M. Balcom

INTER-SOCIETY COLOR COUNCIL
NEWS LETTER

NUMBER 157 January-February 1962

31ST ANNUAL MEETING

The program this year again springs from the wide and deep roots of the ISCC. The variety of work indicated by the Problems Subcommittee meetings Monday and by the program Tuesday ineffectively conceals the common diet of color which nourishes council members.

The 31st Annual Meeting of the Inter-Society Color Council will bring together artists, designers, decorators, engineers, scientists, photographers, architects, psychologists, and many others to discuss one of the most interesting of human experiences, color. The meeting will take place at the Statler Hilton Hotel, New York, N. Y., on Monday and Tuesday, March 12 and 13, 1962.

On Monday, March 12, meetings of the color problems subcommittees will be held. As in other years, members and friends of the council are encouraged to attend this Monday session.

The annual business meeting will be on Tuesday morning, March 13. Tuesday afternoon there will be a symposium, "Lighting for Color." The moderator for the symposium will be Mr. C. L. Crouch, Technical Director of the Illuminating Engineering Society, New York City. The speakers on Tuesday afternoon are:

Mr. Ronald C. Allison The T. Eaton Company Ltd. Toronto, Ontario, Canada	-- "The Psycolorgy in our Luminous Atmosphere"
Miss Dorothy Nickerson Dept. of Agriculture Washington, D. C.	-- "Color Rendering Properties of Common Light Sources and Methods for Rating Them"
Mr. Walter C. Granville Industrial Color Consultant Libertyville, Illinois	-- "Dynamic Metamerism"
Miss Gladys Miller, Editor New Homes Guide Holt, Rinehart & Winston, Inc. New York, New York	-- "Color Clicks On and Off as Light Goes Up and Down"

The banquet speaker Tuesday evening will be Professor Isay Balinkin, University of Cincinnati, Cincinnati, Ohio. Dr. Balinkin will present another of his famous lecture-demonstrations entitled, "Light Interaction with Light, Matter, and Consciousness."

For advance registration blanks, write to Mr. Ralph M. Evans, Secretary.

PROBLEMS COMMITTEE MEETING PROGRAM AND SUMMARIES OF SUBCOMMITTEE ACTIVITIES

It appears that we have now settled into a fine, firm, new ISCC tradition by reserving the full day before our Annual Meeting for meetings of our problem subcommittees. The benefits derived from this experiment during the past two years have been well recognized. The program has certainly stimulated the quality, and degree of interest and participation in problems committee activity. It has encouraged attendance and added vigor to the Annual Meeting program. Most of all it has provided an opportunity for informal forum type discussion and a source of basic information on matters of vital color interest to the membership of the Council - an opportunity to talk with experts in areas of common interest. We are hopefully anticipating that the good word about the fruitfulness of these meetings will bring an even higher level of discussion and productivity to our New York Meeting this year.

Our only real problem has been to schedule these meetings in a way to avoid important conflicts where individuals have a variety of color interests. Conflict, incidentally, is more commonly the rule rather than the exception. The schedule we have listed represents our best compromise. If you are forced to a difficult decision in selection, please keep in mind our intentions were to satisfy a majority.

We are also repeating in this issue of the Newsletter, a brief summary of the objectives, origin, status, and registered membership of each problem subcommittee for which a meeting is scheduled. For more complete details may we suggest that you refer to Issue No. 146 of March 1960, and Issue No. 152 of March 1961. For those who have not previously participated in this phase of the ISCC activity, let me assure you that your presence and participation is welcomed by the Chairmen. These open meetings are not only informative but provide a source of new ideas and points of view to the active working groups. You are urged to make yourself and your area of interest known to the Chairman and to contribute to the discussions.

Monday, March 12, has been designated as Problems Day and problems subcommittee discussions will begin and continue throughout the day (and usually the night on a less formal basis). Meeting room locations and schedules will be posted in the Statler mezzanine foyer. Open meetings of each of the active Problem Subcommittees listed in this Newsletter will be held.

One new feature is added to this year's program. Many delegates are not familiar with procedures required to introduce new problems for ISCC consideration. The schedule, therefore, will provide a time and a place for meeting with the Problems Committee Chairman for the purpose of discussing possible new areas of activity and procedures for handling proposals for Problems Committee consideration.

We will look forward to meeting you there.

R. E. Pike, Chairman
Problems Committee

9:30 a.m. - 4:30 p.m. Subcommittee Meetings

Room	Subcommittee No.	Subject	Time
A	Problem 21	Standard Practice for Visual Examination of Small Color Differences Norman R. Pugh, Chairman	9:30 a.m. - 12:00 p.m.
B	Problems 2 & 23	Color Names Kenneth L. Kelly, Chairman Expression of Historical Color Usage Everett R. Call, Chairman	9:30 a.m. - 4:30 p.m.
A	Problem 22	Material Standards for Colorimetry of Opaque, Translucent, and Transparent Materials Fred W. Billmeyer, Jr., Chairman	2:30 p.m. - 4:30 p.m.
C	Problem 18	Colorimetry of Fluorescent Materials Eugene Allen, Chairman	9:30 a.m. - 12:00 p.m.
D	Problem 10	Color Aptitude Test Forrest L. Dimmick, Chairman	9:30 a.m. - 12:00 p.m.
D	Problem 14	The Colorimetry of Transparent Materials R. C. Stillman, Chairman	2:30 p.m. - 4:30 p.m.
C	Problem 16	Standard Methods for Mounting Textile Samples for Colorimetric Measurement J. R. L. Landry, Chairman	2:30 p.m. - 4:30 p.m.
B	Problem 17	Color in the Building Industry Waldron Faulkner, Chairman	2:30 p.m. - 4:30 p.m.
E	Problem 7	Color Specifications Francis Scofield, Chairman	9:30 a.m. - 12:00 p.m.
E	New Problems	Open meeting for discussion of ideas on new problems and problems procedures. R. E. Pike, Chairman	2:30 p.m. - 4:30 p.m.

STATEMENT FROM REPORT OF EXECUTIVE COMMITTEE, 1944, COVERING ISCC ORGANIZATION AND FUNCTIONS

(Revised 1954)*

From time to time various inquiries on color problems come to the attention of the Council.

Problems germane to a particular society are referred to the delegation chairman of that society. Problems capable of immediate answer or solution by a recognized authority are so referred. Frequently problems have broad aspects which concern many Member-Bodies requiring a coordinated effort for their solution.

Other problems are referred to the chairman of the Problems Committee for consideration. If the chairman of the Committee feels that the problem warrants individual study by a special subcommittee, he recommends appropriate action to the Board of Directors. Usually the chairman of the Problems Committee serves as a committee of one, but this is not necessary. Whenever possible, opportunity is provided the Member-Bodies to comment, through their delegation chairman, on the desirability of establishing the proposed subcommittee. An affirmative vote by the Board of Directors leads to the establishment of the President.

