ISCC 50TH ANNUAL MEETING

The ISCC will celebrate its 50th Anniversary at its annual meeting on April 26-28, 1981 at the Hotel Roosevelt in New York. In addition to the Project Committee Meetings, we plan three special symposia:

- 50 Years of Progress in the Use of Color
- Future Trends in Color
- Color Education

The symposia will discuss all aspects of color in art, science, architecture, industry, etc. We are pleased to announce that Miss Dorothy Nickerson has agreed to keynote the Symposia with a historical perspective on 50 years of the ISCC.

Other events planned include:

- A Sunday night reception at the Fashion Institute of Technology and featuring a Textile Printing exhibition by Mariano Fortuny.
- A Monday night slide presentation by Mr. & Mrs. Yale Foreman on Color in China.
- A Monday night banquet.

We can all be proud of our organization having achieved its 50th year. Let's have a great turnout to celebrate it!

Allan B. J. Rodrigues
Program Chairman

APPROVED INDIVIDUAL MEMBERSHIPS
at Board of Directors Meeting
October 17, 1980

Mr. Frank J. Alban
2500 Moundview Drive
Norwood, Ohio 45212

Mr. Robert L. Brumfield
4732 St. Clair Avenue
Cleveland, Ohio 44103

Mr. Thomas L. Cummings
8343A Greensboro Drive
McLean, Virginia 22102

Mr. G. Franklin Dean
144 Wanless Avenue
Toronto, Ontario
Canada M4N 1W2

Mrs. Phyllis Farrell
Pantasote, Inc.
250 Hamburg Turnpike
Butler, New Jersey 07405

Mr. John E. Hammond
General Foods Tech. Ctr.
250 North Street
White Plains, New York 10625

Mr. David N. Johnson
A. Schulman Inc.
790 E. Tallmadge Avenue
Akron, Ohio 44309

Mrs. Dorothy Nickerson
Miss Dorothy Nickerson has agreed to keynote the Symposia

Mrs. M. Susan Krach
Monsanto
730 Worcester Street
Indian Orchard,
Massachusetts 01151

Mr. Raymond Guido
Lauzzana
470 Columbus
San Francisco, California 94133

Mr. Wai-Mun Lee
Radiant Color
2800 Radiant Avenue
Richmond, California 94804

Mr. William R. (Rick)
Mathew
2038 Main Street
Cuyahoga Falls, Ohio 44221

Mr. E. Melse
PO Box 15639
2502 BP S-Gravenhage
Netherlands

Mrs. Heather A. Michaud
E. I. du Pont de Nemours & Co.
Textile Research Laboratory
Chesnut Run
Wilmington, Delaware 19898

Dr. Howard L. Needles
Division of Textiles &
Clothing
University of California
Davis, California 95616

SPE. Color formulation, stability, hands-on solving of practical problems in synthetic latex and acrylic-sheet-casting manufacture (Nova-mont corp.)

ASTM. The proper technique to use in measuring fluorescent colors and the building of a fluorescent computer matching program. (Day-Glo Color Corp.)

Instrument calibration problems, sample and testing problems. (Collaborative Testing Services)

IES. Visual effect of all light sources on objects. (Retired member)

CMG, H&G. Printed vinyl for home furnishings.

IFT. Natural colorings applied to food.

Production color matching and maintenance of the colors during processing, effects due to raw materials, process equipment, and manner of processing: eg. time and temperature.

Formulation of new colors and control problems associated with production of colored plastic.

AIA. Artificial and natural mechanisms for parsing images into "significant" segments and the relationship between this parse and natural color names. (IEEE, SPIE, Assoc. Computing Machinery)

ACHS, ASTM. Fluorescent color.

SPE. Color difference calculations IR-identification of pigments in a plastic system. Computer colorant formulations, pigment performance in plastic systems.

How to present simple information on general color subjects to the public. (Art student, member NVVK)

Computer assisted shade matching and evaluation of shade and strength differences.

AATCC, ACHS, ASTM. The nature of dye-fiber interactions and their effect on color. Use of dyes as probes to discover information covering the internal morphology of fibers and polymers.
Mr. Kenneth A. Palmer  
Dye Laboratory  
Mobay Chemical,  
Dyestuff Division  
PO Box 10288  
Charleston, South Carolina 29411  

Mr. Robert Roberts  
Sandoz Inc.  
Route 10  
East Hanover, New Jersey 07936  

Ms. Sarah Rudin  
15051 Joycedale Street  
La Puente, California 91744  

Mr. Paul A. Tudder  
Glidden Pigments  
2700 Hollins Ferry Road  
Baltimore, Maryland 21108  

