

INTER-SOCIETY COLOR COUNCIL

NEWS LETTER NO. 104

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NEW MEMBERS

Prof. Bernice Chambers, 122 West 13th Street, New York 11, New York; particular interest: Color names and their use in consumer goods; member of: The Fashion Group.

Dr. Hugh F. O'Neill, 2501 Hamlin Street, N. E., Washington 18, D.C.; particular interest: Interpretation of vegetation on photography; development of special color films for special purposes; bibliography and literature on color; member of: American Society of Photogrammetry; 8 Botanical societies.

Mr. Lawrence Rudick, Kreiger Color & Chemical Co., 6531 Santa Monica Blvd., Hollywood 38, California; particular interest: Color matching, instrumentation, and selection of dyestuffs and pigments for use in a variety of plastic, textile, and speciality applications.

22nd ANNUAL MEETING

The Inter-Society Color Council's 22nd Annual Meeting is scheduled for Wednesday, March 18, 1953, at the Hotel Statler in New York City. This will be on the day preceding the Optical Society Meeting also being held at the Statler. The morning session will be occupied by reports from the various subcommittees of the Problems Committee. Dr. Isay Balinkin, Chairman of the Problems Committee has been working for some time on the program with the various subcommittee chairmen. Every member of the ISCC and its Member Bodies who attend will be interested in obtaining first-hand information on the work of these subcommittees.

A luncheon has been arranged which will immediately follow the morning session. It will be set up in the foyer adjoining the Keystone Room, in which the meeting will be held. This will provide a time for discussion among small informal groups, and it is urged that all that can possibly attend the luncheon do so. The speaker at the luncheon (to be announced at a later date) will definitely be a major attraction. In the afternoon reports of the officers will be given, at which time several items of business will be discussed. The Technical Committees on color problems will give their reports and there will also be reports from the 20 Member Bodies summarizing

1952 color activities. The balance of the afternoon will be devoted to a continuation of the discussion on the Problems Committee reports that were heard in the morning. In a separate mailing all members will receive an advance registration blank. It is urged that whenever possible advance registration and luncheon reservation be made. This will save much time on the morning of the meeting.

The Executive Committee Meeting will be held on Tuesday evening, March 17, 1953, at the Hotel Statler, New York City. This meeting will be held in the Studio Room of the Secretary, Mr. Ralph Evans, unless other notification is made. The Hotel Statler has kindly made available Conference Room No. 4 for the entire day of Tuesday, March 17. This room can be used by any ISCC committee that wishes to hold a meeting. However, it is suggested that requests be cleared through the Secretary's office giving the proposed time that the group desires to have their conference.

G. B. G. for R. M. E.

COLORISTS OF
WASHINGTON
AND BALTIMORE

This oldest of ISCC affiliates met for a dinner meeting on January 26 in the 4th-floor dining room of the Y.M.C.A., 17th and K Sts., N.W., Washington. The meeting, arranged by Mrs. Mildred F. Trimble of the Program Committee, had as speaker of the evening Mr. Arthur E. DuBois, Research Director of the Heraldic Branch, Research and Development Division of the Office of the Army Quartermaster General. Mr. DuBois told how heraldic designs were developed, the background of the introduction of color in, and its application to, items of military service such as seals, flags, insignia, coats of arms, and so on. The subject of this illustrated talk was "Color in Heraldry."

COLOUR
COUNCIL
OF TORONTO

This Council met for a dinner meeting on November 3 at the Pine Room, Scott's Restaurant, 11 Bloor Street West, Toronto. The speaker of the evening was Mr. Charles R. Conquergood, chairman of the group, vice-chairman of the ISCC, and president of Canada Printing Ink Co. Ltd. His subject was "The Work of the British Colour Council", dealing with the history, organization and function of this British Council. Miss Hilary Titcomb assisted, and R. C. Allison presided.

The regular December dinner meeting was held on December 2 at the Cawthra Coffee Shop, 211 College St., West. There were three speakers, Miss Doris Thistlewood of "Eaton's", whose subject was History Symbolism of Festive Colours; Frank Dean of "Toronto Hydro", who spoke on Lighting for the Festive Season; and Frank Halliday, artist, who discussed Decorations for Home and Gifts.