Members of the subcommittee may come from either the membership lists of the Member-Bodies, Individual Member list, or any other competent person chosen by the Chairman of the Subcommittee or suggested by the Board of Directors.

The purpose of the subcommittee is to solve the assigned problem and it is expected that written reports on progress will be made for presentation at the annual meeting. In recent years the Chairman of the Problems Committee presides at the meeting at which the reports of the Problems Committee Subcommittees' reports are presented.

PROBLEM NO. 2 Color Names

Committee Membership:

Kenneth L. Kelly, Chairman
Room 305 East Building
National Bureau of Standards
Washington 25, D. C.

Deane B. Judd
Kenneth L. Kelly
Dorothy Nickerson

This subcommittee was reactivated in 1958 for the purpose of producing prototypes of the centroids of the ISCC-NBS System of Color Names under the chairmanship of Kenneth L. Kelly. This task was completed and hand-made charts were made available to Subcommittee on Problem No. 23 for use in the development of a method in recording data for historical expression of color usage. The Centroid standard papers were also sold to sponsor-participants to cover the cost of their preparation and are presently available in limited supply through the Munsell Color Co. The subcommittee having fulfilled its responsibilities requested discharge at the last Annual Meeting. However, no action has been taken by the Board of Directors on this request (1) because of the continued interest and activity of the committee in the proper application of the charts to the Subcommittee on Problem No. 23 program, and (2) the continued

interest of the Council in the mass production of centroid sets for inclusion in NBS Circular 553, the Color Names Dictionary.

This subcommittee will meet jointly again with the subcommittee on Problem No. 23.

PROBLEM NO. 7 Color Specifications

Committee Membership:

Francis Scofield, Standing Committee Chairman
National Paint, Varnish and Lacquer Association
1500 Rhode Island Avenue, N. W.
Washington, D. C.

After several years of investigation, under the chairmanship of Walter C. Granville, this subcommittee published a report in 1955 providing lists "of current color systems, reflecting and transmitting standards, instruments, specifications, methods of test and color codes intended for public use." This report entitled "Survey of American Color Specifications (1955)" was published first as a technical bulletin of the National Paint, Varnish and Lacquer Association and copies distributed to the ISCC membership with the ISCC Newsletter #120. The report was also reprinted in the October 1956 issue of the Official Digest of the Federation of Paint and Varnish Production Clubs.

Recognizing that the report was issued at the threshold of a period of expanding applications of colorimetry, the Board of Directors reactivated the committee by resolution in June 1958. Mr. Scofield was designated chairman of a standing committee.

The original report is now considered to be quite "out-of-date."

A proposal has been placed before the ISCC Board this year to have the problem subcommittee undertake work to revise the original report to include recent new developments.

The meeting of this subcommittee this year is scheduled for the purpose of attracting individuals interested in color specifications to cooperate and contribute to this important review and revision. A program for action will be developed.

PROBLEM NO. 10 Color Aptitude Test

Committee Membership:

Forrest L. Dimmick, Chairman
U. S. Naval Submarine Base
P. O. Box 400
New London, Connecticut

Carl Foss, Co-Chairman
72 Elm Road
Princeton, New Jersey

Paul Blackmore
Robert Hefner
Douglas Hamly

G. L. Erikson
Miss Hakin
Sidney Newhall
Daniel Smith

The history of Problem 10: The Color Aptitude Test, since its inception in 1940 has been reviewed in some detail in the ISCC Newsletter No. 115. A brief summary appeared in the report of the Problems Committee for 1960. Since 1953 when the present version of the test was put on the market through the cooperation of the Federation of Societies for Paint Technology (FPVPC), activities of the committee have consisted largely in furnishing advice and information about the details of its application.

The test has found wide acceptance and a large portion of the original production of test materials has been distributed. Some time ago Mr. Homer Flynn informed me that over 300 sets had been sold. In 1958-59, it seemed desirable to consider the possibility of developing additional or alternative series of colors that might expand the utility of the test.

The first definite proposal, discussed at the 1959 and 1960 meetings of the committee, is to try to use hue series as well as saturation. It was specifically suggested that such hue series be from the yellow-green and the yellow-red regions. Two pairs of end points were designated, tentatively, and paints formulated for them. Experimental work with the first samples has been in progress and data are now available from which the end points can be located more accurately. It has been necessary to determine with some precision the number of just noticeable differences between the end points.

Mr. Erikson has suggested a third pair of end points in the red-violet region. Discriminations here have been observed to fall off more rapidly with age among paint formulators. It is planned to include these samples as possible additional color test series.

When new end points have been formulated and their perceptible distances determined we hope to have Dan Smith make up the new series. Then we shall need help in evaluating them.

PROBLEM NO. 14 The Colorimetry of Transparent Materials

Committee Membership:

R. C. Stillman, Chairman
The Procter & Gamble Company
M. A. & R. Building, Ivorydale
Cincinnati 17, Ohio

G. J. Chamberlin
R. S. Hunter
G. W. Ingle
T. G. Pett
W. B. Reed
Francis Scofield
H. G. Shimp
A. J. Werner

The purpose of this work is to study the colorimetry of transparent color standards in an effort to establish their color characteristics and their inter-relation with each other. During the past several years chromaticity data on the various transparent color systems have been tabulated either directly from the literature through special committee work or by contribution from individuals. All of these data have been collected into a report which should be ready for submission to the Society at the 1962 Annual Meeting. At that time, the future work of the committee will be discussed and a program planned.

PROBLEM NO. 16 Standard Methods for Mounting Textile Samples for Colorimetric Measurement

Committee Membership:

J. L. Richard Landry, Chairman
Davidson and Hemmendinger
2857 Nazareth Road
Easton, Pennsylvania

L. R. Easley
R. S. Hunter
E. Schweizer
L. Graham
R. E. Derby, Jr.
S. Goldwasser
F. J. Rizzo
R. Hoban
R. Jones
W. Matthews

The scope of the committee is to survey the sample characteristics, both mechanical and optical, of the textile materials which might normally be measured with colorimetric equipment, and to set up standard methods for the preparation of specimens for any instrument which may be used. Reports are being prepared on various methods of preparing textiles including:

1. Felt Pad Method
2. Guilotine Method
3. Wiley Mill Method
4. Staple Behind Glass Method
5. Wound Filament Method (on yarn)
6. Random Matt Method
7. Sample Rotation Techniques
8. Solution Techniques

When these reports are complete they will be submitted to the ISCC Board for promulgation. The chairman feels that upon publication of these methods, constructive criticism will be forthcoming from otherwise inarticulate sources. Later on the various methods may be rewritten and republished together.

