

INTER-SOCIETY COLOR COUNCIL

NEWS LETTER

NUMBER 191

November-December 1967

1968 ANNUAL MEETING

ISCC's 1968 Annual Meeting, on April 8th and 9th at New York's Statler-Hilton, will focus on the new excitement of color in commerce and the arts. "Odd-ball" balance will be struck between a sound marketing forum and a presentation of the sights and sounds of the newest art media.

The forum on Monday, April 8th, will be under the direction of Midge Wilson, chairman of the delegation from The Color Association of the United States, Inc. This panel, plus open discussion on designing and merchandising, will explore "our changing world of color; how the new environment affects designing; trends; merchandising and the consumer."

Advance information on Tuesday's symposium and banquet is alarming: Karl Fink, chairman of the delegation from the Package Designers' Council and 1968 program chairman, may be putting us on -- but he talks of fire, lumia, kinetism, total environment, light, multi-media, and voom. Although he reassures us that there will be a conventional banquet, it will pursue a most unconventional course. And earlier that day, there will be an E.A.T.-in (whatever that is). We do have the ISCC Board's assurance, however, that while Karl's program plans are excitingly unconventional, they are based on "sound" research. The program will feature the new creative breed which attempts to harness natural and technological phenomena for aesthetic and sensual experience. Detailed information will be available soon.

On Monday evening there will be a reception to honor the new Honorary Members, and on Tuesday morning, Dorothy Nickerson will present a history of the Council to highlight the institution of this new class of membership. Because of the special events, the subcommittee meetings will be held only on Monday morning, and the business meeting will be limited to about a half hour on Tuesday morning.

The tentative schedule of events is as follows:

Monday. 9:30 - 12:00 noon: Meetings of subcommittees for the indicated problems. (All those interested should feel free to attend.)

Problem 16. Standard Methods for Mounting Textile Samples for Colorimetric Measurements. W. L. Matthews, Jr., chairman.

Problem 22. Procedures and Material Standards for Accurate Color Measurement. Fred W. Billmeyer, Jr., chairman.

Problem 24. Catalog of Color Measuring Instruments. Ruth Johnston, chairman.

Problem 25. Determination of the Strength of Colorants. Charles G. Leete, chairman.

Problem 27. Metamerism Index. Isadore Nimeroff, chairman.

Problem 30. Color in the Building Industry. Milo Folley, chairman.

Noon: Luncheon for voting delegates and officers.

2:00 - 4:30 p.m.: Open forum on designing and merchandising, Midge Wilson, chairman.

5:30 - 7:00 p.m.: Reception in honor of new Honorary Members.

Tuesday. Morning: Annual business meeting.
A History of the ISCC, by Dorothy Nickerson.

Afternoon: "Creativity in Color." Karl Fink, chairman.

Evening: Banquet.

ELECTIONS Early in 1968 voting delegates will elect four officers and four directors of the Inter-Society Color Council. Three of the delegates from each of the 29 member bodies are eligible to vote. Ballots will be mailed from the Secretary's office to voting delegates. The Board decided to publish biographical material about the candidates so that voting delegates and other Council members could know more about the candidates.

For President

FRED W. BILLMEYER, JR.
Professor of Analytical Chemistry
Rensselaer Polytechnic Institute
Troy, New York 12309

Member

American Chemical Society
American Physical Society
Optical Society of America
Society of Plastics Engineers

Council Status

Chairman of Subcommittee for Problem 22: Procedures
and Material Standards for Accurate Color Measurement
Voting Delegate from the Society of Plastics Engineers
President-Elect, Inter-Society Color Council

For President-Elect

RANDALL M. HANES
Principal Staff, Applied Physics Laboratory
The Johns Hopkins University
Silver Spring, Maryland 20910

Member

American Association for the Advancement of Science
American Psychological Association

Council Status

Chairman of Subcommittee for Problem 20: Basic
Elements of Color Education
Voting Delegate from the American Psychological
Association
Editor, Inter-Society Color Council NEWS LETTER

For Secretary

RALPH M. EVANS, Director
Photographic Technology Division
Eastman Kodak Company
Rochester, New York 14650

Member

Illuminating Engineering Society
Optical Society of America
Photographic Society of America
Society of Motion Picture and Television Engineers
Society of Photographic Scientists and Engineers

Council Status

Secretary, Inter-Society Color Council
Chairman of the Delegation from the Society of
Motion Picture and Television Engineers