Along with the announcement of the meeting we received an interesting sheet, "Colour in Space," prepared by Professor W. E. Carswell. This gives in diagrammatic form the facts about "advancing" and "receding" colours when seen in small areas and in large areas, and also the effect of increasing depth of atmosphere on the appearance of chromatic colors.

PAINT &
VARNISH
PRODUCTION
CLUBS

As part of the 30th Annual Meeting of the Federation of Paint and Varnish Production Clubs, which opened on November 20 at the Palmer House in Chicago, the afternoon of the 21st was devoted to a Color Symposium. This was highlighted by discussions by Dr. Forrest L. Dimmick, color psychologist at the U.S. Naval Medical Research Laboratory, New London, Conn.; and Carl Foss, well known color consultant. Dr. Dimmick and Mr. Foss are co-chairmen of the ISCC Color

Aptitude Test Committee. A thorough discussion of the work behind the development of the test preceded the unveiling of this set for commercial distribution. The set is being sponsored and offered for sale by the Federation.

COLOR
APTITUDE
TEST

Recently small brochures have been distributed which describe the 1953 edition of the ISCC's Color Aptitude Test. This was prepared by the Color Aptitude Test Committee, F. L. Dimmick and C. E. Foss, Co-Chairmen; and is being offered for sale through the Federation of Paint and Varnish Production Clubs, 121 South Broad St., Philadelphia 7, Pa. Inquiries should be addressed to the attention of C. Homer Flynn, Executive Secretary. It should be mentioned here that preparation of the present edition was made possible by the financial support of the FPVFC, an ISCC member-body. The other important element in the success of the "C.A.T. Test" is the fine work of the committee, now numbering 19 members, who have been at work on the subject since 1940. For the FPVFC, P.O. Blackmore is Chairman of the Research Committee and A. E. Stauderman is Chairman of the C.A.T. Merchandising Committee.

The test consists simply in having a subject make 40 color matches to red, yellow green and blue saturation series with steps small enough that rarely, if ever, will he make all matches correctly. A time limit has been set for taking the test. Its basic aim is to produce a very exacting measure of the color skill, actual and potential, of industrial workers whose jobs require them to make rapid and accurate judgments of color matching; an example is the screening of new employees. The price of \$125 includes an easel with fixed color chips, a chip dispenser with corresponding loose chips; 100 scoring sheets, a scoring chart, and a carrying case.

E-12 REPORTS ARE
DISTRIBUTED WITH
THIS NEWS LETTER

With this issue of the News Letter we enclose for all ISCC members and delegates a copy of a symposium held last spring by Committee E-12 (Appearance) of the American Society of Testing Materials on the measurement of small color differences. Much of the information reported in this symposium is not available elsewhere. So hang on to your copy! If other copies are desired, they may be purchased from ASTM headquarters, 1916 Race Street, Philadelphia 3, Pa. The ISCC is supplying your copies without charge because it believes the report contains material that should be available to every ISCC member interested in color measurements.

JAVITZ'
NEW WORK

ISCC Member Alex. E. Javitz, formerly Associate Editor of Electrical Manufacturing, has recently been appointed Special Features Editor of this Journal. Besides his Individual Membership in the ISCC, Mr. Javitz is also a member of the American Chemical Society, the Society of Plastic Engineers and the Conference on Electrical Insulation; he is also an associate member of the Institute of Radio Engineers. We take this opportunity of congratulating Mr. Javitz and wishing him all success in his new duties.

KATHERINE
CHANDLER'S
NEW WORK

The many friends of Katherine Chandler, ISCC Individual Member, will be pleased to hear about her new connection. She is now associated with Voorhees, Walker, Foley and Smith, Architects, in charge of Interior Design. Miss Chandler, formerly assistant director of Container Corporation of America's Department of Design, has been living in northern New York since her resignation from that company in 1948. She began her new assignment at 101 Park Avenue, New York 17, early in November.

NEW TCCA
DEVELOPMENTS

We recently received news announced by its Managing Director, Margaret Hayden Rorke, that - The Textile Color Card Association of the U.S. had issued its Confidential Advance Hosiery Card for Spring 1953, portraying six new colors in 15-denier, 60-gauge nylon. The six featured colors are Sunflash, Rose Lustre, Beige Blond, Mokatone, Magic Glow and Charm Taupe. The two-page release is as usual replete with suggestions for fashion coordination of these colors with others in the costume ensemble.