PROBLEM NO. 17 Color in the Building Industry

Committee Membership:

Waldron Faulkner, Chairman
1710 "H" Street, N. W.
Washington 6, D. C.

Katherine Chandler
Milo D. Folley
W. C. Granville
R. S. Hunter
K. L. Kelly
Dorothy Nickerson
Francis Scofield
Mildred Trimble

When Subcommittee 17 was organized in 1951, it soon recognized the great diversity of color problems found in the vast array of building products available. The color of some of these had been accurately measured and already specified. But the colors of many others were virtually unknown because they had never been measured with any degree of accuracy.

As a guide to future research the subcommittee decided to undertake a pilot study of the color of limestone, a natural material with a limited color range, which can be controlled only by selection at the quarry. After measuring a large collection of samples, the subcommittee suggested the adoption of six standard colors with appropriate tolerances. This report was presented at the Annual Meeting of the Council in 1954.

Later the subcommittee made a study of architectural terra cotta, a manufactured product with a gamut so wide that it can be made in almost any color the consumer desires. In this instance the subcommittee recommended a limited range of standard colors, still making it possible for the manufacturer to produce special colors if he wished to do so.

It was believed that the adoption of standard colors would simplify production, color control and inventory for the producer and would insure ease of duplication and maintenance for the consumer. It also pointed out that producers of the same product could compete if they adopted industry-wide color standards.

However, at some of the recent meetings of the subcommittee the opposite view has been expressed by those who feel that the standardization of colors would limit the designer and would hamper the manufacturer. They believe that a common system of identifying the color of building products would be preferable to the adoption of standard colors.

This stimulating question will be discussed at the next meeting. It must be resolved before the subcommittee can determine the direction of its progress in the future.

PROBLEM NO. 18 Colorimetry of Fluorescent Materials

Committee Membership:

Eugene Allen, Chairman
American Cyanamid Company
Bound Brook, New Jersey

J. E. Callen
Seymour Goldwasser
A. C. Hardy
Henry Hemmendinger
C. W. Jerome
D. B. Judd
J. L. R. Landry
Raymond Liss
Norman Macbeth
W. E. K. Middleton
Ailene Morris
Dorothy Nickerson
G. H. Patterson
Alexander Strobl
R. A. Ward

In February 1952, Mr. W. E. K. Middleton proposed to the ISCC Board of Directors that a new problem be considered by the Council: The Colorimetry of Fluorescent Materials. In a memorandum to the Board, he suggested that the study encompass the measurement and specification of energy sources, and procedures for instrumental and noninstrumental measurement of the color of fluorescent materials produced by irradiation by ultraviolet, fluorescent and incandescent lamps, and by a combination of sun and sky. This suggestion was accepted, and Subcommittee No. 18 was organized under the chairmanship of Dr. S. Goldwasser.

At several preliminary meetings, it was decided that the problem of specifying a suitable source of irradiation should take precedence over the problem of color measurement. It was also decided fairly soon that although the original proposal was intended to encompass only colored fluorescent pigments and dyes, fluorescent whitening agents should also be studied because of their great commercial importance. This decision made the choice of a light source even more difficult; since fluorescent whitening agents are excited by ultraviolet radiation alone, it was necessary to find a source which approximated daylight in the ultraviolet region very closely.

A study of the usual ultraviolet sources and combinations of these with various sources showed that these did not match daylight too well. The committee has been fortunate in having the cooperation of Macbeth Daylighting Company, who, in cooperation with Sylvania Electric Products, made available an experimental lamp. This is currently undergoing testing.

In 1956, Dean Farnsworth proposed that the committee also consider the extension of the Munsell system to samples of higher chromas than were available at the time of the basic Munsell revision. This would be done through the medium of selected fluorescent samples which would be both measured instrumentally and evaluated visually. Dr. Rita Halsey, in a memorandum to the committee, described a method for visually extrapolating Munsell chroma notations, and the apparatus for doing this was designed. would like to see

At the last meeting the progress made to date in the design of a light source to be used for the colorimetry of fluorescent materials was reviewed briefly. It was brought out that the committee does not have the facilities for the construction and testing of lamps.

It was decided to write an interim report on the theoretical work done to date on this problem; the recommendations in this report could then be followed up elsewhere. It was suggested that the next phase of the activity of our committee be the presentation of the various methods currently used for the colorimetry of fluorescent materials, with mention of the advantages and disadvantages of each.

PROBLEM NO. 20 Basic Elements of Color Education

Committee Membership:

Randall M. Hanes, Chairman
Applied Physics Laboratory
Johns Hopkins University
8621 Georgia Avenue
Silver Spring, Maryland

C. James Bartleson

This subcommittee has produced the final draft of the proposed publication, "Facts of Color." Copies of this report have been submitted to all voting delegates for approval and ISCC publication endorsement. This distribution and resulting intensive review has raised a few additional editorial questions; some basic, some minor. The editorial committee, composed of the authors and

Dr. Deane B. Judd and Ralph M. Evans will meet on Monday, March 12, in a closed session for examination of these comments and final editorial review. Anyone wishing to discuss any aspect of this report on this occasion is requested to communicate directly with Dr. Hanes prior to the date of the meeting.

PROBLEM NO. 21 Standard Practice for Visual Examination of Small Color Differences

Committee Membership:

Norman R. Pugh, Chairman
Sears Roebuck & Co.
3301 W. Arthington Street
Chicago 7, Illinois

C. J. Bartleson
M. Bruno
Hugh Campbell
C. E. Foss
K. C. Gale
H. F. George
W. P. Greenwood
W. D. Hall
H. K. Hammond
R. M. Hanes
Martha L. Hensley
S. J. Huey
W. J. Kiernan
C. C. Krause
K. C. McCartt
R. W. McKinley
G. H. Mealley
W. J. Morgan
D. N. Obenshain
Elizabeth D. Quackenbush
W. B. Reese
R. J. Rizzo
R. E. Rossell
Stewart Seass
Francis Scofield
R. C. Stillman
F. L. Wurzburg

In commerce most comparisons of sample and standard for duplication of color are made visually. The conditions under which these visual examinations are made and the skills of the persons making them vary widely.

It is believed that disagreements between parties interested in such comparisons could be diminished if there existed standard procedures for:

1. Illuminating and viewing specimens and standard

2. Instructions for observers in making panel judgments

3. Rating observers for skill in color matching and/or color vision

NOTE: This problem should be limited initially to comparison of opaque nonmetameric materials of similar composition and appearance for the purpose of judging visually whether the observed color difference falls within a preestablished standard or scale of color difference. The object of this restriction is to keep out of the problem the controversial factors of tolerance related to end use and observer experience on degree of acceptability.