Mrs. Patricia Verlodt  
Color Communications Inc.  
4242 W. Fillmore  
Chicago, Illinois 60624  

For Information: New Delegates  
Dr. Charles R. DuFort  
1543 Mesquite Street  
Wichita Falls, Texas 76302  

Mr. A. John Geis  
4615 Forbes Avenue  
Pittsburgh, Pennsylvania 15213  

Mr. Stan Newman  
Lewis Roberts Inc.  
72 Union Street  
Newark, New Jersey 07105  

Mr. John E. Peters  
4615 Forbes Avenue  
Pittsburgh, Pennsylvania 15213  

Mr. Edward J. Rinalducci  
School of Psychology  
Georgia Institute of Technology  
Atlanta, Georgia 30332  

Mr. Arnold C. Schieman  
155 - 58th Avenue  
Laval, Quebec  
Canada H7V 2A5  

Mathematical and instrumental methods: Reflectance and transmittance measurements used in production color matching and quality control. Digital computer programming.  

FSCT, SPE. Color measurement, quality control methods.  

Developing new materials for the graphic arts.  

DCMA, NPCA, SPE. Applications, testing. Psychology, marketing, color trends.  

CMG. Color styling, computer color matching in color-card systems.  

ACP. Color matching in dentistry, and formulating a complete range of tooth shades.  

GATF. Reproduction via printing methods.  

NAPIM. Multiple color printing, history of color printing, color matching, metamerism.  

ACHS, GATF. High quality color printing.  

APA/C, ASTM, EIS, OSA. Color vision, selective chromatic adaptation, color defectiveness.  

SMPTE. Color storage and dye fading and those things that might well affect their keeping.  

Dr. Stanley G. Wellso  
USDA SEA AR  
Department of Entomology  
Michigan State University  
East Lansing, Michigan 48824  

Dr. Thomas G. Webber: change SPE/C to SPE  

A. Changes in Status  
Prof. Alessandro DeGregori: add IDSA  
Mr. A. J. Pentz: change SPE to SPE/C  
Dr. Sidney Stecher, IMG, Psychology Department, Lehigh University, Bethlehem, PA 18015  

B. Additions  
The following members, dropped for lack of address, should be added with the new addresses indicated:  
Mr. Sy Commanday, IMG, Hercules Fibers, PO Box 8, Oxford, Georgia 30267  
Mr. Charles W. Fletcher, IMG, 99 MacDougall Street, New York, New York 10012  
Dr. Sidney Stecher, IMG, Psychology Department, Lehigh University, Bethlehem, PA 18015  

The following were inadvertently omitted from the membership list due to computer error and should be added:  
The Colour Group (Great Britain), c/o Dr. Michael R. Pointer, Kodak Limited, Research Division, Colour Laboratory W-93, Harrow, Middlesex HA1 4TY, England  
The Colour Group (India), c/o Indian Woollen Mills Fed. Churchgate Chambers, 7th Floor, 5 New Marine Lines, Bombay 400 000 India  
Detroit Colour Council, c/o Mr. James E. Grady, E.I. du Pont de Nemours & Co., C-D-P Department, 7187 White Pine Drive, Birmingham, MI 48010  
European Gemological Laboratory, 20 West 47th Street, New York, New York 10036  
Mr. Guillermo Marconi, IMG, Graphica Editora Color, SA, Apartado 6-2797, Estafeta el Dorado, PMA, Rep de Panama  

For Information: New Delegates  
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4615 Forbes Avenue  
Pittsburgh, Pennsylvania 15213  

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72 Union Street  
Newark, New Jersey 07105  

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School of Psychology  
Georgia Institute of Technology  
Atlanta, Georgia 30332  

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155 - 58th Avenue  
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Canada H7V 2A5  

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The Colour Group (India), c/o Indian Woollen Mills Fed. Churchgate Chambers, 7th Floor, 5 New Marine Lines, Bombay 400 000 India  
Detroit Colour Council, c/o Mr. James E. Grady, E.I. du Pont de Nemours & Co., C-D-P Department, 7187 White Pine Drive, Birmingham, MI 48010  
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Mr. Guillermo Marconi, IMG, Graphica Editora Color, SA, Apartado 6-2797, Estafeta el Dorado, PMA, Rep de Panama  

C. Deletions  
Mr. Ronald Bostick, IMG (no address)  
Mr. Gideon Fiat, SMPTE (no address)  
Prof. John E. Flynn, AIA (deceased)  
Mr. L. F. C. Friele, IMG (retired and resigned)  
Mr. Thomas J. Keane, IMG (no address)  
Dr. Don R. Morris, IMG (no address)  

C. Changes of Address  
In each case the new address is shown.  
Col. Ronald B. Blackman, ACP, IMG, 13235 Hunters Spring  
San Antonio, Texas 78230
NEWS OF MEMBER-BODIES

American Society of Interior Designers
For 1980 the American Society of Interior Designers is focusing on limited goals. The development of professional practice criteria, public education regarding ASID’s mission and membership recruitment have been given priority. This year’s national conference held August 20-24 in New York City reinforced this program with the theme, “Design Power 1980.” Leading designers and experts in many fields also examined critical issues confronting our society and their impact on interior design.