Another TCCA release concerns the 1953 Fall Colors for Man-made Fibers and Silk. Eight of these, described as "radiant" colors, are portrayed in pure silk satin to accentuate their richness. They comprise the group called "Glamour-Glitter-Glow" and include the colors Gold Sparkle, Radiant Turquoise, Coral Glint, Green Lustre, Peri Twinkle, Glitter Pink, Emerald Glow and Red Glamour. Keyed to a more subtle mood are eight "after five" muted colors in the group The Twilight Hour; they are called Bronze Dusk, Eventide Aqua, Melody Gray, Blue Allure, Romance Pink, Charm Gold, Sundown Blue and Twilight Beige. Twelve groups of "tone-on-tones" are presented in acetate and rayon fabrics. Harmonizing blues include Versailles Blue and Sky Azure; of more greenish tinge are Orient Peacock and Scarab Blue. Red Chianti is a light wine shade, while a lighter blending color is Pink Geranium. More bluish are Rose de France and Clover Pink. Rose Henna and Copper Lacquer are "flaming hues with a dash of orange." In the violine range are Parma Mauve and Venetian Violet. Lavender Jade and Violet Plume are bluish purples, while Paris Olive and Fernleaf Green are yellowish greens. More bluish are India Green and Green Crayon. Hot Ginger and Tawny Ochre are described as "burnished golden tones." The card is completed by the more neutral colors Frosted Coffee, Beige Pearl, Fresco Gray and Gray Tile.

The 1953 Fall Woolen Colors total 40 in all. A group of eight "very deep subtle shades," called Winter Shadows, are shown in a fleece zibeline fabric, and include Black Plum, Seamist Blue, Winter Brown, Bronze Shadow, Rose Smoke, Frosty Grape, Blue Night and Twilight Red. A "more animated" group is called "Autumn Lights," and includes the colors Coral Fire, Turquoise Glow, Golden Glory, Flame Blue, Blue Blaze, Violet Light, Glitter Green and Red Flair. In the basic rose to red range are Grape Pink, Rose Strawberry, Scarlet Rose and Wine Apple. The "neutral" range includes Desert Earth, a warm medium brown, and the harmonizing Blond Champagne. Other colors in the collection include Ivory Sand, French Clay, Inca Copper, Peach Brandy, Goldspice, Porcelain Yellow, Paris Moss, Green Willow, Rustic Pine, Leeward Green, Elysée Blue, Como Sky, Blue Spray, Ocean Blue, Mayfair Violet, Mauve Periwinkle, Gray Opal and Bayberry Gray.

TCCA COLOR
MASK

The 9th Edition of the Standard Color Card of America contains 216 beautifully and harmoniously arranged colors, a dozen on each of 18 pages. Recently the Textile Color Card Association has prepared for sale a mask which permits the isolation of two or three colors by covering up the others while exposing those colors selected. Since one side of the mask is gray and the other black, one can study the harmonious combinations on either a gray or a black background. The mask has 12 windows, each with its own little shutter, which can be opened by sliding it out. Since the windows can be opened in either horizontal, vertical or oblique arrangement, various color combinations, contrasting or analogous, can be examined for harmonious effect. While unlimited combination and viewing of any of the colors is not possible, more combinations can be made than one would think at first thought. In addition to any grouping on a given page, the right-hand colors of page 1, for example, may be viewed with the left-hand colors of pages 2, 4, 6, 8 and perhaps 10. The price of the mask is \$1.50.

COLOR The following letter, dated at Paris on December 8, 1952, was
INDEX received by Mrs. Mary J. Gibb of the American Ceramic Society,
 from M. Paul Bertin of the French Ceramic Society. This letter
and the following one, signed by Mr. J. C. Richmond, are self-explanatory. Can
anyone help in the solution of this problem?

Paris, Le 8 décembre 1952

Dear Mrs. Gibb:

We are urgently in need of the exact physical definition of the term "color index". This index is used in America to define the somewhat yellowish or somewhat bluish tint of enameled pieces containing TiO_2 . It takes a positive or negative value according to the coloration obtained; - the white color of MgO is taken as standard. We would appreciate a prompt reply.

Thank you in advance. Naturally we are at your disposal for a similar reciprocal service. Please answer by air mail, attention of Monsieur BERTIN, Engineer acting as Chief of Documentation at the C.N.E.R.C. of the French Ceramic Society, 23 rue de Cronstadt, Paris XV^e. Enclosed please find two resumes of French patents or abstracts (?). Please accept, dear Mrs. Gibb, our respectful greetings.