For Treasurer

NORMAN MACBETH, Chairman of the Board
Kollmorgen Corporation
Holyoke, Massachusetts

Member

Illuminating Engineering Society
Optical Society of America
Society of Motion Picture and Television Engineers

Council Status

Treasurer, Inter-Society Color Council
Chairman of the Delegation from the Illuminating
Engineering Society

For Directors

KARL FINK
Karl Fink and Associates
515 Madison Avenue
New York, New York 10022

Member

American Institute of Graphic Arts
Package Designers Council

Council Status

Chairman of the Delegation from the Package
Designers Council

W. N. HALE
Manager, Technical Services, R and D
Munsell Color Company, Inc.
Baltimore, Maryland 21218

Member

American Association of Textile Chemists and Colorists
American Society for Testing and Materials
Illuminating Engineering Society
Society of Plastics Engineers
Society of Motion Picture and Television Engineers

Council Status

Voting Delegate from the Society of Plastics Engineers

JACK HANLON
General Manager, Technical Research and Service Department
Research and Development Division
Mohasco Industries, Inc.
Amsterdam, New York 12010

Member

American Association of Textile Chemists and Colorists

Council Status

Voting Delegate from the American Association of Textile
Chemists and Colorists

GUNTER WYSZECKI

Head of Radiation Optics Section
National Research Council of Canada
Ottawa, Canada

Member

Illuminating Engineering Society
Optical Society of America

Council Status

Voting Delegate from Illuminating Engineering Society

NOTE: In accordance with Article V of the By-Laws, the President-Elect shall succeed to the office of President at the expiration of the term of office of the President. In accordance with Article VI the Board of Directors shall consist of the four officers ex-officio, four directors to be elected and the retiring President.

A COLOR CENTER

The Inter-Society Color Council, from its inception in 1931, always has considered the fostering of color education as its most important objective. The evidence of this interest is shown in the ISCC News Letter, the other publications of the Council, and the support of color-education-oriented symposia. What perhaps is less evident to the friends of the Council are the many years of deliberation by the members of the various Boards of Directors exploring methods of achieving education objectives within the framework of the organization of the Council. The officers have been increasingly concerned with the preservation of scientific and artistic objects and publications dealing with color. They desired to encourage the use of this material by students and industrial personnel interested in color and design.

It was during an exhibition, "The Logic and Magic of Color," sponsored by the Cooper Union Museum for the Arts of Decoration with the purpose of celebrating the centennial anniversary of the Cooper Union for the Advancement of Science and Art, 20th April - 31st August, 1960, that the idea of a "Color Center" for the color education of students, teachers, industry, and the general public was seriously considered. In the years of subsequent discussion, the need for such a "Color Center" has been increasingly apparent, culminating in a decision by the present Board of Directors that the Cooper Union Museum for the Arts of Decoration should be a repository for its collection of historic color-oriented material, that the members of the Council should be encouraged to make legal provision for bequeathing their individual collections to the Museum, and that the "Color Center" be a vital educational organization with the necessary staff and display area for housing artifacts, educational exhibits, visual aids, and instruments for permanent viewing and for loan.

Christian Rohlfing, administrator of the Museum has accepted this proposal. The Inter-Society Color Council, through its Board of Directors, has authorized its secretary to transfer historic color educational material in its files to

the Museum. It is appropriate to note that the Smithsonian Institution, on October 9, 1967, with the signing of an agreement with the Board of Trustees of Cooper Union, expressed its intention to assume responsibility for the Cooper Union Museum for the Arts of Decoration. After a hearing by the Supreme Court of the State of New York, necessary for the transfer of property in the public interest, the administration of the Museum will pass to the Smithsonian Institution. It is expected that within a few years the Museum will be in a new home, the Fifth Avenue Mansion built by Andrew Carnegie in 1900 on a block-long site between 90th and 91st Streets in New York City.

W. J. Kiernan

CMG HONORS CALL,
DIMMICK, AND KELLY

At the Fall 1967 meeting of the Color Marketing Group (see N.L. #190) three ISCC members were especially honored. The Board of CMG announced the establishment of the Forrest L. Dimmick Communications Award. CMG's first Life Membership Award was presented to Kenneth L. Kelly "for his contribution to the scientific application of color in marketing and for explication of the achievement possible through cooperation between government and private industry." A special award ("three colorful vessels of Wallace Colorclad silver") was given to Everett R. Call "in colorful appreciation from the Color Marketing Group on its fifth anniversary."