Our delegation has made several proposals seeking greater emphasis on color in the long range plans of ASID, and will work for greater involvement of the membership in the 50th anniversary of ISCC.

GRAVURE TECHNICAL ASSOCIATION
The Gravure Technical Association’s GTA 32nd Annual Convention will be held in Chicago at the Drake Hotel April 7-9, 1981. For further information telephone Warren Daum at GTA headquarters 212-661-8936.

THE COLOUR GROUP (GREAT BRITAIN)
Golden Jubilee of Colour in the CIE 1931-1981
September 28-29, 1981
All enquiries and correspondence should be sent to:
Miss M.B. Halstead, Symposium Secretary, Thorn Lighting Limited, Jules Thorn Lighting Laboratories, Great Cambridge Road, Enfield, Middlesex EN1 IUL, England.

COLOR ASSOCIATION OF JAPAN
Officers of the Color Science Association of Japan (CSAJ) for 1980-1982 are the following:
President – Prof. Tamotsu Fukuda, Ohtsuka Women’s University
Vice-President – Prof. Yasuo Ohta, Tokyo Medical College; Prof. Hiroshi Nakamura, Nagoya Institute of Technology; Mr. Shuji Kojima, Osaka Branch of Japan Color Research Institute
The address of CSAJ is as usual: c/o Japan Color Research Institute, 1-19, Nishiazabu 3-chome, Minato-ku, Tokyo 106, Japan.

Acta Chromatica, Vol. 3, No. 5
Special Issue: AIC Midterm Tokyo Symposium ’79
Session I
Chromatic Adaptation
C.J. Bartleson
Uniformity of CIELAB and CIELUV Space under Illuminant A
Y. Nayatani, K. Takahama, and H. Sobagaki
Discussion for Session I
Session II
The Effect of Lights of Long Wavelength upon Discriminations Mediated by the Blue-Sensitive Mechanism
R. M. Boynton and J. J. Wisowaty
This is the final issue of *ACTA CHROMATICA*, which was first published in 1962. *ACTA CHROMATICA* was the official publication of the Color Science Association of Japan, devoted to original papers on all branches of the science of color and cognate subjects. *ACTA CHROMATICA* was published annually, five issues making a volume.

The Color Science Association of Japan is now mapping out a program to become an Endorsing Board with common interests but diverse fields of activity such as cosmetics, reprographics, dye and pigment synthesis, medical research, polymers etc.

For further information, write to Applied Science Publishers Ltd., Ripple Road, Barking, Essex, England.

*ACTA CHROMATICA* will interest a wide variety of workers in a range of disciplines whose work involves dyes, pigments and their intermediates, and provide a common platform for investigators with common interests but diverse fields of activity such as cosmetics, reprographics, dye and pigment synthesis, medical research, polymers etc.

For further information, write to Applied Science Publishers Ltd., Ripple Road, Barking, Essex, England.


It is reported that Gordham N. Patel of Allied Chemical believes that color changes in polydiacetylenes have educational value. All of the following processes are accompanied by distinct changes in color.

Polymerization; Polymer conversion increases; Extraction of unreacted monomer; Phase change in a partially polymerized diacetylene; Melting of a polymer; Crystalization; Dissolution; Precipitation, gelation; Drying.

**PRODUCTS AND SERVICES**

**Natural Color System**

A COLOR ORDERING AND SCALING SYSTEM that assigns a unique code to each of some 1400 shades of color has been adopted as a national standard by the Swedish Standards Institute (SIS). It is called the Natural Color System (NCS) and was developed by the Scandinavian Color Institute after 15 years of research. The system is published in the *SIS Colour Atlas NCS* and contains text sheets in English and five other languages. Also provided are some practical aids such as a register with color cards, color samples in various sizes, and a lightness meter. Contact: SIS, Tegnergaten 11, Box 3 295, S-103 66 Stockholm, Sweden.

Reprinted from *ASTM Standardization News*.