Engineer Acting as Chief of Documentation
(signed) Paul Bertin

December 19, 1952

Dear Mrs. Gibb:

Mr. Jaffe has asked me to prepare a reply to the letter of December 8th, 1952 from P. Bertin of the French Ceramic Society.

I have talked to several individuals who are experts in the field of color technology and measurement, and none of them are familiar with the term as defined in the letter. It may have been used by some author, or by some producer to identify his product, but from the description given in the letter, it would appear to be one form of "Yellowness Index", a number of which have been developed for specific purposes. One of the more common ones is described on page 22 of the enclosed Circular C-429 of the Bureau of Standards, "Photoelectric Tristimulus Colorimetry with Three Filters." There are also references in this Circular to at least two other yellowness indices.

Copies of Mr. Bertin's letter and this letter are being sent to Dr. I. H. Godlove, Editor of the Inter-Society Color Council News Letter, with the hope that a note in that publication will locate a reference to the "Color Index" referred to.

Very truly yours,
Joseph C. Richmond, Ceramic Engineer
Member, ACS Delegation to the I.S.C.C.

BALINKIN Again our recent Chairman has had an opportunity of visiting
IN EUROPE Europe for a scientific and technical meeting. His last European
 trip was to Stockholm. This summer he went as official repre-
sentative of the American Ceramic Society to the 3rd International Ceramic Congress
at Paris on May 11-17 and to an International Symposium on the Reactivity of Solids
in Gothenburg. His reports in The American Ceramic Society Bulletin, vol. 31,

Nos. 6 and 8, 1952, are slightly too long to abstract briefly. They are written in Balinkin's usual delightful style, beginning with a quotation from W. Cowper: "dunce that has been sent to roam, excels a dunce that's kept at home." At Paris, a paper on the colorimetry of ceramic bodies and glazes was read by M. Kantzer. Balinkin's ever-active sense of humor was evident in his report of the criticism of the use of a photoelectric 6-filter colorimeter. Although the question whether the eye of a woman is better than the instrument was debated, everyone endorsed the comment that the instrument is cheaper to maintain. Under a picture were given the names of three dignified scientists. After the first name follows: "unidentified woman, not a member of the symposium." The lady is nude, a sculptured ceramic product. At the Paris congress, different colors were used to distinguish different membership divisions and officials.

CORONATION SHADES Through the courtesy of former chairman Balinkin, we have a news item on the British Coronation shades in a clipping dated December 20, 1952. Among the colors which have been especially featured by the British Colour Council are Edinburgh Blue, Windsor Gray and Imperial Scarlet. Visitors from America will be able to have a preview of the new colors at the British Industries Fair, which opens in London and Birmingham on April 27, five weeks before the coronation. The "greatest display of textiles and of clothing ever shown" will distinguish the Fair. The clothing will include dresses made from the new stiff cotton fabrics with a permanently embossed finish that will remain undaunted through washing and light ironing. Traditional Victorian patterns copied from the bead-mosaics of old purses will be seen, along with the intricate lace doilies popular in the eighteenth century.

The streets of London during Coronation week will be ablaze with brilliant uniforms, such as the scarlet tunics of the Life Guards and the Foot Guards, with their shining helmets and tossing plumes. But the organizers of the spectacular pageant will make sure that costumes, bunting and other decorations will all harmonize, with no colors so strident as to make the scene too gaudy. The colors have been in the hands of industry for more than a year, with a complete scheme of suggested shades worked out by the Colour Council for guidance.

RED AND FLIES Through the courtesy of ISCC Individual member Samuel Kamen of 800 E. 17th St., Brooklyn 30, we have an item from Canberra, Australia, appearing in the Times of December 7, 1952. Australian scientists concluded that flies prefer red to any other hue. Laboratory tests showed that with half a dozen (sic!) colored surfaces to choose from, the flies picked the red. Other colors in order of preference were dusky blue, medium gray, yellow, green, light gray, sky blue and white.

Mr. Kamen comments as follows: "While it is true that none of our interior decorator members have clients with wings and six legs (altho they may sometimes think they have horns and a pointed tail, - or long ears and four legs!), I am enclosing a news item....." "Those flies were certainly not offered a very exhaustive or methodical choice of decorating schemes, were they?"