EUGENE ALLEN APPOINTED
PROFESSOR AT LEHIGH

Dr. Eugene Allen, delegate from the AATCC, has been appointed Research Professor of Chemistry at Lehigh University, Bethlehem, Pa. In his new position he will study the printing process, with particular emphasis on color and colorant formulations, and will also teach a course in colorimetry.

Formerly a research fellow at American Cyanamid Co., Dr. Allen was primarily responsible for Cyanamid's computer color-matching process. He has published numerous papers on colorimetry, spectrophotometry, and optics and is currently the chairman of AATCC's Color Technology Committee and of ISCC's Subcommittee for Problem 18, Colorimetry of Fluorescent Materials.

C. J. BARTLESON
JOINS MACBETH

C. J. Bartleson has joined Macbeth Corporation in Newburgh, New York, as Vice-President and Director of Research. Previously, he was in charge of research on visual psychophysics in the Research Laboratories of the Eastman Kodak Company in Rochester, New York.

Bartleson has worked with the phenomena of color, its reproduction and perception, for nearly twenty years. In addition to conducting and directing original research in vision, perception, and color science, he has been involved in the application of fundamental research in broad areas of technology, including photographic and photomechanical reproduction, colorimetry, radiography, illumination, display and visual aids, television, information display, and physiological optics.

A veteran international lecturer, Bartleson also has had the results of his research published in a wide variety of technical journals. He has authored two books on color and has another book currently in preparation.

Among the organizations in which Bartleson is currently active are The American Association for the Advancement of Science, American Institute of Physics, Optical Society of America, The Colour Group (Great Britain), and the Society of Photographic Scientists and Engineers. He is a voting delegate of SPSE to the Inter-Society Color Council, the United States of America Standards Institute, and is the United States Expert to the International Standards Organization's TC42/Y65 committee.

Bartleson assumed his new duties with Macbeth in Newburgh, New York, on November 1st.

**ALBERT DERR MOVES TO
THE FRANKLIN INSTITUTE**

Albert J. Derr, chairman of the delegation from the Society of Photographic Scientists and Engineers, has joined the staff of The Franklin Institute Research Laboratories as a Principal Engineer in the Electrical Engineering Department.

Mr. Derr will work initially in the areas of photo-optical and photometric instrumentation, enlarging existing programs and helping to develop new ones.

Before going to The Franklin Institute Mr. Derr was Manager of the Physics Research Laboratory of the Ansco Photo Products, General Aniline and Film Corporation, Binghamton. There he specialized in photographic and photo-optical instrumentation and contributed to the development of the company's microdensitometers.

Mr. Derr has published 18 papers in diverse areas of photographic science. He also has several patents issued or pending.

**WALDRON FAULKNER
RETIRES**

The architectural firm of Faulkner, Stenhouse, Fryer and Faulkner has announced the retirement from active practice of Waldron Faulkner, chairman of the delegation from the American Institute of Architects and former president of the ISCC. Mr. Faulkner's distinguished career was described briefly in a recent (#187) issue of the N.L. ISCC wishes him, in retirement, the same full measure of success that he enjoyed in his professional career.

Mr. Faulkner will serve henceforth as consultant to the firm, which will be known as Faulkner, Fryer and Vanderpool.

**KOLLMORGEN--MACBETH--DAVIDSON
and HEMMENDINGER COMBINE**

Richard Rachals, President of Kollmorgen Corporation, and Norman Macbeth, Chairman and President of Macbeth Corporation, have announced that the Boards of Directors of both companies met on June 9, 1967 and have agreed, in principle, to a combination of the two companies. Both companies have been in business for over fifty years and are manufacturers of electronic, optical, and scientific instruments and products.

Under the agreement, Macbeth Corporation, together with its domestic and foreign subsidiaries, will be a wholly-owned subsidiary of Kollmorgen Corporation, and Norman Macbeth, well-known to ISCC members as Treasurer since 1940, will be Chairman of the Kollmorgen Board of Directors. Warren Reese, a delegate to the ISCC from the Society of Motion Picture and Television Engineers, will be the President and Chief Executive Officer of Macbeth Corporation and its subsidiaries.

The principal products of Kollmorgen are electro-optical instruments, electromagnetic and electronic components for servo systems, and instrumentation for the measurement and control of color. Macbeth Corporation produces densitometers used in the photographic and graphic arts industries, and scientific lighting equipment, used extensively in all industrial color matching. Macbeth also is the exclusive agent in the United States for Osram Zenon lamps.