**Graphic Arts Research Center**

The seminars listed below are scheduled for the first three months of 1981 at Rochester Institute of Technology's Graphic Arts Research Center. The seminars cover a wide range of topics in the graphic arts.
January:
05-07—Commercial Web Offset Workshop
12-14—Black & White Tone Reproduction
20-23—Color Seminar for Pressmen
27-30—Basic Quality Control for Graphic Arts

February:
02-05—Non Heatset Web Offset Production
09-12—Color Control for Cost and Quality
09-12—Quality Control for Photographic Processing
16-20—Printing Systems for the Paper Industry
25-27—Understanding Bindery Operations
25-28—Phototypesetting for In-Plant Managers

March:
02-04—Preservation of Photographic Images
02-04—Screen Printing Seminar for Electronics Industry
09-11—Commercial Web Offset Workshop
16-18—Photomechanical Preparation for Flexographic Printing
16-18—Black & White Tone Reproduction
16-20—Photographic Science
24-27—Color Seminar for Pressmen
30-01—Color Control for Cost and Quality

COLOR RESEARCH AT YORK UNIVERSITY

Although some work on the subject of color occurs in the Faculty of Fine Arts and in the Department of Physiology, the description herein covers only that work being conducted in the Department of Psychology. The work done on color in this Department is concentrated primarily in my laboratory. Two of my colleagues, Professor Hiroshi Ono and Professor Stuart Anstis have on occasion touched on color-relevant research. However, I believe it is fair to say that these forays into color research were incidental and do not comprise the main thrust of their research endeavors.

The research in my laboratory centers primarily on trying to understand how the human processes color information. A major corollary to this endeavor concerns using this information for the purpose of implementing visually meaningful measurements of light. My colleagues in these research efforts include Keiji Uchikawa (post-doctoral fellow), Hiromi Uchikawa (research associate), Deborah Bodinger and Steven Nusinowitz (graduate students).

Over the last 12 years, color research from this laboratory has been published in Journal of the Optical Society of America, Vision Research, Color Research and Application, Applied Optics, Canadian Journal of Ophthalmology, Behavior Research Methods & Instrumentation, Investigative Ophthalmology, and Visual Science. Our research efforts have included work on minimally distinct borders as a criterion of visual photometry, the determination of luminous efficiency functions by heterochromatic brightness matching, flicker photometry of equally bright lights, the saturation of spectral lights, additivity failures and heterochromatic brightness matching, and measuring human spectral sensitivity.

Current research efforts are concerned with finding improved means for equating differently colored stimuli for saturation, measuring wavelengths discrimination functions for stimuli equal in brightness as well as saturation, chromatic discrimination as a function of brightness and chromatic adaptation, saturation discrimination as a function of the interstimulus interval between the presentation of test and reference fields, and spectral sensitivity of point sources.

The various studies dealing with spectral sensitivities and wavelengths discrimination are an effort to better understand the functioning of the color vision system and also to better understand the capabilities of the various mathematical color vision models available in the literature. This work also has direct application towards attempting to find a suitable means for converting CIE luminance and colorimetric data into a measure of brightness that is visually meaningful. The chromatic discrimination study is an effort to better understand some of the basic vision properties, primarily as related to the opponent processing system and also to better understand the limits of our ability to match different colors in the presence of small spectral distribution differences. A lot of this work is directly coordinated with the CIE subcommittee on color differences.

An interesting new addition to our laboratory is the work on discrimination between two fields which are temporally separated. This is work being conducted by Dr. Uchikawa, who notes that fields in real life are rarely seen precisely juxtaposed one next to the other. The more frequent condition is looking first at one field then at another. This necessarily involves small time delays between viewing each field. Dr. Uchikawa's work in Japan dealt primarily with wavelength discrimination and now he will extend this work to include saturation discrimination. Mrs. Uchikawa will continue her work originally started in Tokyo with Dr. Ikeda on trying to understand our ability to detect colors in the peripheral vision in the presence of other complex colored patterns.

The color vision research in my laboratory has been generously supported over the last 12 years by the Natural Sciences and Engineering Research Council of Canada (formally National Research Council of Canada). The research activities in my laboratory are done in conjunction with the York University graduate program.

P. K. Kaiser
Department of Psychology
York University
Downsview, Ontario
M3J 1P3

COLOR SYSTEMS AND STANDARDS

As part of the Faber Birren Collection of Books on Color Art and Architecture Library — Yale University, New Haven, Connecticut (Listings are in chronological order)

An Exposition of English Insects with Certain Observations and Remarks. Moses Harris, 1776, Robson & Co., London, 172 pages, 8½ x 10½. This rare work named some 72 colors drawn from a hand-tinted color circle of pure hues, tints, shades and tones. Text was in English and French. It was one of the earliest efforts at color identification and naming.