MacADAM HONORED The following item about Dr. MacAdam, Optical Society of America delegate to the ISCC, appeared in the December 1952 issue of the Journal of that society.

"Dr. David L. MacAdam, an Eastman Kodak Company research scientist, is the recipient of the 1952 Journal Award of the Society of Motion Picture and Television

Engineers. Dr. MacAdam, who received the award at the Society's annual convention in Washington on October 8, is being honored for his technical article, "Quality of Color Reproduction," which appeared in the SMPTE Journal in May, 1951. In his article Dr. MacAdam discussed joint problems faced in color photography and color television. He recommended techniques, based on research results, by which top quality color reproduction can be identified. Dr. MacAdam is a research associate in the physics division at Kodak Research Laboratories. His extensive studies in various phases of color reproduction in photography have made him an authority on color problems. He is a life member and former director of the Optical Society of America and in 1940 was the first recipient of the society's Adolph Lomb medal for noteworthy contributions to optics. In 1947 he was one of seven U.S. delegates to the world color conference at Cambridge University. He is a trustee of the Munsell Color Foundation and a member of the U.S. technical committee on color measurements of the International Commission on Illumination. He is chairman of the subcommittee on color measurements of the American Standards Association. During World War II he developed techniques for study of camouflage and camouflage detection methods for the Office of Scientific Research and Development."

TWYEFFORT ISCC Individual Member Raymond G. Twyeffort, who for many years
IN THE NEWS has worked to popularize less neutral colors schemes in men's apparel, just cannot stay out of the news. He has again been quoted, and reproduced photographically, in several newspaper articles. And according to correspondence with Dorothy Nickerson, he has appeared on television on ten TV broadcasting stations. He gave the prologue in St. Louis on September 22 to the famous Veiled Prophet Ball, which he saw in Detroit on TV. He was impressed by the appearance of seven thousand men in tails, opera hats and many opera capes, since he has campaigned for more chromatic color even in men's evening dress.

The Chicago Sun-Times of September 11 quoted him as condemning the "casual look" in men. "Every man who owns a share of stock, a motor car or a TV set is a capitalist and should dress like one." And the paper exemplifies this dressing with four photographs. Similar sentiments were quoted by Dorothy Parnell, Women's Editor of the Milwaukee Sentinel, who describes Twyeffort as the "czar of men's fashions." And in the Detroit News of November 17, 1952, Judith Rose had an interview with "the country's top-flight sartorial authority," and headed her column "Twyeffort Promotes Formality." When speaking or writing on his favorite theme, Twyeffort's diction is trenchant, incisive, ardent and astute; so he usually gets at least a thorough hearing.

COLOR FOR According to a leaflet on Eastman Kodak's fourth annual showing
ADVERTISING of photography, "Color for Advertising," there still remain, at the moment of writing, four of the seven exhibitions of the series. These are: In Chicago at The La Salle, Chicago Room, on January 27-30 from 12 noon to 10 P.M.; in Cleveland at The Hotel Carter, Petit Cafe on February 4 and 5 from 12 noon to 10 P.M.; in Philadelphia at The Adelphia Hotel, the Jefferson Room, on February 10, 11, 12 from 12 noon to 10 P.M.; and in New York at The Hotel Shelton, South Lounge, on February 16-20 from 12 noon to 10 P.M., except Friday 4 P.M.

CANADA INK The October 1952 issue of Canadaink, modest house organ of
AND BROWN Canada Printing Ink Co., Ltd., is a study in brown which must have required a brown study (which it says describes deep concentration) for its preparation. A neat cylindrical diagram shows the relation of brown to orange and to Munsell yellow-red; and the issue is printed in brown and

orange. It lists 33 names which it considers as referring to colors among the British Colour Council's "Dictionary of Colour Standards" which should be classed as browns. It explains brown paper (kraft), and calls attention to such phrases as "dark brown taste," "do something up brown," "brown sugar," and "brown study"; quotes poetry containing other color allusions, and tells a joke or two. We always find Canadaink well worth reading. The president of Canada Printing Ink Co. is our well-liked vice-chairman C. R. Conquergood.