On December 1, 1967, Rachals and Macbeth announced jointly with Hugh Davidson and Henry Hemmendinger, the principal shareholders and chief officers of Davidson & Hemmendinger, Inc. (D & H) of Easton, Pa., that they have agreed in principle to a combination of Kollmorgen and D & H. Under the agreement Davidson & Hemmendinger, Inc., together with their foreign subsidiaries, will become a wholly-owned subsidiary of Kollmorgen Corporation.

Davidson & Hemmendinger have been in business for over 12 years, specializing in color standards for industry, design and manufacture of special purpose analogue and digital computers for color formulation and control, and educational programs for industry in color physics and the use of instrumental color control. Special purpose digital computer and memory systems are also produced for other applications.

Hugh Davidson is a voting delegate to ISCC from the American Association of Textile Chemists and Colorists, and Henry Hemmendinger is an individual member.

AATCC SPONSORS DYEING AND FINISHING COURSE

The American Association of Textile Chemists and Colorists sponsored an advanced dyeing and finishing course last Fall.

In addition to lectures on dyes and dyeing theory, three two-hour lectures on color matching were given by Dr. Roland E. Derby, Jr. One interesting aspect of this lecture series was the first lecture which concerned itself with "The Principles and Practice of Visual Color Matching."

Very few lectures on this topic, if any, have been given for at least twenty-five years.

COLOR MEASUREMENT SEMINAR AT NBS

A seminar dealing with both psychological and physical aspects of color measurement will be held at the National Bureau of Standards laboratory in Gaithersburg, Md. The tentative dates are May 6-8, 1968. Topics to be covered are: psychophysics of color vision, uniform color spaces, color-order systems, spectrophotometry, photodetector responses, photoelectric colorimeters,

automation of colorimetry, metamerism, and variability of color measurement. In addition to lectures and discussions, there will be visits to the NBS colorimetry and spectrophotometry laboratories.

Attendance will be limited to 50 persons, selected on the basis of academic qualifications and experience. Candidates must have undergraduate college-level training in physics, chemistry, engineering, or psychology and be involved in experimental colorimetry or spectrophotometry, either in a direct or a supervisory capacity. Prior to the seminar, selected candidates will be furnished with a list of references and copies of selected articles.

The charge for the seminar will be \$100. Interested individuals should apply to I. Nimeroff, Metrology Div., NBS, Washington, D. C. 20234.

**SYMPOSIUM ON COLOR
MEASUREMENT FOR THE
GRAPHIC ARTS**

New York University, in cooperation with the Inter-Society Color Council, presents a symposium on "Color Measurement for the Graphic Arts."

The time is Monday, March 18, 1968, 9 A.M. - 5

P.M. The place: Hotel Commodore, Lexington Ave. at 42nd St., New York, N. Y. For further information please contact: Mr. Richard Fiske Shaffer, New York University, School of Engineering and Science, Dept. of Chemical Engineering, University Heights, New York, N. Y. 10453. Phone: (212) 584-0700-388.

This symposium is a project of the New York State Technical Services Program administered by the New York State Dept. of Commerce. The color measurement project is supported, in part, by state and federal funds under the authority of the State Technical Services Act of 1965, administered nationally by the Office of State Technical Services, U. S. Dept. of Commerce, Washington, D. C.

INTERFARBE '68

In 1966, the Executive Board of the Varnishes and Paints Industry in the Chemical Technology Trade Association of the Chamber of Technology and the VVB Lacke und Farben (Association of Nationally-Owned Enterprises of the Varnishes and Paints Industry) jointly organized the International Conference on Colours "INTERFARBE '66" in Dresden. In view of the general interest the organizers decided to arrange another conference in 1968.

The INTERFARBE '68 takes place from 21 to 23 May 1968 at the Deutsches Hygiene-Museum in Dresden. The topics again include color measuring, color physiology, application of colors, colors in art and education. Languages of the conference will be German, Russian, English.

Several special exhibitions will provide a further enrichment of the program.

Early in 1968 the provisional program will be announced in a second bulletin. Subsequent information will be forwarded in the German language only.

The address of the Secretariat of INTERFARBE '68:

Institut für Lacke und Farben
Arbeitsgruppe Farbgebung
Wilhelm-Pieck-Strasse 116
8122 Radebeul, E. Germany

THE COLOUR COUNCIL
OF CANADA

Colour Comments reports a very successful November meeting on the subject: "Growing a Rainbow under Artificial Light." The speaker was Harry R.