Objectives:

1. To establish illuminating and viewing conditions suitable for judging small color differences of specimen panels for the purpose of determining the adequacy of a color match.

2. To determine whether it is practical to apply existing tests for color perceptibility or aptitude to define the eligibility of individuals to participate in such judgments.

3. To establish written procedures to cover good general practices with respect to viewing conditions, qualifications for observers and specimen preparation for the purpose of establishing uniform conditions for color matching so that unbiased observers, singly or acting as a jury, might examine color differences satisfactorily according to these written procedures (such procedures to be compatible with trade practices).

4. To publish recommendations based on the results of these studies in an authoritative journal in a form that will encourage wide-scale adoption by supplier and consumers of color commodities.

In the first meetings the approach has been mainly exploratory obtaining information in this general field. It has become apparent that the scope of this committee is very broad and includes important problems in many industries.

At the 1961 meeting it was agreed that further information would be gathered from interested parties and membership of the subcommittee - the results of this questionnaire will be reported at the 1962 meeting.

In addition the Chairman hopes to present fairly detailed information on the type of lighting unit which he believes should be carefully considered as a general purpose lighting unit in industry. This unit is designed to provide answers to some previous difficulties. It should also result - in combination with greater industry knowledge of color control theory - an improved communication between supplier and customer in the complex area of appearance description and specification.

It is also hoped that a specific revision of the ASTM D-1 Sub-X "Recommended Practice for Visual Evaluation of Color Differences" will be presented. This revision will be tailored to fit into our ideas of a good fundamental approach to color difference control in industry.

On another point which has received some attention - the effect on color difference sensitivity of the light intensity - no progress can be reported since the last meeting. This involves an experiment of considerable importance, but it has to be done right or should not be done at all. The Chairman intends to ask for assistance of other qualified people in the ISCC group in making arrangements to have some valid experimental work done.

Lastly, we will review another long debated point - the effectiveness of the Color Aptitude Test in evaluating prospective inspectors and color matchers. Further help from Subcommittee on Problem No. 10 will be solicited in this program.

PROBLEM NO. 22 Material Standards for the Colorimetry of Opaque, Translucent, and Transparent Materials

Committee Membership:

Fred W. Billmeyer, Jr., Chairman
E. I. duPont de Nemours & Co., Inc.
duPont Experimental Station
Wilmington 98, Delaware

Carl E. Foss
Vice-Chairman
72 Elm Lane
Princeton, New Jersey

R. G. Alexander
W. Budde
S. L. Davidson
A. J. Derr
P. R. Douglas
P. M. Fisher
W. N. Hale
D. R. Hall
H. Hemmendinger
S. J. Huey
R. M. Johnston
W. J. Kiernan
N. M. Komodromos
D. I. Morley
H. F. Parker
R. F. Patrick
S. A. Powers
N. R. Pugh
W. L. Rhodes
J. L. Rood
M. Saltzman
F. Scofield
S. Seass
R. E. Seeber
D. Smith
R. C. Stillman

Subcommittee No. 22 was established in 1957 to study the types of material most suited for use as colorimetric standards for the instrumental measurement of color, to develop specifications for the preparation of such standards, and to develop and recommend procedures for their care and use. Initial attention has been confined to the selection of materials, with the property of primary interest being long term color stability. Two programs are under way on this objective:

Program No. 1. A round-robin program of instrumental color measurement has been initiated to provide a basis for distinguishing between measurement errors and color changes of the same magnitude in candidate materials. The selection of samples and the establishment of procedures have been completed, and the measurement program is under way.

Program No. 2. Studies of the long term color permanence of several candidate materials are under way in Subcommittee members' laboratories. Results covering two to four years' measurements on several materials, including glass, porcelain enamel, ceramic tile, cellulosic plastics, acrylic plastics, acrylic lacquers, amino resins, alkyd enamels, and interference filter coatings, will be reported at the forthcoming meeting.

Based on the results of these reports, the Subcommittee expects to formulate at the 1962 meeting initial recommendations for the selection of materials for colorimetric standards. Consideration will also be given to other objectives of the Subcommittee, including the nature of desirable types and uses of standards.

PROBLEM NO. 23 Expression of Historical Color Usage

Committee Membership:

Everett R. Call, Chairman
Call Marketing Services, Inc.
1000 Vermont Avenue, N. W.
Washington 5, D. C.

Elizabeth Burris-Meyer
Walter C. Granville
Elschen Hood
Martha Jungerman
Kenneth L. Kelly
Frederic H. Rahr
Mary J. Shannon
William M. Stuart
Ouida M. Wessman
Beatrice West
Midge Wilson

When Problem 23 was accepted by the ISCC in late 1957, the objectives were "to derive compatible methods for recording historical consumer color preferences for products in individual industries, to publicize these methods and encourage all industries to adopt them so that (1) useful historical records of consumer preference trends of their products may be available within individual industries, and (2) the interrelationship of consumer color preference of one product upon the choice of another product may be established among industries."

In November 1960, the Board of Directors of the ISCC approved the interim report developed by this Subcommittee.

During the past year many individual companies and industries, on the manufacturing level as well as the retail level, have adopted this method for internal use. Further, a good many of these are currently involved in a program where the interrelationship of consumer color preference of one product upon the choice of another product may be established among industries.

At the last ISCC Annual Meeting in Rochester, a joint meeting with Subcommittee 17 resulted in a program consisting of members of the two committees being presented before the Fall Conference of the Building Research Institute, Academy of Sciences. The individual papers presented were widely distributed, including the method developed by this Subcommittee. Also, this material has become a permanent part of the Academy's library.

It is expected that the method will have been in use long enough and utilized by enough manufacturers and retailers so as to permit final evaluation by this Subcommittee by the next ISCC Annual Meeting.

OSA MEETING AND SYMPOSIUM ON PHYSIOLOGICAL OPTICS

The Optical Society of America has announced its Annual Meeting to be held March 14-17, 1962, at the Mayflower Hotel, Washington, D. C. Included in the meeting will be a two-day Symposium on Physiological Optics cosponsored by the Armed Forces-NRC Committee on Vision, the Inter-Society Color Council, and the Optical Society of America. The Symposium on Physiological Optics was scheduled so that those attending the ISCC meeting could participate in the symposium.

The following is a list of papers which may be interesting to ISCC members:

Wednesday, March 14

Time	Chairman	Papers
9:00 a.m.	H. Fernandez-Moran	WA1-WA4. Micro-Anatomy and Bio-Chemistry of the Visual System.
	E. F. MacNichol	WA5-WA7. Electrophysiology of the Visual System.
2:30 p.m.	G. A. Fry	WB1-WB3. Retinal Image Formation.
		Thursday, March 15
9:00 a.m.	C. H. Graham	TA1-TA6. Simple Discriminatory Functions.
2:00 p.m.	L. Hurvich	TC1-TC4. Contributions to Color Discrimination Theory.
		Friday, March 16
9:50 a.m.	D. L. MacAdam	FB11-FB19. Contributed Papers. Vision I.
2:50 p.m.	D. B. Judd	FE11-FE19. Contributed Papers. Vision II and Color.
2:50 p.m.	A. I. Mahan	FF11-FF18. Contributed Papers. Light Sources.