SMITHSONIAN DYE TRANSMISSION TABLE

A table of the transmission of a considerable number of commercial dyes, expressed as a function of wavelength, which was prepared for the revision of the Smithsonian Institute's tables of physical constants by the Editor in 1949, has finally reached galley-proof stage. In final form this table is a condensation, to less than half its original compass, of a table of which the Editor has a couple of ozalid copies. These will be mailed to the first persons requesting them and explaining a real need for such tables; in fact, a few more copies may be run off from time to time as rapidly as our greatly diminished staff permits.

Only dyes having a "Colour Index" number, or a "Prototype" number recognized in the 1949 AATCC Year Book are listed. The concentrations are such as to make the minimum transmission 10% (unit density). The indicated solvents are acid or alkaline buffered water, ethyl alcohol or benzene. The dyes are arranged in order of wavelength of maximum absorption, which is stated along with the position of other prominent absorption bands; the exceptions were the yellows whose absorption maximum was at wave-length less than 400 mu. These were adjusted to 10% transmission at 430 mu.

From the data of the table, approximate data for stronger solutions, whose transmission at the wave-length of maximum absorption (of the weaker solution) is only about 1%, may be readily obtained by means of a table of squares. Such solutions are twice as concentrated as those of the table. Their transmissions at any given wavelength are approximately the squares of the tabulated transmissions. These relations depend on the validity of Beer's Law for the solution in question. The names applied to the dyes are not in general the present commercial names of individual American manufacturers, but are the older names assigned by the 1949 AATCC Year Book to each Color Index number, pp. 237-260; or to the "foreign prototypes," pp. 261-278. These two volumes may be found in nearly all good libraries. But the dyes could be ordered by the numbers and names of the table even from a manufacturer whose name for the dye is very different.

The Editor implores anyone requesting a set of the extended tables and not rapidly receiving them please to understand, without specific reply, that the demand has exceeded the supply and that the Editor will hope to forward a copy at some not too distant date.

I.H.G.

VISIBILITY We have received reprint of an interesting article by W. E. K. Middleton and A. G. Mungall, "On the Psychophysical Basis of Meteorological Estimates of 'Visibility'," from Trans. Amer. Geophysical Union 33, 507-12 (Aug., 1952). The work arose out of a serious disagreement between two approaches to the same problem. The visual range of a black object of about 1° subtense rising against the horizon sky is given by a simple equation (Middleton 1941) relating the visual range to the extinction coefficient of the atmosphere and the least contrast that the eye can appreciate under the prevailing conditions of

background luminance B' and angular size of the object. The contrast is defined to depend on B' and on the luminance B of the object. The first equation was verified by S. Q. Duntley (1948).

Very extensive investigations of the dependence of the least contrast on the two variables mentioned above were made during the Second World War at the Tiffany Foundation and reported on by H. R. Blackwell (1946). When simultaneous measurements of extinction coefficient and estimates of visual range were used to calculate least contrast by means of the above equation, however, it was found that the values obtained were five to ten times the Tiffany results. This led to the making of direct measurements of the contrast between the mark and its surroundings at the moment when a meteorological observer identified it as being at the visual range. This was done with a specially constructed photoelectric telephotometer. The results showed a wide variation (too wide a variation) of values of contrast corresponding to a 3:1 variation of values of visual range for any given state of the atmosphere. The authors lay the blame for this at the door of the instructions (e.g. by the Conference of Directors, Washington, 1947), which demand the recognition of an object rather than mere detection of a boundary. Instead of the latter simple visual task, they require a complex process about which very little is at present known. The negative result of the experiments is to show the unreliability of the present estimates of "visibility"; but on the positive side the authors suggest a value of least contrast for the conversion of instrumental readings to visibility, "but not on any account for the reverse process."

ILLUMINATION AND COLOR

Another interesting article recently received is by R. W. Burnham, R. M. Evans and S. M. Newhall of the Color Control Division of Eastman Kodak: Influence on Color Perception of Adaptation to Illumination (J. Opt. Soc. Amer. 42, 597-605; Sept., 1952). When one views surface or transmission colors first in daylight, then when adapted to, say, tungsten light, or the reverse, the colors appear very different. They do not appear as different, however, as we would expect if the color were calculated from the "pure physics" of the light sources. This phenomenon is known as color constancy. But the direction of the change is, at least roughly, what one might expect. The authors have determined the actual facts more exactly than these statements give them.