Werner's Nomenclature of Colours, Patrick Syme, 1814. Published by James Ballantyne & Co., Edinburgh, for Wm. Blackwood, John Murray, Robert Baldwin. An early, key work, 5 x 8, designed chiefly for naturalists. Has 13 plates with 108 color samples named and numbered in terms of animal colors, vegetable, mineral. (This elaborated an earlier system by A. G. Werner, a Scotch mineralogist.) Here is another early pioneer work in its field.
Des couleurs et de leurs applications aux arts industriels à l'aide des cercles chromatiques, M. Chevreul, 1864, J. B. Ballière, Paris. This is a magnificent work, 11 x 14. It contains a beautiful fold-out spectrum, a color circle of continuous tones, both of which were remarkable lithographic reproductions for their time. Eight plates, each with 60 steps, scale spectral colors from purity to blackness. Further, 12 color scales show value steps of principal hues.

A Nomenclature of Colors for Naturalists and Compendium of Useful Knowledge for Ornithologists, Robert Ridgway, 1886, Little, Brown & Co., Boston. This is a rare and highly significant key work. It preceded Ridgway's later and well-known presentation of 1912 by some 26 years. A total of 190 colors were hand-applied to ten 5½ x 8½ plates. Color names were given in English, Latin, German, French, Spanish, Italian and Norwegian-Danish. Ridgway was Curator, Department of Birds for the United States National Museum. He referred to Werner's Nomenclature.

Répertoire chromatique, Charles Lacouture, 1890, Gauthier-Villars, Paris. Contains a series of 28 beautiful color plates 9¾ x 12, based on some 1300 optical mixtures. Different tones were accomplished through the use of fine lines - a new device at the time.

Répertoire de Couleurs, Société Française des Chrysanthémistes, 1905. An important and famous system for the color identification in horticulture. Contains over 1400 printed colors in two volumes, 6½ x 10. Widely used for the identification of colors in flowers, foliage, fruit, etc.

The Mastery of Color, Charles Julius Jorgensen, 1906, published by author, Milwaukee. An interesting work, 7 x 9. Has 22 thick die-cut plates with air-brushed gradations. All colors are named. There is a separate booklet of text of 83 pages. Designed as a "Simple and Perfect Color System... for Educational Purposes."

Color Standards and Color Nomenclature, Robert Ridgway, published by the author, 1912, Washington, D. C. (See earlier edition, A Nomenclature of Colors for Naturalists, 1886.) Ridgway's work was highly important in scientific circles and has become a classic in the field of color notation. It is 5¾ x 8¾ in size and has 53 plates with 950 samples of coated paper. All colors are named.


British Traditional Colours, British Colour Council, 1937, London. Published for the coronation of King George VI and Queen Elizabeth. Dyed samples of heraldic colors. standards for the Union flag, robes, knighthood ribbons, tartan colors, standards for the army, navy and air force are contained in a 9¾ x 11¼ volume.


Standard Color Card of America, originally issued by the Textile Color Card Association of the U. S. in 1941, 6 x 10. On 18 hinged charts 216 colors in dyed satin are presented. This has long been one of the most widely used sources of reference, both for colors and names, by the U. S. Government and American textile industry. (A new edition has been released by The Color Association of the U. S., New York, 1980.)

Horticultural Colour Charts, British Colour Council with Royal Horticultural Society, 1942, London. Two volumes, 7 x 10, with 800 printed color samples. For color identification in horticulture. (Identical to Wilson Colour Charts, 1938.)

Munsell Book of Color, Munsell Color Company, 1942, Baltimore. This is a small, two-volume edition, ¾ x 6¼, with 41 plates. The colors included are based on the 1929 abridged edition. It represents an early historical Munsell work.

Schneizer Farbenatlas (Swiss Color Atlas), Dr. Aemilien Muller, 1945, Winthur. A large handsome volume, 13 x 13, with 24 charts holding over 1,000 samples of dyed paper in small envelopes. Follows principles of Wilhelm Ostwald.

Plouchere, Color and Color Names, Los Angeles, 1946. A large and impressive book of color standards, to be used for identification purposes and for color names. Contains 64 charts, 10 x 12¼, having 1536 mounted chips.


Color Harmony Manual, by Egbert Jacobson, Walter C. Granville and Carl E. Foss, 1948, Container Corporation of America, Chicago. This is a third edition: loose leaf, 11 x 17, boxed, with about 900 removable chips. Included is descriptive color names dictionary edited by Helen D. Taylor, Lucille Knoche and Walter C. Granville, 1950. (Later editions of the Manual were issued.)