Nellis, who has conducted research for many years on the growth of plants under colored illuminants. Some 120 colored slides were used for illustration.

A very timely subject was chosen for the December meeting: "Colour Creation of Carswell's Christmas Cards." Professor W. E. Carswell, of the University of Toronto (and an individual member of ISCC), provided a demonstration on how to produce Christmas cards that look almost like water colors.

The subject for the January meeting will be "Colour Vision and Colour Vision Testing." Professors C. W. Bobler and E. M. Woodruff of the University of Waterloo will be the speakers.

THE COLOUR GROUP
(GREAT BRITAIN)

The Forty-Sixth Science Meeting (the second of the 1967-68 season) was held on Nov. 8 at the Imperial College of Science and Technology. Two speakers

discussed phosphors, Dr. P. W. Ranby described the general characteristics of these materials, with special reference to the color of the light emitted and the part this plays in the selection of phosphors for any particular application. Mr. R. C. Marshman discussed the use of phosphors in postal sorting.

The Forty-Seventh Science Meeting, on Dec. 6, was concerned with food colors. Mr. H. J. Charie and Dr. F. W. Wood discussed the relative merits of systems currently used for describing colors in the food industry. They also described the interaction of color with other sensory facts and discussed practical details of illumination systems for test panels for food assessment. Mrs. M. H. E. Griffiths reported on the changes undergone by color during the processing and subsequent storage of foodstuffs. Mr. I. F. Gaunt's subject was "The Toxicity of Food Colours." He gave a resume of the reasons why food colors are needed and an explanation of the present legal standpoint and requirements.

The January 1968 meeting of the Group is to be held at the University of Leeds. Dr. F. Jones will talk on "Colour in Inorganic Molecules" and Dr. G. Hallas on "Colour in Organic Molecules."

The general subject of the February meeting will be "Cosmetics." Dr. T. J. Elliott will talk on "Colour Cosmetics" and a member of the B.B.C. Make-Up Department will talk on "Television Make-Up."

Other items from the Group's newsletter:

A meeting on "Concepts of Apparent Brightness: Designing for What We See," at the Imperial College of Science and Technology on December 7, 1967. Speakers: R. G. Hopkinson and J. A. Lynes.

A one-day conference on "Duplication and Conversion of Colour Transparencies" at the Institute of Printing on March 27, 1968.

A combined lecture and practical course by the Applied Optics Section of Imperial College of Science and Technology, London, under the general title

"The Basic Principles of Colour Reproduction." Dates: January 19, 26; Feb. 2, 9, 16, 23; March 1, 1968.

A residential seminar entitled "Colour and Colour Measurement in Food" in the Food Science Laboratories at Nottingham University, School of Agriculture, in cooperation with the Institute of Food Science and Technology, between 3rd-5th April 1968.

The November 1967 issue of the Journal of the Colour Group contains the third Newton Lecture, delivered by Dr. W. Stiles on April 6, 1967 during a symposium on "Color Measurement in Industry." Dr. Stiles spoke on "Mechanism Concepts in Colour Theory."

(Ed. note. Having just repeated the process of miswriting "colour" for "color," and vice versa, for the nth time +1, I cast one vote for conceding a point to the British by changing the American spelling to "colour." After all, if they are going to relinquish that wonderful monetary system, we ought to make some concession in appreciation. Furthermore, I rather like "colour.")

BOOK REVIEW: Handbuch der Lichttechnischen Literatur (Literaturquellen auf dem Gebiet der Lichttechnik und Farbenlehre einschliesslich der Grenzgebiete) by Joachim Riege with the collaboration of Alfred Kurrek, Institut für Lichttechnik, Technische Universität Berlin, March 1967. pp. VIII plus 402.

