

Note + return

INTER-SOCIETY COLOR COUNCIL

NEWS LETTER NO. 4

Notice from the Secretary

A letter from the Chicago Lighting Institute, requests the Inter-Society Color Council to sponsor a color exhibit in Chicago. The Institute is a non-commercial organization sponsored by the Electrical Lighting Industry to serve the middle west. Their object is to demonstrate correct lighting for every purpose. These demonstrations are accompanied by popular non-technical lectures. Attendance has averaged 6,000 per month. They now wish to present an exhibition on color to be held on the thirty-sixth floor of the Civic Opera Building. On advice of our Executive Committee, we have informed the Institute that our Council is not organized in such manner that we could jointly cooperate in sponsoring a color exhibit, but that many of our member bodies might wish to participate. All members desiring individual participation in the proposed color exhibit, should communicate and make independent arrangement with Mr. C. W. Zersen, Chicago Lighting Institute, 20 North Wacker Drive, Chicago, Illinois.

Attached is report of Committee on Measurement and Specification, submitted by Dr. I. H. Godlove, Chairman, at the last meeting of the Inter-Society Color Council.

All of the news items on hand are contained in the present communication. Additional items must be supplied by our members before the next letter can be prepared.

In News Letter No. 3, the following correction should be made. Abstract on the visibility curve of a single receptor cell should be credited to Dr. C. H. Graham of Clark University, instead of Dr. F. L. Dimmick.

M. R. P.

Publications on Colorimetry and Spectrophotometry from the National Bureau of Standards, Letter Circular No. LC-398

The letter circular is divided into three parts: Part I gives the titles and references to 92 publications primarily related to Colorimetry, and gives a brief abstract of 78 of them; Part II gives the titles and references to 98 abstracts, reports, letter circulars, etc., not included in Part I; and Part III gives titles and references to 53 miscellaneous publications not included in the first two parts.

Standards of Pottery Description by Benjamin March,
Museum of Anthropology, University of Michigan - No. 3, February 10, 1934

This 55-page booklet is designed to establish a definite method for describing ceramics. The author points out that publications on ceramics would prove of greatest value if a form of description was adopted that treats in concise, logical order, all of the characteristics of pottery, and not simply a few that hold

special interest for the investigator. Furthermore, the description should be established in such terms as to be comprehensible to investigators in related fields. Standards of pottery description are then taken up to include body, hardness, surfact-texture of both glazed and unglazed ware, crackle, use of a ceramic pantograph, methods for recording findings, and a very excellent chapter on color. Mention is made in this chapter of Ridgway's standards, Maxwell disks, and the Maerz and Paul "Dictionary of Color".

A Bibliography of Experimental Aesthetics, 1865 - 1932
by Albert R. Chandler. Ohio State University Studies,
Bureau of Educational Research Mimeographs, No. 1, 1933

A recent bibliography of experimental aesthetics includes a total of 801 references classified in 8 sections. Section 2, including 138 references, is entitled Color. The few references considered most important are marked with an asterisk.

A Maxwell Triangle Yielding Uniform Chromaticity Scales
by Deane B. Judd, Bureau of Standards.
Abstract of paper submitted O.S.A., February, 1934:

The length of a line on the Maxwell triangle of the I.C.I. coordinate system for colorimetry is an approximate index of the chromaticity difference between the stimuli represented at the extremes of the line; the O.S.A. coordinate system also has this property, and to about the same degree of approximation. However, sufficient data on chromaticity sensibility have now been gathered to show that the Maxwell triangle of both systems can be improved upon in this respect. It has been found possible to effect very marked improvement, so much so that the new coordinate system has been called the "uniform-scale system" because it is so closely true that uniform chromaticity scales may be derived from it merely by stepping off equal intervals on the Maxwell triangle. The agreement of scales so derived with extant data on chromaticity sensibility will be shown graphically. This includes sensibility to wave length change in the spectrum and at colorimetric purities less than one, sensibility to purity change for various purities and dominant wave lengths, and sensibility to color-temperature change.

An important application of this coordinate system is its use in finding from any series of chromas the one most resembling any other given chroma, for example, the finding of the nearest color temperature for any non-Planckian stimulus. The method, of course, is to draw the shortest line from the point representing the non-Planckian stimulus to the Planckian locus. It should be noted that the coordinate system derived is not the only one which will yield a uniform-scale triangle. The area representing real stimuli may be uniformly expanded or contracted, moved about the triangle, or reoriented without injuring the agreement with sensibility data. On this account, there is promise that it can be incorporated into many of the theories of vision such as that of Hering, or the Hecht development of the Young-Helmholtz theory, or the zone theory of G. E. Muller.

Standardization of Lovibond Red Glasses by K. S. Gibson and Geraldine K. Walker, Bureau of Standards. Abstract of paper submitted O.S.A., February 1934:

The method of standardization of the Bureau's Lovibond red glasses was reviewed. Over 2,000 red glasses have now been calibrated in terms of the Priest-Gibson (N") scale and unit which were established in 1927. Results on the first 1,000 glasses compiled and analysed were illustrated.

Further study of the N" scale has been made, including extensive comparisons of values of N" derived both from spectral transmission and from direct comparison with the Bureau's standard glasses. The additive and consistent nature of the N" scale has been confirmed by this study.

Considerations in Color Standardization by M. Rea Paul - Paper Trade Journal, Vol. XCVII, No. 19, May 10, 1934, page 39. Paper presented before the Technical Association of the Pulp and Paper Industry:

Standardization activities in different industries are briefly touched on, and standardization work with respect to color measurement and definition by American Society for Testing Materials and the Optical Society of America is mentioned. A brief description of the Dictionary of Color is given, together with consideration of the physical and psychological concepts of color, with mention of means for their specification, particularly with reference to paper.

"The Colorists" meet again in Washington. Abstract of minutes prepared by Miss Dorothy Nickerson:

Sixty members of a group known as "The Colorists" held their second dinner and meeting in Washington, Friday, February 9th, at the Arts Club. Dr. K. S. Gibson and Dr. Deane B. Judd, both of the Colorimetry Section of the Bureau of Standards, gave brief talks. Dr. Gibson demonstrated standardization of railway glasses, and Dr. Judd demonstrated a number of anomalies of the normal eye.

Dr. Herbert E. Ives of the Bell Telephone Laboratories presented a paper which he had originally given as the Thomas Young Oration to the Physical Society in London last fall, entitled "The Simplification of the Artists' Palette". This paper constituted a striking example of the direct thought applied by the scientist to problems of the artist. It covered a study of the minimum number of colors required to produce the ideal palette for artists' use. Spectral reflection curves were shown representing the colors that were theoretically necessary to provide the artist or printer with three pigments, from which other colors could be obtained. Dr. Ives demonstrated both additive and subtractive mixtures, employing a black screen in the case of the former, and a white screen in the case of the latter. A projection apparatus with filters was employed to produce additional colors by intermixture.

Artists, architects, architectural sculptors, scientists from many Government departments, and representatives from the Paint and Varnish Institute took part in the discussion which followed the presentation of these papers.

Gloss

Sub-Committee XVIII, Committee D-1 of the American Society for Testing Materials, is engaged in the development of an adequate definition to cover the term "gloss". Any comments that members of the Council may care to offer with respect to an adequate definition, if addressed to the office of the Secretary, would be appreciated by the members of this committee.

All notices, abstracts, and requests for further information regarding any of the items appearing in this letter, should be addressed to M. Rea Paul, 105 York Street, Brooklyn, New York

June 4th, 1934