnery School there, then Yale's Sheffield Scientific School (1919) and its School of Fine Arts (1924). After several years in New York, in 1934 he moved to Washington and in 1939 formed a partnership with Slocum Kingsbury, becoming Senior Partner of the architectural firm of Faulkner, Kingsbury & Stenhouse 1946-1965. They specialized in institutional buildings, schools, hospitals, institutional headquarters. After his son Avery, one of two sons who became architects, became a partner in 1965, Waldron remained until 1968 Senior Partner of Faulkner, Stenhouse, Fryer & Faulkner. His last major architectural commission was the National Portrait Gallery and the National Collection of Fine Arts. For them he received an AIA Regional Honor Award in 1969, and in 1970 their National AIA Honor Award. Earlier design awards had been made by the Washington Board of Trade for the Suburban Hospital (1943), George Washington University Hospital (1947), Providence Hospital (1956), Evening Star Newspaper Building (1961), American Chemical Society Headquarters (1961), and Holy Cross Hospital (1963). He was active in community affairs: President of the Washington Urban League (1938-41), President of the Yale Club of Washington (1943-44), President of the Cosmos Club (1953), and in 1956-57 President of the Inter-Society Color Council.

Waldron's family meant a great deal to him. In 1926 he married Elizabeth Ferry Coonley (a remarkable and gracious lady in her own right) to whom he remained devoted. They had three children, two sons (Avery Coonley and Winthrop Waldron, both architects) and a daughter (Celia Faulkner Clevenger). By the time of his death he was blessed with ten grandchildren in whom he took great pride and pleasure. It was a moving sight to see them as they filed out in the recessional at the memorial service for their grandfather.

We shall miss him in our Council meetings.

D.N.

Editor's note: The preceding two items were to have appeared in the previous issue of the newsletter, but they were inadvertently left out.

THE COLOR APTITUDE TEST—1978 VS. 1964

The ISCC delegation from the Federation of Societies for Coatings Technology is in the process of comparing the 1978 version of the Color Aptitude Test with the 1964 version. To date 49 observers have been tested, 45 with normal vision and 4 with color defective vision.

Ten observers at CIBA-GEIGY and ten at PPG took the same two tests. Ten observers at Sherwin Williams continued with the same 1978 version but a different 1964 version. Likewise, the last 19 observers at DeSoto also took the same 1978 version with a different 1964 version. An effort will be made to obtain 30 more observers this fall and winter. Although the overall scores for the first 20 observers resulted in a sum of the differences (1978 score-1964 score) of -1, the next 25 normal color vision observers weighted the sum of the differences to a +89 which is an average increase almost two for the 1978 test. Twenty-four observers achieved higher scores on the 1978 version; 19 had higher scores on the 1964 version and two observers scored the same on both versions. Those results do not show an overwhelming trend in favor of higher scores in the 1978 version. However, when the individual scores for each color row are examined, definite trends are observed. Seventy-three percent of the observers had high scores on the 1979 test for both the blue and the tan (yellow) chips while 62 percent scored higher on the 1964 tests for the red and 67 percent were higher on the green on 1964 tests.

While the trends "cancel" for the overall effect, questions remain as to the origin of the trends and their effects on the original validations. Hopefully these questions will be answered as more observers take these tests.

RECENT COLOR TRENDS OBSERVED IN THE U.K. IN CARPET, CURTAIN & DRAPERY FABRICS AND DOMESTICS:

The Carpet Fair held in Harrogate during the first week of September showed a marked change in the overall color palette being offered the British retailer and consumer.

Berber looks continue to play a major role both in construction and coloration. But the rest of the color palette shows a decided movement away from the heavy, dark look and over-reliance on deeper browns, toward a palette expressing medium and pastel-like values. Medium tones, such as Tobacco-like browns, warm medium-value beige tones, rusts, clays, grayed Heritage blues, rose tones and of considerable importance the strong appearance of a family of greens, such as celadon, willow and sage. Gray is important, but primarily in more expensive carpets.