A copy of this handbook of literature sources in the field of light technology and color science, including neighboring fields, was handed to me for the authors by Dr. Manfred Richter at the 16th Session of the CIE in Washington, D. C., June 1967. As the authors state in the Foreword: "The growth of literature makes it impossible today to list at all completely the individual publications themselves even in a limited field like that of light technology. Furthermore the different works are scattered throughout many journals, etc. So it becomes important to provide a survey of the existing publications. On this account an attempt will be made to bring together the most important aids to a literature search." These aids consist of citations of 15 bibliographies of bibliographies, of 5 lists of books, of 5 lists of periodicals, of 4 lists of translation journals, of 25 lists of doctoral dissertations, of 99 bibliographies (including the Godlove Bibliography on Color), of 144 abstract journals (including Science Abstracts, Psychological Abstracts, and Dr. Richter's Internationale Bibliographie der Farbenlehre), of 7 periodical literature reviews (including Annual Review of Psychology, Illuminating Engineering Reports of Committee on Progress, and Proceedings of the CIE), of 43 handbooks (including IES Lighting Handbook, Helmholtz Physiological Optics, both the 1896 Edition, and the 1924 Southall translation by the Optical Society of America) of 18 collections of tables, of 11 dictionaries (including the Maerz and Paul Dictionary of Color), of 171 books (including the ISCC Guide to Basic Facts and Concepts by Burnham, Hanes, and Bartleson, the Science of Color by the OSA Committee on Colorimetry, and books by Evans-Hanson-Brewer, Forsythe, Gardner-Sward, Judd, Le Grand, Middleton, Moon, G. E. Müller, Richter, Stiles, Verriest, Walls, Walsh, Wright, and Wyszecki), of 167 articles giving bibliographies of 50 or more titles (including one or more by Boynton, Foss, Granville, Hecht, Hunter, Hurvich, Jameson, Moon, Murray, Newhall, Nickerson,

Stearns, and Troland), of three series of bibliographies listed by author, and finally a description of the Science Citation Index with a list of 31 periodicals covered by it (including Color Engineering and the Journals of five of the member bodies of the ISCC). Use of these aids is facilitated by a 45-page alphabetical list of key words or phrases with a citation by class, page, and number of the various bibliographies within which articles pertaining to each key word may be found. These key words are generated by a systematic subject breakdown of light technology and color science, and the place of the key word in the breakdown is made clear first by listing key words for the more general field, then by listing any correlative key words, and finally by listing key words referring to the more special fields. For example, the key word Farbsinnprüfung (Color-vision testing) is followed by citations of three bibliographies, then by the more general word Farbensehen (Color vision), and finally by the two more special phrases Farbfehlsichtigkeit (Color blindness) and Pseudo-isochromatische Tafeln. Reference to the more general word Farbensehen yields the citation of 21 additional bibliographies; and reference to the more special phrases, that of 17 bibliographies.

One cannot but be impressed by the thoroughness of this detailed appraisal of the bibliographical resources available to the student of light and color. On the other hand, to scan this book is a sobering experience. It makes one realize the impossibility of becoming personally familiar with more than a very restricted portion of the immense literature on light and color, and it makes one feel guilty of having ignored scores of important papers in one's own specialty. Machine storage of information with a practical system of retrieval of material pertinent to ever-narrowing specialties seems to be mandatory for future students of light and color. The subject breakdown given in the Handbuch der Lichttechnischen Literatur will certainly be helpful in the design of future retrieval systems, and the bibliographies cited certainly must contain references to a large fraction of the presently available information that must be stored.

D. B. Judd

BOOK REVIEW

The Rays are not Coloured, by Dr. W. D. Wright, Professor of Applied Optics, Imperial College of Science and Technology, London. Published by Adam Hilger Ltd., London, 1967.

It is unusual for a scientist to be both incisive in his own specialties and broadly humanitarian about the role his specialties play in the general subject. Dr. Wright is preeminently in this category.

This delightful little book of only some 150 pages covers the entire subject of color as we know it, illuminating clearly a little phase here and there throughout the whole expanse.

The title, a quotation from Newton, sets the stage for his scientist point of view on the subject but does not prepare one for his warm consideration and knowledge of the artist. "He is the man of magic who alone can conjure beauty out of burnt sienna, rose madder and ultramarine blue with or without their absorption curves."

A few random quotes will give the flavor.

Thus he considers Newton and butterfly wings in the same chapter, "it seems to me that each rib (of the butterfly) is in itself a kind of 3-dimensional diffraction grating."

A philosophy of color: "My first task....must be to explain what I think I am supposed to be talking about."

Night driving: "If they are aware of the extremely complex visual task they have to undertake they may more readily accept the need for caution."

Television: "My main purpose....is to drive home as forcefully as I can that our stereoscopic vision is a very striking example of data-presentation."

Daltonism: "I would prefer to approach the problem as Dalton had to do, unaware at first that his colour vision differed from that of most other people."

Color Vision Tests: "These plates (Pseudo-isochromatic plates), which we might describe more briefly and happily as confusion charts..."

Texture: "The more we ponder over the beauty of a rose the more insistent becomes the thought that it is the gradients of colour that really count."