Studies of this subject have been done either by a method of memory of the color under one light and estimation of the difference (Helson-Judd-Warren, Bouma-Kruithof, and Godlove) or by the method of binocular septum matching (Hunt, Winch-Young, and the present authors). Six experienced observers made consistent determinations of various colors which appeared the same with adaptation to tungsten light and to artificial daylight. These observations were made with each eye viewing a different color patch and with the patches appearing juxtaposed at the middle of a fused binocular field. The method was to make the two juxtaposed patches match by adjusting one of them, sometimes when both eyes were adapted to the same illumination and sometimes to the different illuminations. Plots of the data in the CIE chromaticity diagram indicate a systematic shift in color appearance toward the blues when adaptation was changed from daylight to tungsten; or toward the yellows when adaptation was changed from tungsten to daylight. The magnitude of this color shift was substantial, at least in the considerable color region investigated, for here the average length of the representative vectors was 0.10 in CIE terms or of the order of 20 just perceptible color differences. Qualitatively, the results confirm those of Hunt and of Winch and Young. The theoretical implications will be discussed in a later paper.

BLACK AND RED VELVET An interesting color item was clipped and sent to the Editor in the late fall by Helen Taylor. Velvet colors, it was said, are so prevalent this season on coats, suits and dresses that they recall the battle of the velvet collars during the French Revolution. In the early days of the revolution, royalists boldly displayed their political sympathies by wearing black velvet collars as a symbol of mourning for the victims of the guillotine. The revolutionists challenged them with red velvet collars as a symbol of the work of the guillotine.

YOUR COLOR AND YOURSELF This is the latest book by the prolific author and noted color consultant, Faber Birren. It is a 124-page book published by Prang Company Publishers, Sandusky, Ohio. Price \$2.50. This is not the first adventure of the author in this field; for a dozen years ago he published a similar but less complete booklet, "Character Analysis Through Color," using the pseudonym Martin Lang. Perhaps then more than now the author's primary purpose was entertainment of the reader; but after years of thought he seriously maintains the thesis that a good deal about the personality of an individual can be told from his favorite colors. That in the intervening years Birren found many persons who disagreed with his views is quite clear. But that the author's attitude is sensibly both realistic and frank will be obvious from the following quotation (page 17).

"How credible are the analyses that follow? The author is quite sure that if serious objections were raised he would be left with little defense. He therefore insists that he is trying to prove nothing. The contrary views held by surgeons who would work on the organs of the body and psychiatrists who would work on the mind are not always easy to reconcile in many cases of illness. The whole of this book may be doubted, or very little of it accepted. Whichever view may be held, the author crosses his fingers and hopes that the reader, enthusiast or skeptic, will find himself caught in the net of his admitted color predilections." At another place we find: (page 32) "While the author believes that many parts of this book have scientific value and could be used to advantage by psychiatrists and psychoanalysts, he prefers to look upon his research and conclusions more in the light of entertainment and to offer them as an amusing key to the psyche of normal humans."

The brief chapters are headed "A Preference for Red," "A Preference for Green," and so on, the other hue names so used being maroon, pink, orange, yellow, blue-green, blue, purple and brown. Birren distinguishes also a "complementary red type" and "complementary blue type" and heads three sections "A Note on Yellow-Green," "A Note on Lavender," and "Acquired Traits: White, Gray, Black." The headings of the other brief are: "The Author: to His Reader," "Finding Your Color - and Your Self," "Making an Analysis," "Emotional Reactions to Color," "Physical Reactions to Color," "Color, Neuroses and Psychoses," and "A New Expression."

Whether or not one agrees fully with the author on the scientific value of the material of this little book, any one interested at all in the relations between color and personality will find its perusal profitable. If nothing more, almost any normal person will find it entertaining. But in the chapters not apparently designed primarily for entertainment, although the reviewer remains skeptical he believes that if anyone may forge a new science of useful therapeutic color information, Faber Birren is that pioneering man. For he does not merely read, collect and speculate. He does a good deal of careful thinking, his attitude toward the subject is the serious one of the zealot, and he puts the theories to the test of practical application whenever possible.

I.H.G.

GET YOU RED
OR GREEN?

Another color item in a newspaper clipping sent to us in the late fall by Helen Taylor headlines a recommendation of a meeting of traffic experts. They wanted to mark the cars of drivers found unsafe with a red sticker. Good drivers were to get a green sticker.

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