The influence of North American (U.S. and Canada) styling is very strong, partially based on a favorable exchange rate for exports from our continent. We see this influence not only in color but in construction and more and more the Saxonies, Tak and Resist dyed carpets are seen in the stores. However these are not only imports but excellent versions by several of the U.K. carpet mills.

A rather interesting comment made to us by stylists and marketing directors was that the influence on color styling created by the popularity of the Victorian and Edwardian TV

shows, Masterpiece Theater, Lily, The Pallissers, Upstairs Downstairs has been a considerable factor in the shift to and acceptance of the softer color palette.

It is very obvious that there is a considerable upgrading in the color and product taste level of the British consumer, both in Apparel and in Home Fashions.

From Harrogate we went to London for a round of meetings and visits with Designers, Fiber Companies and key retail stores in various price and product categories.

In Curtains & Draperies there appear to be 2 definite emerging directions: One is around a Natural theme, showing Berber colorations, Berry colors, olives, warm deep browns, clay-like colors, wisteria. The second shows bright clean pastels—blues, lavenders, apple greens, yellows and pinks.

In Upholstery Fabrics again we see two directions; a Natural story, simulating natural colorations, textures and constructions. A Historical or nostalgic emphasis, picking classic constructions of velvets and tapestries. Important color looks here are in the maroons, olives, jades, reddish tangerines, garnets, browns (medium) and mauve tones. These often tie in with light grounds in prints and wovens.

In the Domestic area the strong color influences were in the Burgundy/Rose/Pink family, in the Bluish greens of celadon, seafoam and Sherwood green, in the Heritage and Navy blues and in gold and yellow combinations. Browns are still important in the medium value area and lilacs, wisterias and mauves were being shown and featured in higher price lines with signs of their movement into popular priced ranges.

As in carpets the trend is toward upgraded and better styled products.

Yale Forman

COLOR APPEARANCE INTERNATIONAL COLOR ASSOCIATION (AIC) (MIDTERM TOKYO SYMPOSIUM) AUGUST 16-17, 1979

The one and one-half day symposium scheduled 16 papers by authors from nearly as many countries. There were approximately 40 participants from Japan and 30 from 13 other countries, including 10 from the USA.

AIC President, Dr. C. James Bartleson (USA) was invited to give the opening paper on Chromatic Adaptation. Using beautiful slides and no notes, Jim provided an excellent review of the subject. Participants will likely recall different papers depending on their particular interest. I recall particularly the presentations of Ernst Ganz (Switzerland), Robert Hunt (UK) and Klaus Richter (German), but there were many good papers. A list of papers and authors is appended as well as the names of the ISCC participants from whom more information can be obtained.

Although not a great deal of new material was presented at the symposium, the papers provided a basis for discussion, and no participant should have come away without a better understanding of some phase of color appearance. All papers were presented in English, even though some of the English was "fractured."

There was also a small exhibit of Japanese appearance-measuring instruments (colorimeters, glossmeters, spectrophotometers, and a goniophotometer) as well as the Macbeth MS 2000 spectrophotometer. The instrument literature was available primarily in Japanese with some in English. Japanese are building some fine appearance-measuring instruments, but

we have not seen them in the United States.

On the first evening there was also a fine social get-together at which Dr. Gunter Wyszecki received the Judd medal. Wyszecki is the third recipient of the award established by Betty Judd in honor of her illustrious husband, Dr. Deane B. Judd, who died in 1972. The award ceremony was followed by an excellent buffet dinner.

The organizing committee is to be commended for putting on a fine symposium and the whole Japanese color community for being excellent hosts.

Note that the Fourth AIC Congress is planned for September 20-25, 1981 in Berlin, West Germany. For information contact Professor Dr. Ing. M. Richter, Unterden Eichen 87, 1000 Berlin, Federal Republic of Germany (West Germany).