JOURNÉES INTERNATIONALES DE LA COULEUR

A four-day meeting on color is to be held at Evian, Switzerland, 26 to 29 June 1962. This is the sixth of the Journées Internationales de la Couleur since 1957, the previous meetings having been held in Amiens, Toulouse, Bruxelles, Rouen, and Düsseldorf. Papers are solicited on fundamental research in colorimetry (instruments and principles of measurement, industrial color control, color standards), the psychology and esthetics of light and color, practical applications of color (industrial problems, accident prevention, photography, motion pictures, television, graphic arts), and color education and documentation. Further information may be obtained from Centre d' Information de la Couleur, 23, rue Notre-Dame des Victoires, Paris 2e, France.

A LECTURE SERIES ON COLOR

The Education Committee of the New England Society for Paint Technology has arranged a novel series of lectures on color. The series, beginning February 14, 1962, consists of four lectures at intervals of two weeks; the fourth lecture to be given on March 28th. The lectures are given in the evening at the Museum of Science, Morse Auditorium, Boston, Massachusetts. The four lectures are presented in the evening at 7:30 p.m. by four recognized authorities on the subject of color.

The title of the first lecture is "Basic Elements of Color and Light" by Andrew M. Moore, Macbeth Daylighting Corporation. The second, February 28, is "Color Measurement" by Harry K. Hammond III, U. S. Bureau of Standards. The third lecture, "Attitudes and Trends in Color Usage," will be by Walter Granville, Industrial Color Consultant. The fourth lecture, "Practical Applications of Basic Color Principles to Paint Problems," will be presented by Ralph E. Pike, E. I. duPont de Nemours & Co., Inc.

Such a series of lectures must be very useful to those who can attend. It is an idea that other ISCC member-bodies might like to explore.

NEW I. E. S. LIGHTING FUNDAMENTALS COURSE

A new publication of the Illuminating Engineering Society, I. E. S. Lighting Fundamentals Course book has just been announced. I. E. S. Lighting Fundamentals Course book contains 108 pages; 125 explanatory charts, diagrams and drawings; and has heavy covers with spiral binding. The book is designed for the use of instructors and students, providing essential notes, explanations and examples needed for a course on the basics of lighting design and engineering. It is not a self-study course, lighting handbook or textbook in itself.

The course covers five major areas of lighting information and education: physics of light, including nature of light, the eye, light and sight; lighting terms, laws, controls, measurement; light sources, describing several types of lamps and fluorescent tubes as well as their characteristics and operation; lighting fixtures, a detailed account of various types, their features and costs. A major portion is devoted to lighting and applications, describing lumen, point-by-point methods, and simplified lighting layout problems for six different areas; industrial, office, school, store, residential and exterior. The final section covers lighting cost analyses.

Copies may be obtained from: Publications Office, Illuminating Engineering Society, 345 East 47th Street, New York 17, New York. Single copy, $3.00; quantity prices on request.

1961 COLOR SURVEY

Although it is 1962, many Newsletter readers will be interested in 1961 Color Survey of the National Paint, Varnish and Lacquer Association.

The 1961 Color Survey, the ninth in the series of this annual report, was developed from 1960 color sales data of interior and exterior Trade Sales paints reported by individual manufacturers. It shows color trends for the past five years.

The following procedures were employed in the conduct of this survey:

All color chips submitted were identified by their Color Difference Meter readings. These readings were converted to Munsell color designations. Then the colors were identified by official names established by the National Bureau of Standards and The Inter-Society Color Council. This was followed by classification of the color values in the category of Dark if they had a value of 1 through 3 on the Munsell value scale, Medium if they had a value of 4 through 6, and Light if the value was 7 through 9.

Numbers appearing opposite a color are the ISCC-NBS numerical identifications. The complete list of ISCC-NBS Dictionary of Color Names is included in the National Bureau of Standards Circular 553, priced $2.00, and available from the Superintendent of Documents, U. S. Government Printing Office, Washington 25, D. C.

Copies of the Color Survey may be obtained by writing to James C. DeLong, Director, Statistical Division, National Paint, Varnish and Lacquer Association, 1500 Rhode Island Avenue, N. W., Washington 5, D. C. Single copies are free. In quantity the price is 50 cents.

TWO BOOKS BY FABER BIRREN

Faber Birren's last two books, Creative Color and Color, Form and Space, are both very useful and interesting books for anyone in the field of color--Creative Color, in particular. They present different phases of the work in such a way that they supplement each other and put across to the reader the validity of a number of different approaches to the same idea. There is no one approach that does everything--none all right with the others all wrong! The book, Creative Color, covers many important aspects of color work that artists often ask about--or think about even if they do not ask.

The illustrations, particularly those in color, are appealing design-wise and color-wise as is the choice of paper on which the books are printed. In fact, the whole printing and typography job is unusually fine.

Creative Color seems to have distilled one very fine book from many years of work with color. It finally provides a book that can be referred to artists and designers and to student inquirers (as well as to scientists) with confidence that it will give them a real color education. It is to the art field what Judd and Wright are to the technical field.

Creative Color, Dynamic approach for artists and designers, 128 pp., illustrated (color), Rheinhold Publ. Co., 1961 (L. C. 61-6747)

Color, Form and Space, Three dimensional use of color for architects, designers, and artists, 128 pp., illustrated (color), Rheinhold Publ. Co., 1961 (L. C. 61-14819)

SCHOOLS IN THE U. S. A. A REPORT BY THE MEDDS

Although completely anonymous except as "two architects from the Development Group of the Ministry's Architects and Building Branch" who spent twelve months in the United States studying educational building, this report by the Medds, husband-and-wife team of architects, is an excellent one. Although only two chapters of the twelve the 360 page report contains are devoted to Lighting (Chapter IX) and Colour and Character (Chapter X), it is a report that we recommend to every architect and paint and lighting man connected with the problem of school construction and planning. The Medds spent a year here, and they certainly have produced a fine report. Copies may be obtained from the British Information Service, 43 Rockefeller Plaza, New York 20, New York, for $2.80, postage and handling included, by requesting Building Bulletin No. 18, a Ministry of Education (British) report, July 1961, Schools in the U. S. A.

