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INTER-SOCIETY COLOR COUNCIL

NEWS LETTER No. 71

JULY, 1947

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NEW DELEGATES AND INDIVIDUAL MEMBERS

The Federation of Paint and Varnish Production Clubs has recently concluded an "alliance" with the Oil and Colour Chemists' Association of Great Britain, and in consequence has appointed two O.C.C.A. members to fill the last two F.P. & V.P.C. vacancies in the delegation to the Inter-Society Color Council. These new delegates are: Mr. George A. Campbell, Davenport, Stockport, Eng., and Mr. H. Gosling, Stockport, Lancs., Eng.

Mr. Don Schreckengost has been appointed by Mr. John D. Sullivan, president of the American Ceramic Society to replace Prof. A. S. Watts, now retired. Mr. Schreckengost is an active member of the Design Division which this year held an all-day color session developed in cooperation with the ISCC. Mr. Victor H. Remington has been appointed a voting delegate of the ACerS delegation in place of Dr. Campbell Robertson, who remains, however, as a non-voting delegate.

We are glad to welcome these new delegates along with the following individual members elected at a recent meeting of the Executive Committee:

Henry Bankoff, New York City, whose work deals principally with photo-engraving reproduction, ink, paper and paints; interested in color in the graphic arts since 1923, a member of the AAPL, the American Veterans Society of Artists, Photographic Society of America (Technical Division), and the Photo-Engravers' Art Society;

Harold Lloyd, Beverly Hills, California, who is interested in all problems pertaining to color, particularly color theories, with an interest that goes back many years to the day when Harriet Taylor of Favor, Ruhl & Co., Chicago, sold him his first color chart;

Norman J. Mooney, Detroit, Michigan, Color Advisor, Automotive Division of E. I. du Pont de Nemours & Co., who works with synthetic enamels and lacquers and is interested in color systems, new dyes and pigments, and in fashion trends;

Nathan H. Pulling, Cambridge, Massachusetts, particularly interested in photographic color reproduction and color vision in connection with his present studies for the Ph.D. degree at the Biological Laboratories of Harvard University.

NEW COMMITTEE ON PROBLEM 7

Many years ago three problems that were somewhat related were established by the Council: Problem 6, A Survey of Color Terms; Problem 7, A Survey of Color Specifications; and Problem 8, A Survey of Color Problems. Early work was done to gather information concerning these three subjects from each member-body of the Council, so that members might know the status of all work on any one of these subjects within each member-body. Problem 6 seemed to be the one of greatest interest and the one of greatest activity among member groups. In 1939 a 42-page mimeographed report, A Comparative List of Color Terms, was published by a committee on Problem 6, then under the chairmanship of Forrest L. Dimmick. A new report, by a committee headed by Sidney M. Newhall, is now nearing the publication stage. It is perhaps as important a piece of work as has been done within the Council.

Closely related to this is the matter of color specifications as they are adopted, or are under discussion, within the Council's member-bodies. In February the Executive Committee voted to re-establish a committee on Problem 7. Within the A.S.T.M., T.A.P.P.I. and a number of other member bodies, specifications having to do with color and appearance generally are now on record or under discussion. If, through the Council, it were known what specifications are already adopted, and what ones are under discussion -- even if the work be limited to a comparative list such as is in preparation by the committee on Color Terms -- it was thought that a major contribution could be made. Certainly some of the men now working on specifications within committees of the member associations were the very ones asking for information as to what other associations were now doing, or had done, in regard to the same or similar subjects. A. H. Croup, of the T.A.P.P.I. delegation, Richard Hunter of the ACerS delegation and member of A.S.T.M. committee groups, Walter Granville, vice-chairman of the A.S.T.M. delegation to the Council, were agreed that something of the indicated sort should be done. The new committee, as recently appointed by the Executive Committee, consists of these three, with Granville as chairman and the addition of Allan E. Parker to represent the I.E.S. (he is chairman of the I.E.S. committee on Standards and Nomenclature). On Mr. Granville's recommendation, other members to represent other member bodies will soon be appointed.

Coordination of work among our member associations regarding color terms and color specifications needs the groundwork of factual information that will be supplied by the Newhall and Granville committees on the respective Problems 6 and 7.

APPOINTMENTS MADE TO A. S. A.

Appointments by the ISCC chairman: Carl E. Foss, delegate; Norman F. Barnes, alternate, to serve as Council representatives on A.S.A. committee Z 55, Colors for Industrial Apparatus and Equipment.