Harry K. Hammond, III

LIST OF PAPERS AND AUTHORS

On the uniform color space under Illuminant A—Y. Nayatani, K. Takahama, and H. Sobagaki

Chromatic adaptation—C. J. Bartleson

Colour constancy as hue constancy or object constancy—S. S. Bergstrom

The effect of lights of long wavelength upon discriminations mediated by the blue-sensitive mechanism—R. M. Boynton

Direct psychometric scaling of color rendering—L. Sivik

Major attributes in colour appearance and their quantification—R.W.G. Hunt

Individual differences in perceiving whiteness—E. Ganz

Perceptual components in Munsell colors—T. Indow

Colour recognition of signal and surface colours—P.L. Walraven

Unique hues—M. Akita, N. Osaka, Y. Ejima

Spectrosensitivity functions determined by the rapid scan technique—P.K. Kaiser

Line elements of color space—G. Wyszecki

Experimental determination of a perceptively equidistant scale in the color space—A. Nemesics

New description of color discrimination properties of light sources—J. Schanda

CIE '76 color spaces and proposals for modification—K. Richter

A color space versus a color relations space—aspects on the psychometrics of color—A. Hard

ISCC MEMBERS ATTENDING:

Argentina-Lozano; Austria-Rotter; Canada-Kaiser, Robertson, Wyszecki; Federal Republic of Germany-Richter; Great Britain-Hunt; Hungary-Nemesics, Schanda; Netherlands-Walraven; Spain-Plaza; Switzerland-Ganz, Wuillemin; USA-Bartleson, Billmeyer, Boynton, Christie, Hammond, Hunter, Reilly, Simon, Styne, Weinstein; Japan-Baba, Indow, Kodama, Minato, Mori, Murakami, Ohta.

NEWS OF MEMBERS

Research Publications, Inc. to Publish New Color Collection

Research Publications, Inc. is proud to announce the publication on microfilm of *The Faber Birren Collection of Books on Color*. Faber Birren, eminent author, consultant, and theoretician in the field of color, has spent the past fifty years assembling a rich and diversified collection of books. In 1971, the Faber Birren Collection of Books on Color was presented to Yale University where it was established as a special collection in the Art and Architecture Library. Since that time, the collection has been systematically expanded through continued acquisition and the transfer of other relevant Yale holdings. The resulting collection is one of the finest of its kind in the world.

With Birren himself as bibliographic consultant, RPI will supplement the already rich Yale holdings with significant ma-

terials from other American and international collections to produce the single most comprehensive color collection available. The RPI collection will cover all aspects of color study, with special emphasis on color theory, art, painting, and the graphic arts in books printed from 1558 to the 1930s. It will include books concerning color in psychology, perception, vision, religion, medicine, mythology, symbolism, archaeology, mysticism, and the occult. While the original Birren collection included few references to the physics and chemistry of color, the microfilm collection will include the most significant works on these subjects.

This micropublication will include a special color microfilm supplement of all color plate material in the collection. RPI will produce standard AACR2 descriptive catalog cards with LC compatible main entries and subject headings, and a bibliography-reel index for the collection. These bibliographic aids will provide scholars with easy accessibility to a comprehensive collection of primary source materials necessary for the study of color.

Editor's note:

A more complete description of the Birren Color Collection will be provided later.

NEWS OF MEMBER BODIES

Federation of Societies for Coatings Technology

President Larson Announces Committee Chairmen for 1979-80

Chairmen of the 30 committees of the Federation of Societies for Coatings Technology for 1979-80 have been announced by President Elder C. Larson. A complete roster of all committees will be published in the 1980 Year Book.

An asterisk (*) indicates re-appointment.

A. F. Voss/American Paint & Coatings Journal Awards—Horace S. Philipp, of Sherwin-Williams Co., Montreal.*

Bruning Award—Ruth M. Johnston-Feller, of Pittsburgh, Pa.*

By-Laws—Fred Schwab, of Coatings Research Group, Cleveland, Ohio.

Corrosion—Saul Spindel, of D/L Labs, Inc., New York, N. Y.

