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INTER-SOCIETY COLOR COUNCIL

NEWS LETTER No. 21

SEPTEMBER 1938

I. H. Godlove, Editor-in-Chief
Charles Bittinger, Editor for Art

C. E. Foss, Editor for Industry
D. B. Judd, Editor for Science

BOSTON COLOR GROUP

In our March letter, we reported this group at a pleasant dinner and divertisement at Wellesley in October. We have been informed that since then the group met at the offices of the International Printing Ink Company, Inc., and listened to the informative talks on the "Chemistry of Color", "Color as Light", and "Color in Use", that have been enjoyed by so many of us in other centers. In January, the group were regaled with a talk at the Massachusetts School of Art by Professor F. L. Allen, on the subject: "The Methods of Old and New Masters in the Use of Artists' Color Pigments". In February, they were entertained at Filene's Department Store with a talk on "The Use of Color in Woman's Clothing" by Miss Beatrice Bowry. We are told that the average attendance at these meetings was about twenty. It is of interest to note that in January the following resolution was passed: "The Boston Color Group hereby endorses the aims and purposes of the Inter-Society Color Council and expresses its willingness to cooperate as far as possible in the Council's committee activities".

THE COLORISTS

of Washington and Baltimore met at the Arts Club, Washington, on May 2nd at dinner and heard Mr. Arthur S. Allen, well-known color consultant for industry, whose work was described in a color-illustrated article of the first number of FORTUNE, tell about this work. For the last decade Mr. Allen has been lecturing on color and doing consulting work on color designs for lamp bulb and soap packages and wrappers, linoleum, carpets, ceramics and various other commodities and packages.

CHICAGO

Bulletin #19 from the Chicago Association for Color Research announced that the first meeting of the 1938-39 season was to be held on Wednesday, September 14. Their new home for the ensuing season will be the Merchants and Manufacturers Club, where members of the group will continue to meet for dinner before the 8 o'clock meetings.

TENTH MEMBER BODY JOINS COUNCIL

AMERICAN CERAMIC SOCIETY.

Secretary: Ross C. Purdy, 2525 N. High St.
Columbus, Ohio.

Delegates: V. H. Remington, Chairman; Arthur C. Hardy and C. Robertson.

A letter written to the secretary of the American Ceramic Society by Dr. Judd relative to the Council's aims and activities, is being published in the Journal of the American Ceramic Society. Since it contains information that should be in the hands of all delegates and Council members, reprints have been requested and will be mailed as soon as they are available.

NEW	Arthur S. Allen	Orrin W. Pineo
INDIVIDUAL	Marion A. Belknap	Rowland S. Potter
COUNCIL	Clarence Deutsch	Herbert T. Strong
MEMBERS	Fred H. Emery	George G. Sward
	Dean Farnsworth	Merle B. Sweet
	Lorain Fawcett	Francis L. Wurzburg, Jr.
	Edward G. Lunn	

(Note: The Secretary will make available soon a roster of Council membership).

NEW EDITOR The Editorial Staff wishes to announce the appointment in February of Mr. Carl E. Foss, as Associate Editor for Industry of the News Letter. Mr. Foss is too well known in the color field to need introduction; but we shall record that he is Assistant Director of the Research Laboratories of Interchemical Corporation, New York City, and has long been associated with the research and public relations work of Philip Ruxton, Inc. and International Printing Ink Company, Inc. Mr. Foss, in spite of recent association with scientists and artists, and membership on the O.S.A. colorimetry committee betokening his work in the applications of colorimetry to industrial problems, has essentially the point of view of industry. We feel that the News Letter is very fortunate in enlisting the aid of Mr. Foss.

THE COLORQUERY Question No. 11. What causes dark hair to turn gray and white?
AND VISIONNAIRE See the answer on the last page.

A FROG You may remember that the introductory "Hueful Talk to You",
IMPALED written by your editor-in-chief, invited you to join a frog-sticking party in case any of his frogs of fancy strayed too far from the puddle of scientific accuracy. Alas, we did not expect that the first thrust would come from an Editor, who we thought would support us unto death! Mr. Bittinger's letter is self-explanatory and we quote it in full (minus his paragraphing and artistic script).

"As the heavy Editor for Art I know I should keep my mind on my business-- however, as you take a fling about ART, I take my pen in hand. In reference to the color green in the crest of a wave I would like to say a few words. The selective absorption and scattering in a column of water acts in such a way that the long wave lengths of light are absorbed first and as the column increases shorter and shorter wave lengths disappear. Now the crest of the wave has a shorter column, therefore it is green in contrast to the remainder of the water which presents a longer column (due to the round trip of the light which is scattered and absorbed both coming and going) which is blue. This of course applies to uncontaminated ocean water. If I am wrong about this please let me know."