COMMITTEE MEETINGS HELD

On June 19 a meeting of the Executive Committee was held in Washington. In addition to items reported elsewhere herein, the name of Miss Josephine Grove was added to the committee on Problem 6, Color Terms; a committee on Problem 14 was discussed, with Dr. R. H. Osborn appointed as chairman (more about Problem 14 in the next News Letter); a committee to nominate officers and counsellors for 1948-9 was appointed, with instructions to submit two names for each office (excepting those of secretary and treasurer): D. B. Judd, F. L. Dimmick and S. M. Newhall;

the time and place of the next meeting was set: March 2 and 3, 1948, in New York City, just prior to meetings of the O. S. A.; Walter Granville was appointed chairman of a committee to develop a program for Wednesday, March 3, to be based on suggestions and discussion held at the Executive Committee meeting; and the date and place of the next meeting of the Executive Committee was set for October 22 in Cincinnati.

On June 20, a group interested in the study of Small Color Differences met at the National Academy of Sciences in Washington at the suggestion of Dr. R. C. Gibbs, chairman of the Division of Physical Sciences of the National Research Council. This was the third meeting of the group, the other two having been short, informal meetings, one held after an evening meeting of the O. S. A. last October, the other at New London, Conn., in April. A report of the all-day Washington session will be referred to the O. S. A. and the I-S.C.C. before any action is taken. All persons known to have an active interest in research in this field were present or invited.

On June 21, an all-day session of the newly established subcommittee on Problem 2, Color Names, was held at the National Bureau of Standards, Washington. The chief purpose of the present committee is to make such revisions in the ISCC-NBS system of color names as are necessary to make it in better accord with common usage and understanding. A number of related problems were discussed, and as a result the scope of the revision may be extended to include a number of appendices that will supply information related to the boundaries of the revised portions of the color solid of the given names.

COUNCIL DESCRIBED TO ARMY-NAVY-NRC VISION COMMITTEE

At the May 27-28 meeting of the Army-Navy-NRC Vision Committee, of which Captain Charles W. Shilling is chairman, your ISCC secretary was invited to report on the general activities of the Inter-Society Color Council. This was done, the transmission of the information being facilitated by distribution to committee members of copies of the newly revised Council booklet now available to all Council members.

CALIFORNIA COLOR SOCIETY

Concerning the interesting activities of this group we have had several letters in recent months signed by Mr. Herbert Bearl Palmer and Mr. Albert H. King, design and color consultants. As noted in the May News Letter, officers of the society for 1947 include: Albert H. King, President; Frank Wilbar, Treasurer; Norman Bilderback, Secretary; Herbert Palmer, Executive Correspondent; Bruce Inverarity, Chairman of Publications.

Mr. Palmer sent us blow by blow accounts of the first two meetings, which were in March. One was a "stump the experts"-type meeting. The panel of experts included: Dr. Hilaire Hiler, author and color expert, painter and critic; Mr. John Bork of the Robert Rose Co.; Mr. Frank Wilbar, manufacturer of a one-shot color camera; Dr. Harold Lutz, optometrist; Mr. G. Schaeffer, Western representative of Eastman Kodak Co.; and Dr. R. Bruce Inverarity, instructor in color theory of the Fred Archer School of Photography. The tenor of the questions, supplied by the members, of whom some fifty were present, may be judged by the following: Has color preference an historical evolution within any culture group(?); why does Mr. Albert H. King, colorist, refrain from wearing colored ties(?) (a restricted use of the term -- Ed.); why is a lobster red, after cooking (?); what governs color preference in clothes(?); how does animal sensitivity to the visual spectrum differ from human sensitivity(?); what is meant by the "primitive" use of color(?); what color has high shock value, and why(?); what is the relation between pigment size and hue(?);

how can an artist control color locally on color film(?); what printers are seriously considering replacing the plate process with a continuous photographic process (?) (work of Hubner, photo-engravers, sighted); how did Expressionists differ from Impressionists; what colors are most important symbolically (?); can people dream in color(?); can insects see in color; what colors attract and repel insects(?); etc., etc. Wit and good fellowship was the order of the day; and there was expressed sentiment for repetition of this type of meeting.

On March 20 Mr. Ralph Evans, chairman of the Council, though ill with a bad case of allergy and blood poisoning, met with the Society at Los Angeles and was rewarded by a turnout of almost three thousand persons who jammed the new auditorium of the Art Center School there. His talk on Lighting, similar to those he has given in the East, was very well received; and the society was besieged with requests for copies of the talk. Mr. Evans met with the executive council of the society before the meeting at the home of Mr. King.

The May meeting, held on the last Thursday of the month as is the society's custom, was a symposium on the "Color Theories of Ostwald." Mr. Palmer states that the group was amazed at the fair and objective treatment of those ideas by the chairman, Albert H. King, who happens to prefer the Munsell system "for personal and scientific reasons." He was heckled by Arthur Millier, art critic of the Los Angeles Times, and S. McDonald Wright, well known painter and author.