Dictionary of Color, A. Maerz & M. Rea Paul, McGraw-Hill Book Co., New York, 1950. A bound volume, 8½ x 11¼, containing 7,000 samples of printed color, with color names based on historical origins and current usage. (Later editions have been published.)


Farbenordnung Hickethier, 1952, Verlag H. Osterwald, Hannover. This is a beautiful book, 8 x 9¾. Hickethier, a color printer, developed an unusual and worthy system of color organization. This work is replete with excellent color plates.
and color charts which exhibit some 999 different color variations.

Hesselgren's Colour-Atlas, 1953, Stockholm, Sweden. System consists of Atlas, 9 x 7, having 507 small samples on 26 charts. Extra samples of the colors, 2 x 4, are in two separate boxes, 4 x 8½. A well devised general color order system.

Colorizer Paint System, 1955. Developed by Faber Birren for group of American paint companies known as Colorizer Associates. Large vinyl-covered album, 15 x 15 inches, has a total of 1812 individually coated chips mounted on removable strips. There are 51 separate charts. Includes Color Harmony Selector. System was used nationally in the sale of paint. (Also see Colorizer Systems developed by Faber Birren in 1970 and 1980.)

ISCC-NBS Method of Designating Colors and a Dictionary of Color Names, National Bureau of Standards Circular 553, Washington, D. C. 1955. This important book, 8 x 10, established a system for the naming of colors. Simple color names are included using the Munsell system. There are cross references to colors derived from a number of color order systems, such as Ridgway, Maerz and Paul, Plochere, etc. Later edition dated 1976.

RAL Farbregister 840 R, 1955, Muster-Schmidt, Gottingen. A German system of color for purposes of standardization and identification. Contains 94 standards on 5½ x 8¼ cards. (Later editions are available.)

Scandinavian Colour Book, 1956, Nordisk Textile Unions, Copenhagen. Three striking loose-leaf volumes contain 1,728 samples of dyed felt in systematic order. Boxed, 7½ x 9½. One of the most attractive systems ever made.

Psalzenfarben-Atlas, Prof. Dr. E. Biesolski, 1957, Muster-schmidt-Verlag, Gottingen. An interesting series of color charts, 5 x 8, with 375 mounted chips. Designed for the notation of flower colors.

The Friel System, A Language of Color, Edward Friel, 1961, privately printed, Seattle, 79 pages, 8½ x 11. Has color plates and discusses relationships of existing colorants (pigments, dyes) and orderly color organization.

Reihold Color Atlas, A. Kornerup & J. H. Wanscher, 1961, Reihold Publishing Co., New York. This is a small and unique book of color standards, 224 pages, 4½ x 6½ inches, with 30 double-spread charts showing (and naming) 1440 printed color samples. Its purpose is to provide a source of standards for matching, naming and identification of color. (See Methuen Handbook of Color which repeats the Reihold version, 1978.)

Colors for Interiors, Historical and Modern, Faber Birren, 1963, Whitney Library of Design, New York. A book of 210 pages, 8 x 10, includes 16 charts having 248 mounted chips. Charts present ancient and period colors: Egypt, Greece, Rome, the Renaissance; French and English period colors; American period colors; Victorian, suggested colors for schools, hospitals, factories, offices, stores, food service. All chips are named.

Plochere Color System, 1965, Los Angeles. This system consists of a boxed set of 1248 colored cards, 3 x 5. It has been successfully used over the years and holds considerable reputation as an American color system.

Advanced Ink Mixing System (AIMS), 1968, Danish Paint and Ink Research Laboratory, Copenhagen. Six plates, 8½ x 11½, show 1200 color variations based on an ink mixing system. Also used for color description and identification. Foreword is in several languages. Devised by Andreas Kornerup (see Reihold Color Atlas and Methuen Handbook of Colour).

Federal Standard No. 595a, Colors, 1968 edition. Some 26 charts, 8 x 10½, have 437 coated and mounted samples of color in gloss, semi-gloss and lusterless finish. (3 x 5 samples are also available.) The colors are those officially recognized by all branches of the U. S. Government and are to be used as standards by suppliers of colored materials. Issued by Federal Supply Service, Washington, D. C.

Color Mixing by Numbers, Alfred Hickethier, 1970, Van Nostrand Reinhold, New York, 54 pages, 8½ x 8½. This is an abbreviated edition of Hickethier's commendable color order system. Has 384 die-cut color chips which may be pasted on charts for color training. There is a good review of historic color solids.