Definitions—Stanley LeSota, of Rohm and Haas Co., Spring House, Pa.*

Educational—John A. Gordon, Jr., of University of Missouri-Rolla, Rolla, Mo.*

Environmental Control—S. Leonard Davidson, of N L Industries, Inc. Hightstown, N. J.*

Finance—James A. McCormick, of Inland Leidy, Baltimore, Md.

Heckel Award—Herbert L. Fenburr, of Columbus, Ohio.

Host (Annual Meeting)—Berger Justen, of Justen and Associates, Tampa, Fla.

Inter-Society Color Council—Robert T. Marcus, of PPG Industries, Inc., Springdale, Pa.*

Investment—Herbert L. Fenburr, of Columbus, Ohio.*

Liaison—John J. Oates, of Troy Chemical Corp., Newark, N. J.

Manufacturing—Donald Fritz, of Superior Varnish & Drier Co., Merchantville, N. J.*

Mattiello Lecture—Thomas J. Miranda, of Whirlpool Corp., Benton Harbor, Mich.

MMA Awards—William T. Cochran, of Bruning Paint Co., Baltimore, Md.*

Membership—William F. Holmes, of DeSoto, Inc., Dallas, Tx.

Memorial—Carroll M. Scholle, of Chicago, Ill.*

Metric Systems—Ernest L. Humburger, of Schenectady Chemicals, Ltd., Scarborough, Ont.*

Nominating—James A. McCormick, of Inland Leidy, Baltimore, Md.

Paint Industries' Show—Deryk R. Pawsey, of Rohm and Haas Canada Ltd., Vancouver.*

Program—Hugh W. Lowrey, of Indurall Coatings, Inc., Birmingham, Ala.

Program Awards—Gordon Allison, of McCormick Paint Works, Rockville, Md.*

Publications—Thomas J. Miranda, of Whirlpool Corp., Benton Harbor, Mich.*

Public Relations—Harry Poth, of Columbus, Ohio.*

Roon Awards—Umberto Ancona, of McCloskey Varnish Co., Philadelphia, Pa.*

Specifications—John A. J. Filchak, of General Services Administration, Auburn, Wash.*

Technical Advisory—Colin Penny, of Hampton Paint Mfg. Co., Hampton, Va.*

Technical Info Systems—Helen Skowronska, of Cleveland, Ohio.*

Trigg Awards—Al Seneker, of Ameron Corporate Research, South Gate, Cal.

Graphic Arts Technical Foundation (GATF)

New GATF Camera Book Published

Reproduction Photography for Lithography is the title of the Graphic Arts Technical Foundation's newest book on graphic arts camera operations.

Published last month, it is a text that provides information on the facilities, equipment, materials, and procedures necessary to produce first-rate lithographic photography.

Containing 344 pages and 98 illustrations, the new GATF camera text contains such chapter topics as:

- The basis of the photomechanical process
- Photographic department layout and equipment
- Graphic arts photography principles
- Continuous tone photography
- Halftone reproduction
- Line reproduction
- Color reproduction
- Manual retouching and correction
- Quality control

It is written for instruction in schools (high school through college) and in industry.

The new GATF book covers all basic aspects of photography in the lithographic reproduction process including a section on electronic scanning.

Reproduction Photography for Lithography is priced at \$9.50 for members of the Foundation and \$19.00 for nonmembers. All purchase requests should be mailed to the Order Department at the Foundation, 4615 Forbes Avenue, Pittsburgh, Pa. 15213.

Society of Photographic Scientists and Engineers (SPSE)

SPSE Calendar Update

March 23-29, 1980 — Photofinishing Technology Seminar, Aladdin Hotel, Las Vegas, Nevada

May 4-9, 1980 — 33rd Annual Conference, Holiday Inn Downtown, Minneapolis, Minnesota

August 10-13, 1980 — International Conference on Photographic Papers, The Homestead, Hot Springs, Virginia

Fall 1980 — 20th Fall Symposium

May 10-14, 1981 — 34th Annual Conference, The Grand Hyatt New York, New York, New York

Fall 1981 — 21st Fall Symposium

May 9-14, 1982 — 35th Annual Conference, Genesee Plaza/Holiday Inn, Rochester, New York

For further information contact: P. J. Forness, SPSE, Central P.O. Box 28327, Washington, D.C. 20005.

