

INTER-SOCIETY COLOR COUNCIL

NEWS LETTER NO. 10

Notice from the Secretary

Many of the items furnished this office, that would provide excellent material for the News Letter, are submitted as entire papers that must be abstracted before they can be used. It is suggested that authors furnishing such papers, also enclose an abstract. Additional items would be welcome at this time that would be of interest to the Council members.

Copy of the report presented to the American Psychological Association by their delegates on the Inter-Society Color Council for 1934 and 1935, has just been brought to my attention. This might serve as a reminder to other delegates that the member body they represent is also entitled to receive a report, and this duty should not be overlooked by the various delegates.

M. R. P.

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Carl Foss, International Printing Ink Company -

THREE MONOGRAPHS ON COLOR. The following word of explanation has been provided by the authors:

"These books were not written by one man, nor even a small group of individuals. They represent the combined effort of several individual laboratories contributing their own special knowledge. All of the laboratory findings, as set forth in these books, were reviewed repeatedly and progressively by internationally known physicists, chemists and designers. The work is made possible through the cooperative effort of Ault & Wiborg Corporation, Ault & Wiborg Carbon and Ribbon Company, Inc., In-Tag Company, United Color and Pigment Company, Inc., and The International Printing Ink Corporation".

Color in Chemistry is the title of the first book, eighteen pages in length, which opens with the early use and gradual development of chemical colors. A few of the fundamentals of chemistry are then touched on, and the atomic weights of a representative group of chemical elements, together with their identifying symbols, are presented. Organic and inorganic chemistry are

then briefly considered, the chemistry of organic colors enlarged, and the chief source of raw materials covered.

Color as Light is the second book in the series, comprising twenty-one pages, devoted to color from the point of view of the physicist. Here, wavelengths as fundamental units of measure are described, as are also, reflection, absorption and transmission. The separation of white light into its component parts by means of a prism is illustrated and discussed. Color as a sensation is covered, together with method of designating a color in terms of the sensation it produces. This second book finally concludes with a plea for the adoption of a general color terminology that will permit a freer exchange of color knowledge.

Color in Use is the title of the third book of the series, comprising twenty-nine pages, and is presented from the point of view of the artist and designer who is especially interested in color as a sensation, or as seen by the eye. This book touches on color names and the three attributes of color, indicating how these differ from one another. The Munsell method of designating color is described. Samples of simultaneous contrast, and positive and negative after-images, are illustrated. Legibility for distance viewing is briefly covered, and also the theory of color balance, complementary hues, triads, etc. After touching on emotional associations, examples of color relationships are provided, together with masks inserted in the back for viewing various hue relationships as set forth in the plates.

All three books are profusely and artistically illustrated -- "Color in Chemistry" showing actual samples of pigments, together with their chemical symbols. "Color as Light" carries as a frontispiece, a vivid reproduction of the visible spectrum, with different regions identified by wavelengths. In addition, popular marginal illustrations in color provide a simple means for assisting in explaining the text matter. Artistic presentation of various color relationships has been provided in the last book of the series, to show the manner in which various principles of harmony may be applied. Throughout the three monographs, care has been taken to adhere strictly to a popular explanation of color from all three points of view.

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H. P. Gage, Corning Glass Works -

METHODS OF MEASURING VISIBLE AND TOTAL ENERGY TRANSMISSIONS OF HEAT ABSORBING GLASSES. Transactions of the Illuminating Engineering Society, Vol. XXX, No. 5, May 1935.

Heat-absorbing glasses may be made by using reduced iron as one of the coloring agents. This provides a strong absorption band which extends

further towards the infrared than towards the visible. A low expansion glass exhibiting this desirable selective property has been developed. Transmission properties of this glass may be calculated if the spectral transmission of the glass and the spectral energy curve of the source are known. Sunlight is not of constant composition and for this reason heat transmission of the glass differs from time to time both as measured and as calculated. It is recommended that incandescent lamps be used for practical measurements of these glasses, and specifically that heat transmission be measured with a tungsten lamp operated at 3,000 deg K using a thermopile-galvanometer combination, first without then with the glass interposed. Light transmission is to be measured with a visual photometer using tungsten lamps operated at 2360 deg K. The difference caused by change in color temperature of the light source in the heat transmission measurements is large, necessitating close control, while the color temperature of the source does not greatly change the readings of the visual photometer.

Recommendations as to limits of heat and light transmission of acceptable glass are given on a basis of good commercial practice.

A combination of heat-absorbing glass and a purplish glass is illustrated which alters the light of a tungsten lamp to simulate daylight and at the same time removes most of the heating effect.

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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, N. Y.

September 30, 1935.