The June meeting, with Mr. Wilbar in the chair, included a similar symposium on the "Munsell Color Solid and Color Notation System." Mr. Gustave Plochere also participated and made some comparisons of the Plochere Color Guides and the German Baumann Color Guide. Herr Baumann was recently heard from in the Russian zone of Germany and he mentioned to Mr. Plochere that despite the hardships he is going to start up his research again. In addition, chairman Wilbar read in full Dorothy Nickerson's paper delivered before the American Ceramic Society and the International Philatelic Society. Incidentally, this is to be made into a booklet; it includes a comparison, originating with Carl E. Foss, of colorant mixture, color mixture and visually equi-spaced color scales. Among the 250 persons present were Mr. Fred Bond, author of a recently published book referring to the Munsell system, and Mrs. Bond, a Chicago Art Institute student who has taught Munsell; also Mr. William Manker, chairman of the Design Section of the American Ceramic Society.

July and August meetings have scheduled talks by the well known color psychologists J. P. Guilford and Harry Helson, regular and visiting professors, respectively, at the University of Southern California. Mr. King's interesting letter detailing accounts of meetings includes a folder on courses at the Summer Session of the Research School of Color Design of Fremont University. The faculty includes Drs. Hilaire Hiler and R. Bruce Inverarity, active in the California Color Society meetings. On the back of the folder is a splendid appreciation of Hilaire Hiler written by Miguel Covarrubias, well known painter.

Along this same track, since we have already made our readers somewhat familiar with the work of Mr. Hiler and Mr. King, we may mention some biographical data concerning Mr. Palmer, designated by the society as "executive correspondent." Besides taking two degrees from New York University he took advanced study at the NYU Institute of Fine Art; was instructor in the New York School of Printing and other New York Schools; Lecturer on Composition, Fred Archer School of Photography, Los Angeles; Aeronautical Engineer and Chief Statistician, El Segundo Plant, Douglas Aircraft Co.; Color Consultant, Eagle Woolen Co., Hollywood; Contributing Editor, Minicam Photography; industrial designer: Bearl of California products; and

author of articles in the fields of design etc., in Design, Educational Screen, Nature Magazine, Boston Business Magazine, School Arts Magazine, Science Education and others; home address 4151 Third Avenue. We shall hope that our members in the East as well as on the West Coast will get in touch with Mr. Palmer and the other members of the thriving California Color Society; and we take this opportunity of thanking Mr. Palmer, Mr. King and others for keeping us so well informed of their activities.

A FORWARD THINKER

In recent issues of the News Letter in which we have discussed the relation of color to chemical structure, we pointed out that Dr. E. Q. Adams, now convalescing from an operation, was one of the first to realize that it is the electrons (rather than atoms, as previously believed) that are the efficient vibrating portions of colored molecules responsible for light absorption and color. In a critical bibliography in the April issue of Textile Research Journal we state that the paper by Adams and Rosenstein, J. Amer. Chem. Soc. 36, 1452-73 (1914); was "the first one which gave lucid arguments to show that it is not the vibrations of atoms but the oscillations of electrons which are responsible for intense absorption (and color) in dyes." The color changes of certain triphenyl-methane dyes were comprehensively treated.

Therefore we were not surprised, though for some years we had been in the habit of thinking of Dr. Adams' clear reasoning as being directed against problems of physics and color, to learn from a recent book that in at least one other branch of chemistry, Dr. Adams was a leader in thought. In 1915 he pointed out that the ionic dissociation constants of the amino acids (those substances so important to life) "are inexplicable except on the assumption of dipolar-ion structure" (E. J. Cohen and J. T. Edsall, "Proteins, Amino Acids and Peptides," 1943). Adams' work did not attract the interest it deserved until a paper by Bjerrum (1923) focused attention on the subject. The book by Cohen and Edsall reproduces Adams' closely knit argument. In this field as in the relation of "color" (absorption spectra) and chemical structure, it was several years before other authors started orthodox theory running along trails blazed by Adams. We have run across similar situations in other fields too. Those of us who sat in at the meetings of the present OSA Colorimetry Committee from its inception in 1933 have often felt the weight of his arguments and the fertility of his suggestions.

