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INTER-SOCIETY COLOR COUNCIL

NEWS LETTER NO. 85

NOVEMBER, 1949

News Letter Committee:

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OFFICERS AND COUNSELLORS FOR 1950-51

On November 28, 1949, letter ballots received from voting delegates of the 19 member bodies and the individual-member group were counted at a special meeting of the Executive Committee in the office of the secretary. Out of a possible 60 ballots, 48 were received. The following officers and counsellors were declared elected to serve during 1950-51:

I. A. Balinkin (ACS)	- Chairman
A. H. Croup (TAPPI)	- Vice Chairman
Dorothy Nickerson (OSA, IMG)	- Secretary
Norman Macbeth (IES)	- Treasurer
I. H. Godlove (AATCC)	- Counsellor
C. R. Conquergood (NAPIM)	- Counsellor
Harry Helson (APA)	- Counsellor
D. L. MacAdam (OSA)	- Counsellor
E. I. Stearns (AATCC)	- Counsellor

OPERATION RAINBOW

In ISCC "Operation Rainbow" there is a part for every Council delegate or member who will participate. If you could hear but half of the plans of Helen Taylor's committee* for our first dinner meeting (for a Council dinner is a new departure), you would put March 8, date of the dinner session of the ISCC - a real color frolic - on your calendar right now. Among other things they intend to build is a rainbow. What do you have to contribute? Door prizes! Souvenirs! All to be colorful. If the product you make is colorful, how about supplying samples to be on display as part of the "Rainbow" - first for display, then for distribution. Large single color items will be prizes; the many small but colorful items will be souvenirs. So if you have something that can help build this rainbow please write to Mrs. Taylor* offering its inclusion. We would like to pile a table high with souvenirs of the color products represented among us - the trickier the better, though the dead serious (but not solemn) also has its place. Each and every Council delegate and member is hereby invited to participate in making this a dinner session to remember.

As for general meeting plans: March 8, 1950 is the date; the Keystone Room, Hotel Statler, New York City is the place.

Morning: Committee discussions; Business session

Afternoon: Color as Used in Architecture, Design and Decoration

for American Designers Institute, Mr. Scott Wilson
for American Institute of Architects, Mr. Waldron Faulkner
for American Institute of Decorators, Mr. Karl Bock
for Society of Industrial Designers, Mr. Egmont Arens

Dinner: Operation Rainbow, with plenty of surprises

Evening: Illustrated lecture on color, Mr. Ralph Evans, Eastman Kodak Company.

Later we shall tell you more; later we shall ask for advance dinner reservations. They must be in advance because the hotel needs a 24-hour notice, and the committee needs more if all who come are to be taken care of equally well. There will be food for all, but the special color items have to be planned for the number expected.

*Mrs. Helen D. Taylor, Chairman Dinner Committee
100 West Evergreen Avenue
Philadelphia 18, Pennsylvania

I. E. S. COLOR SYMPOSIUM AT FRENCH LICK

The color meeting held at French Lick, Indiana, was a very successful one. Several papers on the I. E. S. general program were of color interest, and on Thursday afternoon, Dean Farnsworth presiding, the entire session was devoted to color. G. B. Buck II, who had left for Denver, was not present, but his paper was read on Tuesday. Gladys Miller gave a fine report, prepared jointly with Janet S. Reynolds of Sylvania. A paper on Friday by C. W. Jerome of Sylvania was presented by Dr. Lowry of Sylvania.

As for the Thursday afternoon session, Dean Farnsworth, as retiring chairman of the I.E.S. committee on color in illumination, presided. His introduction provided a good picture of his committee's activity during the past two years and showed the relation of the I.E.S. and the work of its color committee to the I.S.C.C. The committee was responsible for this very meeting; they had suggested it to the I.E.S. Council. The I.E.S. requested that this color meeting be held, and Norman Macbeth, chairman of I.E.S. delegates to the ISCC, was appointed by the ISCC as chairman of a committee to arrange the meeting. All speakers gave demonstration-lectures, and provided a session that seemed to be thoroughly approved by I.E.S. members present. The speakers, Deane Judd, Ralph Evans, and Isay Balinkin (see News Letter No. 83, page 2, for program) were each acclaimed by some as the best. Dr. Judd put over his seemingly dry subject in a very effective manner. Mr. Evans took three points out of a subcommittee report and discussed these in detail, illustrating each point with a series of slides that grow more beautiful with each lecture he prepares. (Incidentally, his photographer, Miss Jeannete Klute, is a real artist!) Dr. Balinkin's demonstrations on color, including the bouncing balls that "see" reflectance, bouncing back 70 percent or so from white surfaces but close to 0 percent from black, made a real hit. His red, green, blue balls (that see only purple) caused plenty of amusement even as they gave a clear

demonstration of his color point. As for the rabbit he pulled out of a bag in illustration of the necessity for providing a clear statement of all conditions of measurement and perception, as usual, it brought the house down. This simple piece of legerdemain is really very clever - its meaning grows on one long after the rabbit is back in the bag!