We cannot resist the following quotation from the chapter on color in which they comment on the mis-application of color, and the increasing difficulty of achieving the fine qualities of a certain few schools, where color sometimes seems to reduce rather than to enhance the quality of natural materials in otherwise quite famous examples. They say:

> "One hesitates to make a plea for analysis and order, for in so doing one is accused of imposing limitations and of cramping the imagination. It seems that there is, among the architectural profession, a resistance to any organization of colours which would enable their qualities to be appreciated before they are used. Range upon range comes forth from the paint industry, but no means of identifying the colours appears to be provided. Some equivalent of B.S.2660 (British Standard 2660: 1955, Colours for Building and Decorative Paints), it is suggested, is needed. It is ironical that the work of A. H. Munsell, pursued in the spirit of knowledge rather than of commercial interest by the Munsell Color Company of Baltimore, Maryland, should perhaps be more widely appreciated by architectural and educational authorities in Britain and Japan than in the United States, where the mention of Munsell conjures up, in the minds of those who do not wish to understand him, a system which inhibits. In fact, the Munsell Atlas (Book of Color) is no more an inhibition to design than a dictionary is to literature.
>
> "Colour harmony would be more easily achieved by those without a highly developed ability to identify the attributes of colour, if ranges were specified, and laid out in accordance with, the attributes of hue, value, and chroma. If this were done, the hue relationship, for example, between paint colour and natural material could be easily established, and degrees of contrast in terms of value could be carefully planned."

Their chapter on Lighting and the many examples given, is quite as illuminating as the chapter on color. The whole report is well written and contains many diagrams illustrative of the subjects they discuss.

In recommending this report to all of our architect and school-interested members, we must add, however, that the program on the fall conference of the Building Research Institute, held in Washington in November 1961, included a symposium and panel discussion, organized by Milo D. Folley, one of ISCC's architect members, on the very subject of "A Color Identification System for the Building Industry." It was the thesis of this meeting that the building industry needs some such method as the Munsell and the ISCC-NBS method of color identification before it is ready to take the next steps that are necessary in applying, coordinating, and producing harmony in the end result. Color specification that will help an architect make sure that the colors he specifies are understood well enough so that they will actually be used on the job, is something badly needed as a first step. And that specification method needs to be taught and understood in all the architectural schools in the country, taught by instructors who themselves understand it! (This is the woeful lack today.) Otherwise we shall have to continue indefinitely to rely on samples to convey or transmit color information. And that is such an archaic method! Far better if architectural schools would begin properly to teach the subject of color. The criticism of the Medds is well founded.

Dorothy Nickerson

Dear Editor:

The poem by Dr. Judd and the letter from Mr. E. P. Genock, Television Manager of the Eastman Kodak Company of Rochester, in the September-October issue of the Newsletter, have moved me to the enclosed effort.

G. J. Chamberlin
Managing Director
Tintometer Limited

If Judd can burst into such rhyme,
Why shouldn't lesser mortals shine?
When one, Von Drake, is brought to book,
It's time we others had a look
At what is said in castigation.

We members of I. S. C. C.
Are not of stuff we ought to be
If we sit by and let him quack
And never rally at his back
In honest indignation.

Who says we're really so high-brow
We can't enjoy his lovely row?
Here's strength to yellow, red and blue
And all the other colors too,
With no dull limitation.

In "Patience", Gilbert (W.S.),
Spoke thus, in operatic dress,
Some years of good Von Drake ahead.
"Primary colours, Yellow, Red".
With him I take my station.

From having played with pots of paint,
I know what's primary and what ain't.
Who worries that the pundits say
"Cyan, Magenta"? Down our way
Drake wins our approbation.

MISCELLANY Amber Wink. Time, January 1962. By 1963 the flashing front turn signals on all new U. S. cars will be changed from white to amber.

The Automobile Manufacturers Association, which announced the new design switch began testing new colors in 1958. It concluded that amber signals are more readily observable by oncoming motorists. The customary white lamps too often get lost in the glare of white headlights at night, or in sun reflection (from chrome) by day. Before the automakers could crank up the change, they had to get 25 states to change motor vehicle laws to allow the use of the amber lamps. Oklahoma -- the last state -- agreed last July.

* * * * * *

Color Odds -N-Ends.

Color pops up in many news items. New York subways install pastel, plastic chairs. The city of Chicago plans to paint street intersections red and approaches yellow. The proprietor of a fashionable dress shop asks for a pink letter box to match the store's decor. At least one hospital is using a new color marking system to keep the patients belongings from ending up in the lost and found. Color-coding drawers and closet to coincide with the bed saves time and expense for the hospital.

Howard Ketcham, Inc. advertising tells us that: A. T. & T. discovered that in applying the right stand-out color to certain booths many customers who might not have thought of making a telephone call were persuaded to do so. Green oranges are dyed orange color to influence sales. (Sorry, from personal experience I find that this sort of thing does make the housewife buy, but she finds that green oranges still taste green. Then what you have is a disgruntled housewife.) Good Humor Lemon Ice Cream was not a success until pink was added and the product merchandised as pink lemonade. Sales quadrupled. 19.5 per cent of all trucking business is generated because some buyer saw a firm's truck and liked the appearance. The sale of City Service Premium fuel soared 50 per cent when red was featured on the Premium pumps and no where else on the station.

There is no doubt about it...color does persuade and influence most everyone. Even the very proper British umbrella has broken out of its usual drab role into a gay look, according to a news item from London. Umbrellas are big business on the Isle of much rain, and where the well-rolled umbrella has long been a symbol of the well-dressed man. Englishmen have always been conservative about their dress, but the firm of Kendall & Sons hopes to change all this by selling a multi-coloured brolly.

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LIST OF ARTICLES ON COLOR RECEIVED BY NEWSLETTER

"Headquarters Color Scheme," R. M. Byers, Paint, Oil and Chem. Rev., 122, No. 5, pp. 12, 25 (March 5, 1959).

"Heterochromatic Photometry by Means of Colorimetric Compensation," H. D. Einhorn, J. Opt. Soc. Amer., 49, No. 3, pp. 263-267 (March 1959).

"Hiding and Color," D. H. Parker, Paint Ind. Mag., 72, No. 10, pp. 18, 20, 24, 26, 28, 30, 47 (1957).

"Hormones and Skin Color," Aaron B. Lerner, Scientific American, pp. 98-108 (July 1961).

"How to Match Colors by Pigment Type," Max Saltzman, Can. Paint & Varnish, 34, No. 8, pp. 26-27, 45-47 (1960).

"How to Use the New Fluorescents," Anon., Mod. Plastics, 38, No. 6, pp. 88-90, 158, 166 (1961).

"How Red is Red?" F. L. Dimmick and R. E. Wiencke, Amer. J. Psychol., 71, pp. 298-304 (1958).