SPSE Issues Call for Papers for 1980 International Conference at Hot Springs, Virginia

The first call for papers for presentation at the 1980 International Conference on Photographic Papers has been issued by James Marron, Eastman Kodak Co. and Dr. Klaus B. Kasper, Schoeller Technical Papers Co., Papers Co-Chairmen of the event. The Conference will be held August 10 to 13, 1980, at The Homestead, Hot Springs, Virginia.

The general subject of the Conference is the manufacture, processing and use of photographic papers. According to General Chairman Dr. W.E. Lee, the past few years have seen a phenomenal growth in the use of photographic papers. Not only has the use of conventional color and black-and-white papers increased significantly but the use of other types of photographic papers has increased. As an example, Dr. Lee cited the printing industry, a 32 billion dollar industry in the United States, which relies on photographic papers for typesetting and uses many other photographic products in various graphic arts applications.

Among the areas covered by the Conference are the manufacture of paper and paper stock, emulsion coating, processing of photographic papers, paper printing plates, chemical transfer papers and phototypesetting papers.

Color and Appearance Division (CAD) Society of Plastics Engineers (SPE)

ANTEC '80 Program is Taking Shape

ANTEC '80 plans continue to look good. With the main topic on Solvent Dyes and their uses in coloring plastics, the following papers have been promised:

"Lightfastness and Heat Stabilities of Dyes in Thermoplastic Resins," C. D. Sweeny, American Color & Chemical Corp.

"Correcting for Translucency of Dyes Used in Plastics," O. R. Coutu, American Hoechst Corp.

"How Dyes and Pigments Can Work Together," G. Benzing, BASF Farben & Fasern A. G.

"The Use of Polymer Soluble Dyes in the Colouration of Plastics," R. E. Fielden, ICI Chemical Industries, Ltd.

"Weathering of Dyes in Acrylic," A. J. Pentz, Rohm & Haas Delaware Corp.

Additional papers are likely from Verona Dyestuff Div., Mobay Chemical Corp., Mitsubishi Chemical Industries, Ltd. and Sun Chemical Corp.

ANTEC '80 will be in New York at The New York Hilton, May 12-15, 1970.

W. E. Coleman,
Chairman Elect of Technical Program Committee

Coloring of Plastics XIII

The Regional Technical Conference of the Color and Appearance Division, Society of Plastics Engineers, was held on October 16th and 17th, 1979, at the Sheraton Post in Cherry Hill, New Jersey.

The RETEC, entitled "Coloring of Plastics XIII: Color and Appearance Control," covered a wide range of subject matter.

The lecture sessions (Tuesday morning and afternoon, October 16th) related specifically to color and appearance measurement and control. These papers included color vision and visual evaluation, choosing and maintaining standards, measuring the color of fluorescent plastics, gloss, haze, and yellowness measurements of plastic, sheet and film, formulation and control for economical use of colorants, and appli-

cation of polymer characterization in computerized dark color matching. Each speaker had 30 minutes of presentation, with time for questions and answers. The third session (Wednesday morning, October 17th) was general in nature and feature evaluating and implementing an in-house color program. This session was a one hour presentation, with time for questions and answers.

The workshops featured "hands-on" demonstrations of recently developed instrumentation and software and participants were encouraged to bring samples and problems for in-depth discussion. A color clinic provided the participants with an informal atmosphere for pursuing "one-on-one" discussions with the speakers and manufacturers.