Mr. Bittinger, who was sailing the green waves when our copy was written, and should be an expert, superimposes dichroism on scattering, both of which we discussed. Are there other comments?

DIFFERENCES Your editor repeats an oft-quoted opinion, with some of his own
OF OPINION additions: When a plumber makes a mistake, he charges twice for it. When a lawyer makes a mistake, it is just what he wanted, because he has a chance to try the case all over again. When a doctor makes a mistake, he buries it. When a general makes a mistake, a row of crosses

marks the spot. When a chemist makes a mistake, an eye may be lost or disarticulated limbs scattered; but such errors have discovered new dyes and founded industries. When a preacher makes a mistake, nobody knows the difference; and when a judge makes a mistake, it becomes the law of the land--until another judge makes a different error! But when an editor makes a mistake, duels, diplomatic bombshells and holocausts ensue, and the record is preserved for all posterity!

SEVENTH ANNUAL MEETING

In October the Journal of the Optical Society of America will complete the record of our Seventh annual meeting. It will contain a review of the Council's development and activities, a picture of the evening popular session at the Electrical Testing Laboratories, last February, and the five invited technical papers presented at the afternoon session. Minutes of the morning business session were mailed to members early in April, mimeographed copies of the evening session were distributed in June through the courtesy of the Electrical Testing Laboratories, and the technical papers become available in October through the courtesy and cooperation of a member body, the Optical Society of America.

AN ANALYSIS OF "WHO'S WHO IN COLOR"

An analysis of the interests of those named in the Council's recently published Who's Who in Color indicates that the chief color interest of Council members and delegates is psycho-physics; of non-members, physical. Interest in "creative color" vied with psycho-physics for first place among individual members, while psychology followed close behind psycho-physics for the delegate-group. In the non-member group, physics was a strong first, with chemistry far behind in second place. The report contains slightly less than 250 names in 18 pages of condensed biographical material, along with a statement of the criteria for inclusion in the list. We think that Miss Nickerson and her committee are to be heartily congratulated on a job very well done.

USE OF COLOR IN LABORATORIES

Being a laboratory worker, and sensitive--perhaps too sensitive--to chromatic color, your editor noted and records an item on the new I.C.I. Laboratories at Blackley, Manchester, England, built for the Dyestuffs Group of the Imperial Chemical Industries, Ltd., and opened in January. In the Journal of the Society of Chemical Industry, vol.57 (Jan. 15, 1938), it was said on page 57 that: "Some effort has also been made to provide stimulating surroundings by a varied use of Colour."

COLORIMETRIC CALCULATOR

We have received a reprint of an article on "A Calculator for Obtaining Tristimulus Values from Spectrophotometric Data," by H. W. Swank and M. G. Mellon, published in J. Opt. Soc. Amer., vol. 27, pp. 414-5 (Dec., 1937). According to the article, the mechanical integrating device described makes possible the calculation of the tristimulus values and the brightness of a color from spectrophotometric determinations in about 20 minutes; and avoidance of the tiresome reading of values from a graph without sacrifice of accuracy is claimed.

"SCIENTIFIC COLOR NAMING OF DRUGS"

An article of the quoted title, by D. B. Judd and K. L. Kelly, which appeared in the Journal of the American Pharmaceutical Association, vol. 27, pp. 208-11 (March, 1938), describes the I.S.C.C. system of color names familiar to the Council delegates because of reports by our Problems Committee chairman, and general discussion

at annual meetings. In this connection we have received notice of the sixteenth annual Plant Science Seminar, held in Minneapolis under the auspices of the American Pharmaceutical Association. This included, on August 19, a symposium on Color Naming for the Botanical Monographs, directed by Mr. Kelly, as well as a paper on the same subject by him. We shall ask Mr. Kelly to report progress in a later issue of the News Letter.

AN ARTIFICIAL DAYLIGHT ROOM

We have received an account of the successful installation of an artificial daylight sky at the Bureau of Agricultural Economics, whose color technologist is our well known Secretary, Miss Nickerson. We understand the installation to have been made with the cooperation of Macbeth Daylighting Company. The difficult engineering problem was the securing of artificial daylight, well diffused, over a large area, in sufficient intensity, without undue heating. The room is provided with 15 large lamps (500 and 1000 watt), each covered with a filter converting the light of the tungsten lamps to "daylight". These and a ventilator are set behind a glass diffusing screen in the form of an overhead rectangle. With 500-watt lamps, the illumination at table height is 50 foot candles; with 1000-watt lamps, 100 foot candles. The installation was developed for use in the grading of various agricultural products, particularly cotton. Miss Nickerson reports that a light of color temperature 7800°K was preferred by graders to a light matching I.C.I. "illuminant C", which corresponds to about 6500°K. This means a slight movement of preference toward the bluer, "North Sky", light from our older conception of "average daylight". It is also reported that 60 to 80 foot candles at the working surface seems sufficient illumination, as worked out on the basis of June and December foot-candle measurements made in about a dozen cotton laboratories.