"An Instantaneous Electronic Color-Film Analyzer," Bernard D. Loughlin et.al., SMPTE, 67, pp. 17-27 (January 1958).

"Instrumental Quality Control for Color," T. G. Obrien, Industrial Quality Control, 17, No. 4, 4 pp. (October 1960).

"Instrumentation As an Aid in Color Difference Evaluation," Melvin M. Gerson, Amer. Paint J., 45, No. 33, pp. 90, 92, 97-98 (1961).

"Lighting Factors to be Considered in Textile Color Matching," W. B. Reese, Am. Dyestuff Reptr., 47, No. 2, pp. 49-56 (1958).

"Making Your Own Pottery Colors, IV. Yellows," Kenneth Shaw, Pottery Quat., 5, No. 19, pp. 109-112 (1958); "V. Browns," Ibid, 6, No. 21, pp. 14-17 (1959).

"Measurement of Color Rendering Tolerances," B. H. Crawford, J. Opt. Soc. Amer., 49, No. 12, pp. 1147-1156 (December 1959).

"Measurement, Specification," (Adapted from H. K. Hammond III's talk "Color Measurement and Specification"), Paint, Oil and Chem. Rev., 122, No. 14, pp. 6-11 (July 1959).

"Mechanisms of Colour Discrimination (Proceedings of an International Symposium on the Fundamental Mechanisms of the Chromatic Discrimination in Animals and Man, sponsored by the International Council of Scientific Unions, Paris, 25 July 1958.)," Pergamon Press, New York (1960).

"Munsell Color Standards in High-Gloss Surface," (In Technical Notes), J. Opt. Soc. Amer., 48, No. 9, p. 672 (1958).

"Navaho Color Categories," Herbert J. Landar, Susan M. Ervin, Arnold E. Horowitz, Language, 36, No. 3 (July-September 1960).

Newsletter Committee:

Warren L. Rhodes, Chairman
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INDEX For last Index see No. 145, January 1960.

No. 145 (January 1960)

No. 146 (March 1960)

No. 147 (May 1960)

No. 147 (Continued)

Help Wanted: Physicist-Color Consultant
Tintometer Limited Appoints New Representative
List of Articles on Color Received

No. 148 (July-August 1960)

Maxwell Color Centenary
New Members
Changes in Newsletter Committee
Two Color Meetings in Europe
IDI Announces Annual Design Awards
National Paint, Varnish and Lacquer Association
National Interior Design Month
The Color Guide for Architectural Porcelain Enamel (Faulkner)
More About the Cooper Union Museum Color Exhibit (Nickerson)
Editor's Note
Rug Designing and Dyeing in Pyrgos
Eye, Film, and Camera by Ralph Evans (Downes)
Elsie Murray on Vision
Basic Book of Modern Color Photography
Use of a Group Screening Test for Color Vision Defects
Everett Call Forms a New Company
List of Articles on Color Received

Annual Meeting Issue

Creative Color Theme for 1960 Annual Meeting
Reports of:
- Retiring President, Walter C. Granville
- Bd. of Directors, Ralph M. Evans
- Secretary, Ralph M. Evans
- Treasurer, Norman Macbeth
- Finance Committee and Recommendations for a Budget for the Year - 1960

Problems Committee Report
- Subcommittees:
  - Problem 2, Color Names
  - Problem 10, Color Aptitude Test
  - Problem 14, The Colorimetry of Transparent Materials

(Continued)
- Subcommittees:
  - Problem 16, Standard Methods for Mounting Textile Samples for Colorimetric Measurements
  - Problem 17, Color in the Building Industry
  - Problem 18, Colorimetry of Fluorescent Materials
  - Problem 20, Basic Elements of Color Education
  - Problem 21, Standard Practice for Visual Examination of Small Color Differences
  - Problem 22, Material Standards for the Colorimetry of Opaque, Translucent and Transparent Materials
  - Problem 23, Expression of Historical Color Usage

Report of the News Letter Committee, Warren L. Rhodes, Editor
Report from the American Association of Textile Chemists and Colorists Delegates, Roland E. Derby, Jr., Chairman
Report from the American Ceramic Society Delegates, Tyler G. Pett, Chairman
Report from the American Institute of Architects Delegates, Waldron Faulkner, Chairman
Report from the American Institute of Decorators Delegates, Harold W. Grieve, Chairman
Report from the American Oil Chemists' Society Delegates, Ronald C. Stillman, Chairman
Report from the American Psychological Association Delegates, Leo M. Hurvich, Chairman
Report from the American Society for Testing Materials Delegates, George W. Ingle, Chairman
Report from the American Society of Industrial Designers Delegates, Egmont Arens, Chairman
Report from the Color Association of the United States, Inc. Delegates, Midge Wilson, Chairman

Annual Meeting Issue (Continued)

Report from the Federation of Societies for Paint Technology Delegates, Sam J. Huey, Chairman
Report from the Gravure Technical Association Delegates, Oscar Smiel, Chairman
Report from the Illuminating Engineering Society Delegates, Norman Macbeth, Chairman
Report from the Industrial Designers' Institute Delegates, Howard Ketcham, Chairman
Report from the National Association of Printing Ink Makers, Inc. Delegates, G. L. Erikson, Chairman
Report from the National Paint, Varnish and Lacquer Association Delegates, Joseph F. Battley, Chairman
Report from the Optical Society of America Delegates, Deane B. Judd, Chairman
Report from the Society of Motion Picture and Television Engineers Delegates, Ralph M. Evans, Chairman
Report from the Society of Photographic Scientists and Engineers Delegates, Albert J. Derr, Chairman
Report from the Tanners' Council of America, Inc. Delegates, Helen D. Taylor, Chairman
Report from the Technical Association of the Graphic Arts Delegates, Warren L. Rhodes, Chairman
Report from the Technical Association of the Pulp and Paper Industry Delegates, D. Noel Obenshain, Chairman
Reports of ISCC Representatives and Delegates

No. 149-150 (September-December 1960)

Maxwell Colo(u)r Centenary
Italian Congress on Color
Fourth Journées Internationales de la Couleur (Weale)
Colour Group of the Institute of Physics and the Physical Society
Federation of Societies for Paint Technology
Forty-Fifth Annual Meeting of Optical Society
Society of Photographic Scientists and Engineers
Second Color Control Seminar
Dictionary of Visual Science (Newhall)
Colour Vision: A Field of Unsolved Problems (Wright)
B. A. Brice Dies (Nickerson)
Grete Ostwald Dies (February 13, 1882 - August 1, 1960) (Nickerson)
Fred Billmeyer Receives Appointment to M. I. T.
Dr. Balinkin and Associate Invent Filtergraph
D. Noel Obenshain Moderates TAPPI Program
Note from Helen Taylor
Artists' Pigment-Color Systems (Wolfe)
Manual of Skin Color (Judd)
More About Skin Color (Nickerson)
Sears Seeks Color Man
Miscellany
List of Articles on Color Received