The papers presented were:

Tuesday, October 16

- 9:15 A.M. "Color Vision and Visual Evaluation," B. Swenholt, Eastman Kodak—Color vision research has depended heavily on the careful control of viewing conditions including surround specifications. Some of the characteristics of color perception affecting the choice of conditions for visual evaluations are discussed and illustrated.
- 9:45 A.M. "How to Chose and Maintain a Standard," J. J. Smith, Rohm and Haas Delaware Valley—Color consistency results from shipping materials that are reasonably close to a material standard which is acceptable to both the customer and the supplier. This paper describes the two-step process used by one plastics color laboratory to select a material standard to control production of plastic products at more than one location.
- 10:15 A.M. "How to Measure the Color of Fluorescent Plastics," F. W. Billmeyer, Jr., Rensselaer Polytechnic Institute—The Color of fluorescent plastics should be measured to obtain correlation with visual appearance, to meet signal specifications, or as an aid in formulation. Each objective requires a different measurement and calculation method. Measurements and calculations of true reflectance curves can be obtained as an aid toward computer formulation.
- 11:00 A.M. Workshop 1—Color Formulation.
- 2:00 P.M. Workshop 2—Color and Appearance Measurement.
- 3:45 P.M. "Gloss, Haze and Yellowness Measurements of Plastic, Sheet and Film," J. S. Christie, Jr., Hunter Associates Laboratory—In measuring the appearance attributes of plastic materials, the influence of the surface and internal scattering characteristics are important. This paper will cover the optical characteristics of the materials involved and of the instruments used in measurement.
- 4:15 P.M. "Formulation and Control for Economical Use of Colorants," R. Abrams, Columbus Coated Fabrics—The cost of pigment or pigment concentrates is a significant concern in many plastic formulations. Intelligent formulation and control of the coloring process are essential to avoid wasting valuable pigment. Process control are important elements of economical coloring.
- 4:45 P.M. "Application of Polymer Characterization in Computerized Dark Color Matching," D. L. Alston, Applied Color Systems—Computerized color matching has become a recognized method for initial color formulation and batch corrections. Methods are known for characterizing colorants in terms of Kubelka-Munk Theory (absorption and scatter of light). With proper programs and sample preparation procedures dark-high chroma materials can be characterized in terms of absorption and scatter of light and handled as an independent variable in the matching program.

Wednesday, October 17

9:30 A.M. "An In-House Color Program for a Profile Extruder," W. A. Jarrett, Crane Plastics—In recent years, color and appearance have assumed greater importance for the custom profile extruder. With increasing customer demands for quality color in extrusions, the custom profile extruder must establish a program to meet these customer demands. This paper describes the procedure used by a custom extruder to evaluate and implement an in-house color program.

10:45 A.M. Workshop 3—Visual Evaluation of Color.

J. G. Davidson, Retec Program Chairman

Reprinted from *SPE Color and Appearance Newsletter*, Volume 10, Number 3, September 1979.

LETTER TO THE EDITOR

Do you know of any 16mm film on color theory that we could rent or purchase? We are particularly interested, of course, in color theory as applied to interior design or architecture.

Sheila B. Chapline, Registrar
New York School of Interior Design
155 East 56th Street
New York, N.Y. 10022

Color Research and Application, Volume 4, Number 3, Fall 1979

Articles

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Chroma Cosmos 5000. Reviewed by *F. Birren* — 171

The Year: 1985
The Time: Half Past Blue
The Timepiece: Chromachron

Tian Harlan, renowned European artist, proudly introduces Color-Time, Europe's most talked about STRESS FREE timepiece.

The world's first color timepiece by CHROMACHRON, is the NEWEST BREAKTHROUGH in telling time without stressful numbers since time gave birth to the clock. Although our elegant timepieces are surprisingly affordable—they are not for everyone. If you choose to wear the "fashion of the 80's" your Color-Time piece will tell a lot more than time—others will notice and admire something new about your personality.

Color-Time Lesson

In Color-Time, each hour is represented by its own beautiful color. The black disk rotates at the same rate as an hour hand and time is read through the open sector. The more of the next color that you see in the open sector—the further into the next hour you are.