With these things in mind, the Editor sought out Dr. Adams with a plea to supplement his own knowledge of Adams' forward thinking with direct statements (reluctantly extracted) from our subject himself. We enjoined him to avoid all feelings of modesty in view of our purpose, which was not to exalt a person but to stress the importance of unorthodox and forward-looking thinking to progress. We learned more exactly, as we already knew in a general way, of other examples in the fields of chemistry, physics, nomenclature, engineering, photometry, colorimetry and so on. Illustrating his work in these manifold fields and the breadth of his exact knowledge are many papers which have come to our attention. In engineering, for example, there were papers (jointly with others) on "Physics in the Metal Industry," "Flow of Heat through Furnace Walls; the Shape Factor." In physical chemistry, besides the paper already referred to, there was a 1916 paper on "Relations between the Constants of Dibasic Acids and Amphoteric Electrolytes" (now almost a classic), and such papers as "The Electrostatic Virial of Strong Electrolytes."

In colorimetry, besides his important contributions to the work of the Colorimetry Committee, especially in working out the framework and many details of the finally-adopted colorimetric system based upon a psycho-physical definition of color (one group having wanted a physical definition and another a psychological definition),

there are his well known papers dealing with the concept of "chromatic value" and related concepts and the theory (published with Cobb) on which that concept was based. In view of the insistence by Moon and Spencer for allowance for the state of adaptation, it should be remembered that the Adams and Cobb equation (which D. B. Judd frequently uses) contains a constant which is adaptation brightness; this was published many years earlier.

So it went in other fields. In an early paper Adams discussed the hyperpseudosphere which subsequently became known as the "De Sitter universe." In a letter from the hospital written the day before his operation, Adams informed us that J. H. Hildebrand's well known "Principles of Chemistry" contains a table of the periodic system of the elements which he credits to Julius Thomsen, "although the table has not a single feature that was original with Thomsen." He got the table from Adams' "A Modification of the Periodic Table," published before the First World War. But most surprising of all -- yet not so surprising when one knows the quality of Adams' mind -- was a fact we learned earlier: That G. N. Lewis dissuaded Adams in 1917 from publishing a paper which would have anticipated the famous Lewis-Langmuir theory of valence. Langmuir did offer Adams, so the latter says, a chance of simultaneous publication; but Adams was too busy at the Color Laboratory to get the manuscript ready for publication; and "some of the material in his second paper was taken from my unpublished manuscript" (a copy of the latter is offered not as proof but rather as a matter of philosophic interest.) Other examples are known to us, as in the fields of statistical treatment of data and in radiation; but we have already overtaxed our available space in this article. But we shall close with the mention of a different type of offering from Adams' pen. Adams is a poet; and moreover, a poet with a sense of humor. Perhaps sometime we can find the space to publish some of his work written in lighter vein.

A trace of that sense of humor is evident in the last line from the hospital: "As per your request, I am not being modest." Actually, we think that our insistence should have been characterized by a stronger word than "request." But all those who know Dr. Adams well will know that he is less interested in forwarding persons, least of all himself, than in forwarding ideas. (Our last word from Dr. Adams is that he had left the hospital and was convalescing satisfactorily at his sister's home in Philadelphia.)

HARRISON'S BOOK ON GLOSS

Some months ago we received from R. S. Hunter, himself a well-known author in this field, review of V. G. W. Harrison's "Definition and Measurement of Gloss"; The Printing and Allied Trades Assoc. (PATRA), Charter House Square, London E. C. 1, Eng. (1945); pp. vi + 145, Figs. 28; price 10/-net. Since at the time the News Letter was badly crowded for lack of space, and the review was scheduled for publication in the April issue of the Journal of the Optical Society of America, we did not publish a copy. Also, we shall content ourselves with Dr. Hunter's first sentence, viz. "This is believed to be the first book ever to appear on the subject of gloss." We add only that Hunter's estimate of the value of the work was quite favorable, and that he regards it as of interest well beyond the fields of the paper and printing trades.

EXPLAINING THE ATOM

We were astonished, when we sat at dinner at the Submarine Base in New London next to the author himself, to learn that Professor Selig Hecht, biophysicist and specialist in such things as color vision, had just published a book on atomic physics. On a little further thought, we were ashamed of our astonishment, for in the years that we have known him, we should have learned that he is not the sort of

man to stand pat in any neatly labelled groove. So we thought it our duty to tell our readers that they should not be astonished; and moreover, since a score of reviewers couldn't be wrong, our readers ought to read Hecht's book. (Maybe reviewers are sometimes wrong.)

But due to extreme pressure of other work -- we still have to pretend to a semblance of the work for which we are paid by a corporation -- we had to turn over the half-done May News Letter to our Secretary, who appears to have an infinite capacity for getting things done. And since meanwhile a number of reviewers had explained the success of Hecht's "Explaining the Atom," we let the matter drop and did not ask Miss Nickerson to prepare a review. And by now the book has been so much discussed that it is no longer news. We add only that the book is published by The Viking Press, New York, and that the price is $2.75.

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