No. 151 (January-February 1961)

1961 Annual Meeting, Sheraton Hotel, Rochester, N. Y.
Revision of the By-Laws of Inter-Society Color Council Inc. (Kiernan)
New Members
The Colour Council of Canada
Fourth Journées Internationales de la Couleur (Continued)
FSPT Evaluates Method for the Assessment of Light Fastness
Deane B. Judd Becomes New Editor of Journal of the Optical Society of America
Color Systems Discussed in Leningrad
Karl Freund as "Mr. Photo Research" (Nickerson)
Editor's Note
More on Artists' Pigment-Color Systems - The Artist's Problem (Wolfe)
A New Look at the Measurement of Light and Color
Still More About Skin Color
Miscellany
Letter to the Editor (Kreidl)

No. 152 (March 1961)

The President Talks (Erikson)
Problems Committee Meeting Program and Summaries of Subcommittee Activities (Pike)

No. 152 (Continued)

ISCC 30th Annual Meeting
Subcommittee No. 2, Color Names
Subcommittee No. 10, Color Aptitude Test
Subcommittee No. 14, The Colorimetry of Transparent Materials
Subcommittee No. 16, Standard Methods for Mounting Textile Samples for Colorimetric Measurement
Subcommittee No. 17, Color in the Building Industry
Subcommittee No. 18, Colorimetry of Fluorescent Materials
Subcommittee No. 20, Basic Elements of Color Education
Subcommittee No. 21, Standard Practice for Visual Examination of Small Color Differences
Subcommittee No. 22, Material Standards for the Colorimetry of Opaque, Translucent, and Transparent Materials
Subcommittee No. 23, Expression of Historical Color Usage
List of Articles on Color Received

No. 153 (May-June 1961)

New Members
Dorothy Nickerson Receives Godlove Award (Judd)
Publications by Dorothy Nickerson
The Colour Council of Canada
New I. E. S. Guide to Home Lighting
OSA to Publish Applied Optics
Optika i Spektroskopiya
Bibliography on Color Blindness (Cloak)
Artist-Scientist Communication (Hill)
American Marietta and Wood Color
The Nature of Animal Colours (Milne)
Miscellany
List of Articles on Color Received

No. 154 (July-August 1961, Annual Meeting Issue)

"Color in Photography and Television" for 1961 Annual Meeting
Next Annual Meeting
Dorothy Nickerson Receives Godlove Award (Judd)
Publications by Dorothy Nickerson
Annual Report of the Board of Directors, Ralph M. Evans
Report of the Secretary, Ralph M. Evans
Report of the Treasurer, Norman Macbeth
Report of the Finance Committee and Recommendations for a Budget for the Year - 1961
Problems Committee Report
Subcommittees:
Problem 2, Color Names
Problem 10, Color Aptitude Test
Problem 14, The Colorimetry of Transparent Materials
Problem 16, Standard Methods for Mounting Textile Samples for Colorimetric Measurements
Problem 17, Color in the Building Industry
Problem 18, Colorimetry of Fluorescent Materials
Problem 20, Basic Elements of Color Education
Problem 21, Standard Practice for Visual Examination of Small Color Differences
Problem 22, Material Standards for the Colorimetry of Opaque, Translucent and Transparent Materials
Problem 23, Expression of Historical Color Usage
Report of the News Letter Committee, Warren L. Rhodes, Editor
New Business
Report from the American Association of Textile Chemists and Colorists Delegates, Roland E. Derby, Jr., Chairman
Report from the American Ceramic Society Delegates, Tyler G. Pett, Chairman
Report from the American Institute of Architects Delegates, Waldron Faulkner, Chairman
Report from the American Institute of Decorators Delegates, Harold W. Grieve, Chairman

No. 154 (Continued)

Report from the American Oil Chemists' Society Delegates, Ronald C. Stillman, Chairman
Report from the American Psychological Association Delegates, Leo M. Hurvich, Chairman
Report from the American Society of Industrial Designers Delegates, Egmont Arens, Chairman
Report from the American Society for Testing Materials Delegates, George W. Ingle, Chairman
Report from the Color Association of the United States, Inc. Delegates, Midge Wilson, Chairman
Report from the Federation of Societies for Paint Technology Delegates, Sam J. Huey, Chairman
Report from the Gravure Technical Association, Inc. Delegates, Oscar Smiel, Chairman
Report from the Illuminating Engineering Society Delegates, Norman Macbeth, Chairman
Report from the Industrial Designers' Institute Delegates, Howard Ketcham, Chairman
Report from the National Association of Printing Ink Makers, Inc. Delegates, F. L. Wurzburg, Jr., Chairman
Report from the National Paint, Varnish and Lacquer Association Delegates, Joseph F. Battley, Chairman
Report from the National Society of Interior Designers, Inc., Delegates, Mrs. Edith Gecker, Chairman
Report from the Optical Society of America Delegates, Deane B. Judd, Chairman
Report from Research and Engineering Council of the Graphic Arts Industry, Inc. Delegates, C. L. Jewett, Chairman
Report from the Society of Motion Picture and Television Engineers Delegates, Ralph M. Evans, Chairman
Report from the Society of Photographic Scientists and Engineers Delegates, Albert J. Derr, Chairman
Report from the Technical Association of the Graphic Arts Delegates, Warren L. Rhodes, Chairman
Report from the Technical Association of the Pulp and Paper Industry Delegates, D. Noel Obenshain, Chairman
Reports of ISCC Representatives and Delegates

No. 155 (September-October 1961)

The Maxwell Centenary
ISCC-NBS Centroid Papers Available Through the Munsell Color Company
A Five-Attribute System of Describing Visual Appearance (Judd)
Deane B. Judd -- 1961 IES Gold Medalist
Visual Environments of Living Light
Mechanisms of Colour Discrimination (Murray)
Fall Conference of the Building Research Institute
Optics and Spectroscopy
Book List (Nickerson)
Dictionnaire Raisonné de L'Architecture Viollet-Le-Duc Vo 7 - Under "Peinture" (Faulkner)
Color Book Illustrated in Color
The Physics of Everyday Color (Evans)
The First Book of Color (Hammond)
Frank J. Rizzo Wins Award
Wanted: A Colorful Career (Drury)
A Question of Primary Colors (Genock)
ISCC Annual Meeting
Miscellany
List of Articles on Color Received

No. 156 (November-December 1961)

New Members
Symposium on Vision
ISCC Elections
Color Systems Defined
Japan's Studies of Color
The Colour Council of Canada
The Colour Group of Great Britain
Color Trend Information
Correction for Book List
List of Articles on Color Received