Editor's note: The development described above was anticipated, as I heard it several years ago, by a little-known invention of Alexander Graham Bell. Bell had discovered a dye that would change color on exposure to light. After he had properly calibrated the effect, he would dip a piece of cloth in the dye, let it dry in the dark overnight, and then wear the cloth around his wrist the next day. Thus, in an age of pocket watches, he could tell the time of day by a glance at his wrist. The invention never became widely known, but his friends called it Alexander's Rag Time-Band.

MEETING NOTED

The Scientific and Technical Unions in Bulgaria, the Central Quality Bureau, the National Committee on Illumination, the State Committee for Science, the State Committee of Standardization, and the Higher Institute of Food and Flavour Industries in Plovdiv will organize a Scientific and Technical Conference on:

COLOR AS AN IMPORTANT QUALITY FEATURE IN THE NATIONAL ECONOMY. The Conference will be held on 6-7 June 1980 in Plovdiv, Bulgaria—Higher Institute of Food and Flavour Industries, 26 Blvd. Lenin.

MAIN TOPICS OF THE CONFERENCE:

1. Color in the illumination engineering industry.
2. Color in the food and flavour industries and agriculture.
3. Color in the textile and chemical industries (paints and lacquers, pharmaceuticals, etc.)
4. Color in the press and printing.
5. Color in transport, color vision.
6. Color in industrial design, architecture and environment.

The International Plovdiv Fair will organize a SPECIALIZED EXHIBITION "COLOR '80" showing instruments for color and appearance measurements at the time of the Conference.

For further information please contact:

Participation in the Conference: 1000 Sofia, Rakovsky Str. 108, Scientific and Technical Unions in Bulgaria, *Central Quality Bureau.*

Participation in the Exhibition: 4018 Plovdiv, 37 Blvd. G. Dimitrov, International Plovdiv Fair, *Telex 044432 PARTET BG.*

PRODUCTS AND SERVICES

AITTA travel

AITTA Travel is pleased to offer a unique service to ISCC members. AITTA has been working with associations for some time and has developed a service which has become a "must" for anyone who travels.

AITTA Travel initiated "FTC," Frequent Travelers Club, because of the needs of the association conventions we book every year. As a result of the volume of rental cars, Avis Rent-A-Car provides FTC members with a 20% discount on all discountable rentals booked through AITTA Travel.

There are no dues or fees charged. AITTA Travel and FTC are supported by the 5% commission paid to us by Avis. All it takes is a *simple* telephone call on our Toll Free Number – 800-327-3162 for a car reservation anywhere, nationally or internationally at any time. And it makes you and the members of your association automatic members of FTC.

We know it's incredibly simple—but it works. If you could inform your members in your next newsletter or mailing, that you have acquired *for them* a 20% discount on rental cars, they'll feel the association is working for them. *They can use this service at any time, not just during your conventions.*

For more information, write to: AITTA Travel, P.O. Box 2662, Miami Beach, Florida 33140.

Hunterlab

Hunterlab's D54A-5 Spectrophotometer is the newest of the Hunterlab line of instruments. The optical sensor's 0° illumination, 45° viewing was designed to view a specimen in the same way a human observer looks at color. This 0°/45° geometry eliminates specularly reflected light from the field of view and provides spectral analysis of reflecting surfaces that agrees with visual assessments.

Special features such as a 0.1" specimen viewing area allows measurement of very small spots. A separate optical sensor and microprocessor makes this unit especially flexible for many industry applications. Spectral data can be used to compute colorimetric values and provide checks against metamerism.

For more information, please call or write Hunterlab.

This space reserved for
ISCC Member-Body
News contributions.

ISCC Annual Meetings

1980: April 21-22 – Rochester, N.Y.

Williamsburg Conferences

1980: February 4-6

1981: February 9-11

1983: February 7-10

Dry Color Manufacturers Association

1980: The Greenbrier, White Sulpher Springs, WV, June 15-18

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 Editor:

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