Colorizer Paint System, Totalcolor Concept. Developed by Faber Birren in 1970 for group of American paint companies. Large vinyl-covered album, 15½ x 17 inches, has a total of 1740 individually coated chips mounted on removable strips. There are 58 separate charts. System was used nationally to sell paint. (See also Colorizer Systems developed by Faber Birren in 1955 and 1980.)

JIS Color Code for Investigation, 1971, Japan Color Research Institute. A Japanese system for color identification and naming. Included are 28 charts, 9 x 11¾ inches, 2 fold-out charts, a set of bound black and white charts, plus a descriptive booklet devoted to color names. Mounted chips are 600 in number, and all is contained in a cloth-covered box and slip case.


Chart System of Color Names, 1974, Japan Color Research Institute. On 3 large charts which unfold to 14 x 20 inches, 286 mounted color chips are identified with common color names. An accompanying 32 page booklet, 9 x 12 inches, refers to other color-naming systems and identifies the colors on the large charts in terms of them.


Manual of Color Names, 1974, Japan Color Research Institute. A large volume, loose-leaf metal bound, 9 x 11½ inches. Using a color circle of 24 hues the work is then, with separate charts, employed to identify and name (in Japanese and English) some 400 different chips of color tones. There are references and black and white sketches of flowers, birds, fish, vegetables, coral, fruit, berries. This would be an extremely practical reference for anyone endeavoring to associate different colors with common names. (The equivalent in the United States would be the ISCC-NBS Method of Designating Colors which does not include color chips.)

Uniform Color Scales of the Optical Society of America,
1974. This is a very famous and authoritative collection of 552 colors, each 2 inches square, held in individual clear plastic pockets on 30 charts, 8½ x 11 inches, with all contained in a loose-leaf binder. With the loose chips, six entirely different color scales can be arranged. In all cases equal color differences will be noted. Binder includes various reprints of articles related to the scales, a history of their development, colorimetric data, etc. Value at time of issuance, $350.00.

Color Data Manual, 1975, Japan Color Research Institute. This is an impressive undertaking. Some 91 loose charts, 8½ x 12 inches, neatly boxed and held in a slip case, include color chips and word identifications, mostly in Japanese but some in English. Practical use would require a knowledge of the Japanese language.

Color System, 1975, Japan Color Research Institute. A handsome, plastic bound portfolio, 10 x 10 inches. Made for color education in Japan. While text is in Japanese, color identifications and names are also in English. Reviews color order systems of Lambert, Runge, Chevreul, Von Bezold, Helmholtz, Rood, Hefler, Munsell, Ostwald and others. A series of 21 exquisite charts containing over 1,000 color chips, illustrate three major color systems: P.C.C.S. (Practical Color Co-ordinate System), Munsell and Ostwald — a feature that is quite unusual in one volume.

Harmonic Color Charts, 1975, Japan Color Research Institutes. This is a digest of the Japanese P.C.C.S. (Practical Color Co-ordinate System) and is meant for educational purposes. Included are a large fold-out chart, 11½ x 40 inches on which about 100 chips of colors are mounted; duplicates of these 100 colors, 1-3/8 x 2-3/8 inches, are filed loose in a separate folder having plastic pockets; plus 2 descriptive booklets. Use of the charts would require a knowledge of the Japanese language.

Chroma Cosmos 5000, 1978. An elaborate color system issued by the Japan Color Research Institute of Tokyo. This is one of the most beautiful and complete color systems ever issued anywhere. Contains 5000 individually coated and individually mounted color chips on 23 charts, with a 24th volume devoted to an explanation. Charts measure 10½ x 14¼ inches folded and have vinyl covers. All are contained in a blue cloth-covered box. All 5000 chips are identified in terms of the Munsell Color System and have further designations to agree with the Inter-Society Color Council-National Bureau of Standards (ISCC-NBS) Method of Color Designation. Value at time of issuance, $1,500.00. Box also includes review by Faber Birren in Fall, 1979 issue of Color Research and Application.


Methuen Handbook of Colour, by A. Kornerup & J. H. Wanscher, Eyre Methuen, 1978, London (third edition), 4½ x 6½. This is a British adaptation and duplication of the original Kornerup-Wanscher work. It introduces names used by British paint manufacturers, printing ink colors and is otherwise well recognized by British organizations concerned with color. (See Reinhold Color Atlas, 1961.)

Color Source Book, Margaret Walch, 1979, Charles Scribner’s Sons, New York. This is an attractive work 8½ x 11. It contains a series of 48 charts with 103 mounted color chips meant to show actual samples of historic and period colors, textile and pottery colors, the palettes of famous artists, etc.