Colour for Schools: "First, thought we have to capture their interest."

Colorimetry: "I felt that it would be appropriate to review the developments that have taken place in colorimetry for the last twenty-five years and to look ahead...."

The book is complete with literature references for further reading.

There are few, if any, members of the Council who would not benefit by a reading of this book and many will treasure it as one of their important possessions.

Ralph M. Evans

METHUEN HANDBOOK
OF COLOUR

Methuen & Co., Ltd., has announced the publication of the Second Edition of the Methuen Handbook of Colour, by A. Kornerup and J. H. Wanscher. The publisher's notice follows:

"First published in English in 1963, the Methuen Handbook of Colour remains the only authoritative pocket colour-book at such a low price. It covers the essentials of colour practice and provides a universal ready-reference, not only for students, technicians and artist-craftsmen, but also for the many enthusiasts whose recreations involve colour. The work has proved itself as an invaluable tool wherever the exact identification of colour plays an important part.

"The usefulness of the second edition has been greatly increased by the inclusion of British Standards Institution and Munsell equivalents for the colour dictionary, thus giving the work an international application.

"The colour book is divided into two parts, the Handbook proper and a Colour Dictionary. The Handbook explains the basic facts upon which all systems of colour identification are based, and to help the user of the book a special finder is provided which enables a single colour to be isolated and compared with a sample. The practical use of colour to form harmony and contrast is also discussed. The Dictionary consists of plates of 1,266 colour samples accompanied by descriptive glossaries of colour names with an easy system of cross reference. July 1967, 7 x 5, 224 pages, 50s. Methuen & Co., Ltd., 11 New Fetter Lane, London, EC4."

**WANTED:
BOOK REVIEWERS**

In the July-August 1967 issue of the N.L., the procedure of multiple reviews for a single book was initiated. At the same time, N.L. readers were asked to comment on the desirability of such a practice and to volunteer their services as reviewers. So far, no comments have been received and only one volunteer for general duty has come forth. Thinking positively, your editor has interpreted your silence to betoken approval of the practice and a becoming modesty with respect to your talents as reviewers. Unfortunately, such modesty must be contained if N.L. readers are to benefit from informed opinion based on a diversity of backgrounds. Therefore, I repeat the request for volunteers from all fields of interest to review both recent and forthcoming books on color.

**MUNSELL CONSUMER
COLOR CHARTS**

Several years ago the Munsell Color Co. undertook to design and produce a set of materials for teaching basic color information and its use in clothing and home furnishing instruction given to homemakers by home advisors (county agents) of the Agricultural Extension Service. In this effort Extension was represented by Miss Alice Linn, Washington, D. C., and Mrs. Frances R. Quinn, Berkeley, Calif., Extension Clothing Specialists. Munsell was represented by Nick Hale.

After prototypes were tested in several states a production of 20,000 sets was run to permit more extensive testing, in which a number of states participated. This resulted in some design and text changes, more colors and additional masks. Another production of 20,000 sets was finished in April 1967 and a third, larger production is now underway. The Consumer Color Charts set includes a text and three color charts showing 337 lacquer color chips, along with three different die-cut masks.

Close liaison with Extension has made home ec staff personnel at many colleges familiar with the Consumer Color Charts. They are already being used in a number of colleges in the U. S. and Canada, as well as being featured (in color) in a clothing textbook scheduled for publication soon.

Mrs. Quinn's Dressing by Design course in California was expanded to include these materials and rewritten into five 30-minute television programs, which have been shown on California stations since early in the Summer of 1967. Advance publicity results in viewers being enrolled in the course and sent a packet of printed matter by mail, and many of them take this opportunity to purchase the color charts. The color sessions are planned so that the viewer will learn a great deal about color even when she views them in black and white,

and this is especially true if she has the Consumer Color Charts. The success of this television short course in California has led to the Federal Extension Service making plans to promote the course among the other states.

Munsell hopes that the techniques used in developing the Consumer Color Charts will be applicable to designing similar materials for other areas where basic color education is needed.

ISCC members may obtain further information and single copies of the Consumer Color Charts by request to Munsell Color Co., 2441 N. Calvert St., Baltimore, Md. 21218.

W. N. Hale

**THE COLOR TV
AUDIENCE IN
TRANSITION**

Recent bulletins from the National Broadcasting Co. indicate that the ownership of color TV sets is increasing very rapidly and also changing somewhat with respect to social and economic factors.