A PRIZE PAPER

It has come to our attention that a paper by our Chairman of the Problems Committee and Editor for Science, Dr. Deane B. Judd, was awarded the annual prize of the Society of Motion Picture Engineers for the best paper appearing in its journal. This paper was "Color Blindness and Anomalies of Vision", J. Soc. Mot. Pict. Eng., vol. 26, No. 6, pp. 616-36 (June, 1936). We have heard expressions from some, knowing this to be a piece of routine writing following instructions, wondering what Dr. Judd would do if he were really interested and put his mind to the job. (No blue pencil here, Dr. Judd.)

THE COLORQUERY AND VISIONNAIRE

Question 11. What causes dark hair to turn gray and white?

Ans. There is a popular belief, we are tempted to say a superstition, that gray hair is caused by worry. We shall not test the hypothesis for lack of reliable objective measures of worry, also because of other lacks. We are rather inclined to credit the explanation which relates the whiteness of aging hair to the whiteness of young Easter lilies and of fresh snow. These all, and some artificial substances, as enamels, are mixtures of optically unlike components. White hair has air bubbles replacing dark pigment and dispersed in the hair protein substance; lily petals have a similar dispersion, and snow also has air enmeshed in its crystals. Enamels have one solid dispersed in another; there are "frits", as fluorides, of low refractive index, and "opacifiers", as tin oxide, of very high refractive index, the glassy medium being intermediate. Whites are also obtained in clouds (water dispersed in air) and foams (air dispersed in liquids). When light penetrates a mixture of finely divided materials of different refractive index, it is diffusely reflected; and the greater the relative refraction the sooner

will the light be returned to the air and the greater the reflection. Since a larger difference in two refractive indices results in fewer internal reflections, there is less absorption and more reflection, and the result is a "whiter" medium. Of course gray hair is hair which has reached only senescence, not senility. If you think this explanation is no good, we'll not worry; our hair might turn gray. Or would it?

COURSES IN "COLOR AND ITS APPLICATIONS"

We have received literature describing Science Progress Courses for the Fall Term 1938-1939 at New York University, including a course of twelve lectures under the quoted title. The course is to be conducted by Mr. Herbert Thompson Strong, who will give the first lecture on October 24, on the subject What is Color? We shall discuss the course of lectures in our next issue; but we shall give at this time the subjects and speakers for three more lectures which will occur before our next issue goes to press. These are: (1) Color in Nature; guest speaker, Dr. William Beebe, Naturalist and Deep-Sea Explorer; date, October 31; (2) Color in Science; guest speaker, Mr. John J. O'Neill, Science Editor, Herald Tribune; November 7; (3) Color in Industry; guest speaker, Mr. Howard Ketcham, Color Counselor, E. I. Du Pont De Nemours Company; November 14. Any one wishing information about these courses should address Professor H. H. Sheldon, New York University, 20 Washington Square North.

EIGHTH ANNUAL MEETING

Plans for the Eighth Annual Meeting, to be held in New York in February, 1939, are under way. M. Rea Paul is chairman of the committee on arrangements, Wm. F. Little is a consulting member, Sidney M. Newhall is in charge of the afternoon technical session, and Richard G. Slauer is in charge of the popular session to be held in the evening. The subject of the afternoon session will be of a psychological nature. The American Psychological Association has been invited to co-sponsor the meeting.

CALLING ALL MEMBERS

In October each delegate and member will receive the third and final set of color name charts. The system of naming, as you all know, has been officially adopted by the Council, but there is still room for change in setting boundary lines if individual members will make their criticisms and suggestions known to the committee.

This is perhaps the most important piece of work the Council has undertaken to date, and its success lies in the cooperation of representatives of all Council groups, in setting boundaries that will be satisfactory to each group. Some members have indicated that they are waiting until all charts are in their hands before going over the work in detail. Meanwhile, only five members have actually sent suggestions and criticisms to Dr. Judd's committee: three delegates of the American Psychological Association, one representative of the Optical Society of America, and one from the American Association of Textile Chemists and Colorists.

How about getting out your copies? Look them over in detail. See whether you could agree to calling the sample on page one a "weak red" - or do you prefer "dusky red"? If you agree with the committee, tell them so. If you do not agree, give them substitute suggestions.

The committee is calling all members. Tune in on their work!