Colorizer Paint System, Colorizer Plus. Developed by Faber Birren, 1980, for group of American paint companies. Large vinyl-covered album, 14½ x 20 inches, has a total of 988 individually coated chips mounted on removable strips, all with names. There are 27 separate charts. (See also Colorizer Systems developed by Faber Birren in 1955 and 1970.)

(Note. There obviously are other color systems and color standards not in the Birren Collection. New material is added when available. There are more recent editions of Munsell, for example. The well known Pantone System of America is not represented, nor is the Natural Colour System of the Swedish Colour Center, Stockholm.)

The Faber Birren Collection of Books on Color is at the Art and Architecture Library, Yale University, Chapel and York Streets, New Haven, Connecticut.

COLOR SYSTEMS AND COLOR STANDARDS

Faber Birren has released an annotated list of color systems and color standards which are in the Faber Birren Collection of Books on Color at the Art and Architecture Library, Yale University in New Haven, Connecticut. These are 54 in number and have been collected over a period of many years.

There are historic items such as the first Robert Ridgway collection of colors for naturalists, 1886, the second Ridgway of 1912; Werner’s Nomenclature of 1814; Chevreul of France, 1864; plus color systems and standards from England, Germany, Switzerland, Sweden, Denmark, Japan, Argentina.

The list will be forwarded to anyone interested. Address: Faber Birren, 184 Bedford Street, Stamford, Conn. 06901.

LETTER TO THE EDITOR

The Brazilian School of Arts, located in Porto Alegre, the Capital of the State of Rio Grande do Sul, Brazil, is the center of study and research in color in Brazil and in South America as well.

Through its Department of Psychodynamics of Color it offers courses and carry out research dealing with color and its use in different environments such as houses, commerce, industry, health care institutions, schools, in advertising, marketing, etc., including the influence of colored lights on human behavior.

The School collaborates with schools and universities all over Brazil giving orientation to teachers and interested people, and teaching specific courses in Color, and the use of illumination and colored lights.

A research work has just been concluded at the School on the subject of colored shadows. It has proved that shadow is not lack of light, but a mixture of cyan, yellow, and magenta.

An yearly National Seminar on Colors in Hospitals is held at the School for people working in health care institutions, students of architecture, design, decoration, color, etc. all over the country.

In the 1979 Seminar two groups of students presented reports of research carried out during the year. One group composed of Luiza Maria H. Barcelos, Katya Ima Kaiser, and
Anabela Schalch Leal, presented their report on Color in Pediatrics. The second group, reported on Color in Intensive Care Units. Both papers involved visits to hospitals interviews with doctors, nurses, administrators, architects, and people working directly with patients. They were of very high quality and raised great interest among attendees.

Architect Simão Goldman is the Director of the School and the most important expert in color in Brazil. He is the author of "Psychodynamics of Colors" (5th edition), and 8 other works dealing with color. He is the key person in Brazil in the area of colors, and the man responsible for the teaching and carrying out of research in this field. He introduced the teaching of color in universities in Brazil.

The Brazilian School of Arts, active since 1979 – to which the Brazilian color Institute (BRASCOR) is connected – proposes hereafter an exchange of information and papers related to the subject of color with all those interest in collaborating with it.

Sincerely yours,
Olga Marli De Mello Paz
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Rua Mathias Jose Bins. 530
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Porto Alegre - RS
Brasil

COLOR SCIENCE ASSOCIATION OF JAPAN

The following are the officers of the Color Science Association of Japan for 1980-1982.

President — Prof. Tamotsu Fukuda, Ohtsuma Women’s University.
Vice-President — Prof. Yasuo Ohta, Tokyo Medical College.
Prof. Hiroshi Nakamura, Nagoya Institute of Technology.
Mr. Shuji Kojima, Osaka Branch of Japan Color Research Institute.

Reserved for contributions from ISCC Member-Bodies.
CALENDAR

ISCC Annual Meetings
1981: April 27-28 - Roosevelt Hotel, NY

Williamsburg Conferences
1981: February 9-11
1982: February 7-10
1983: February 6-9

Dry Color Manufacturers Association
1981: The Greenbrier, White Sulphur Springs, WV, June 14-17

Federation of Societies for Coatings Technology
1981: Cobo Hall, Detroit, MI, October 28-30

Society of Plastics Engineers, Color and Appearance Division
1981: ANTEC, Boston Sheraton, May 4-7

Gravure Technical Association
1981: Drake Hotel, Chicago, April 7-9

1. Any person interested in color and desirous of participating in the activities of the Council for the furtherance of its aims and purposes ... shall be eligible for individual membership (By-Laws, Article I, Section 2). Application forms for individual membership may be obtained from the Secretary (address given above).

2. The Council re-affirms its community of interest and 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.

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