Overall increase is indicated by the following summary based on NBC estimates.

<u>Date</u>	<u>Color TV Households</u>	<u>Color Households as % of all TV Households</u>
July 1, 1965	3,510,000	6.5
July 1, 1966	6,780,000	12.3
July 1, 1967	11,270,000	20.2

Further information on color set penetration, by demographic groups, was obtained by NBC from the 1967 Brand Rating Index Report, which furnished data from a study conducted in December 1966. Income was reported as the key factor in color TV ownership. Among the \$10,000-and-over group in December 1966, color penetration was 24.9%; among the \$15,000-and-over group it was 30.6%, more than double the 14.6% level for the total population.

Color set ownership was also above average among high school and college graduates, with penetration being 17.0% and 16.1% respectively for these two groups, and above average in the 35-49 age group.

The NBC bulletin also indicated a trend toward color set ownership by larger households, a tendency for geographic differences to narrow as ownership expands, and a trend toward fastest growth in sales in large metropolitan areas.

**REPRINT ENCLOSED
WITH THIS ISSUE**

"Advances in Instrumentation for Colorant Formulation" by Edward L. Lewis. Color Engineering, Sept.-Oct. 1967, Vol. 5, No. 5, 37-43.

MISCELLANY

On the Magic of Number

"I learned once from a numerologist in New Haven why the prevailing color on the face of the earth is green. Count out from the sun:

the sun is one; Mercury, two; Venus, three; the earth, four. Now count the colors of the rainbow: red is one; orange, two; yellow, three; and green, four. Does it not follow that in the kingdom of the number four the earth must be green? Or does it? If it is not self-evident to you, you are lacking in that fine flavor of number mysticism which stretches all the way from the greatest mathematical genius to the schizoid confusion of symbols with the things symbolized." From: Pythagorean Number Theory and its Implications for Psychology, by Gardner Murphy. American Psychologist, Vol. 2, No. 6, June 1967, 423-431.

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Colorful Cars in 1970s

An AP release in the Newark Sunday News (11/5/67) reports a prediction about car colors by Dr. Peter Bothwell, head of an accident research project in Toronto. Dr. Bothwell predicts vivid colors, designed to make vehicles more visible and thus aid in the reduction of accidents. Fluorescent stripes, gaily-colored noses, and flashy stripes are forecast. Particularly popular are expected to be "the animal skin patterns--snakes, tigers, cougars and cheetahs."

The cougar must have sneaked in under camouflage.

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From the Journal of the Colour Group, Nov. 1967.

"In France, egg yolks must be orange in colour. In this country a mid-yellow is preferred, and in the United States a pale yellow. The flesh of the broiler fowl, however, must be as white as possible here but yellow in the United States."

Is this a matter of difference in color, colour, or couleur?

LIST OF ARTICLES ON COLOR RECEIVED BY NEWS LETTER

"Automotive Color Selection: An Emotional Science" by J. S. McDaniel. Color Engineering, Vol. 5, No. 6, Nov.-Dec. 1967, 34-36.

"Centroids: A Common Color Language" by J. Levine. Printing Magazine/National Lithographer, Vol. 91, No. 7, July 1967, p. 65, 94.

"Color Completes the Design" by Howard Ketcham. Consulting Engineer, Nov. 1967, 1-4.

"The Development of Paint Color Systems in America" by L. P. Hunter. Amer. Paint J., 51, No. 57, 70-74 (July 1967).

"Optimized Equations for MacAdam Color Differences" by Fred W. Billmeyer, Jr., and Rodger Smith. Color Engineering, Vol. 5, No. 6, Nov.-Dec. 1967, 28-29.

"The Pigment Development since 1947" by Dr. Kurt Heinle. Deutsche Farben-Z (in German), 21, No. 8, 398-406 (July 1967).

"Problems of Proper Colorimetry in Paints" by J. Verschuere van Helden.
Chimie des Peintures (in French), 30, No. 6, 229 (June 1967).

"Quantitative Evaluation of Color Induction." Color Engineering, Vol. 5, No. 6, Nov.-Dec. 1967, 30-31.

"Spectrophotometric Color Matching with the Least Squares Technique" by Paul H. McGinnis, Jr. Color Engineering, Vol. 5, No. 6, Nov.-Dec. 1967, 22-27.

"Thinking Ahead for Progress with a Modern Dyestuff Blending System." Color Engineering, Vol. 5, No. 6, Nov.-Dec. 1967, 32-33.

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