Among ISCC delegates and members, their wives and guests, present were the following: E. Q. Adams, Isay A. Balinkin, E. Taylor Duncan, Ralph and Pauline Evans, Dean Farnsworth, Walter and Ginny Granville, Deane B. Judd, W. F. Little and Mrs. Little, Norman Macbeth, J. A. Meacham and Mrs. Meacham, Gladys Miller (seen only on the platform!), Dorothy Nickerson, Lorenzo Plaza, guest from Spain, and Kenneth C. Welch.

WASHINGTON AND BALTIMORE COLORISTS

Mr. C. Eugene Pfister of Chicago, past president of the Men's Garden Clubs of America, vice president of the American Rose Society, and a past member of the Board of the American Horticultural Council, was speaker at the first meeting held at the auditorium of the National Museum on November 28. It was through a mutual interest in color charts and color standards for horticultural use that we became acquainted with Mr. Pfister. His subject "Roses of Many Hues," will be fully illustrated with color slides. The Potomac Rose Society and a number of local garden groups have been invited to join the Colorists in sponsoring this meeting.

For December 15, a round table discussion is scheduled on the subject of "Small Color Differences." Mr. Alfred C. Webber of the E. I. du Pont de Nemours Company in Arlington, N.J., who has been working on the measurement and specification of small color differences in highly chromatic clear plastics will report on the work he has been doing in this field. He will have with him the plastic models his laboratory has built to illustrate both Munsell and I.C.I. color spaces. This is planned as a round-table discussion for those particularly interested in this subject - a new departure in meeting plans.

On January 5, the Colorists will join with the Capital Section of the Illuminating Engineering Society to hear a repeat of the color papers by Deane B. Judd and Ralph M. Evans as they were presented at the color session of the National Conference of the Illuminating Engineering Society at French Lick.

PHILADELPHIA-WILMINGTON COLOR GROUP

The sixth meeting of this group was scheduled as a dinner-meeting on Wednesday, December 7, at the Howard Johnson Restaurant on U.S. Route #1, Media, Pa. It was to consist of an informal discussion, the subject being "Industrial Use of Color for Improved Operating Efficiency." The program was to include the duPont Finishes Division movie on "color conditioning."

NEW INDIVIDUAL MEMBERS

Welcome to the following individual members, elected to membership at a meeting of the Executive Committee on October 27:

Howard D. Baker, Psychological Laboratory, Johns Hopkins, University, interested in the effect of chromaticity differences on visibility; color adaptation; a member of the American Psychological Association and the Optical Society of America;

Peter P. DuBiel, Springfield, Mass., whose work deals principally with plastics, particularly interested in application of color in industry and the reactions and demands of consumer to color; a member of the American Assn. of Textile Chemists and Colorists and the Society of Dyers & Colourists;

Vincent James Eletto, Yonkers, N.Y., whose past work has been in stage-set designing and animated cartoons in the motion picture industry, particularly interested in emotional effects of color on individuals, and the effects and changes of color during the process of still and motion-picture photography;

Joseph Charles Franklin, Institute for Cooperative Research, Psychological Laboratory, Johns Hopkins University, whose work is of a theoretical, industrial, and applied nature and deals principally with paints; problems of particular interest include the effects of color perception, the influence of color on mood, emotions, attitudes, and color as a therapeutic and diagnostic tool; a member of the American Psychological Association;

Walter B. Holcombe, Mt. Vernon, N.Y. with the Motion Picture Squadron of the Army Air Force, interested particularly in color harmony and color photography; a member of the Optical Society of America and the Society of Motion Picture Engineers;

Martin-Senour Company, Attention: Spencer R. Stuart, Chicago, Illinois, chiefly interested in chemical and psychological aspects of color; deals particularly with paints;

Norma Marie Potkanski, South River, N.J., whose work deals principally with paints, particularly interested in visual, arithmetic and logarithmic progressions of hue, value, chroma; the effects of simultaneous color contrast on these, and color emphasis of form, color matching, and after images;

Stewart Seass, Bigelow-Sanford Carpet Co., Inc., Thompsonville, Connecticut, particularly interested in transmittance measurements of dyes and reflectance measurements of dyed wool; a member of the Optical Society of America; and

Cynthia Whitney, Chestnut Hill, Pa., interested in color since 1945, working two years with an architect, one year with Carl Foss.

RALPH EVANS RECEIVES SMPE AWARD

The October issue of the SMPE journal reports that on October 12, 1949, the Society of Motion Picture Engineers presented their Samuel L. Warner Memorial Award, established by the Warner brothers in memory of their brother, a pioneer in the production of sound motion pictures, to Ralph M. Evans for "his outstanding work in color motion picture film and related subjects." Mr. Evans, a Fellow of the Society, is superintendent in charge of the Color Control Department at the Eastman Kodak Company, where he has served in this capacity since the formation of the department in 1946. The function of the department is to maintain quality control on all color photographic processes at the Eastman Kodak Company and to carry on development work on these processes after their release to the public. Prior to the organization of the Color Control Department, Mr. Evans was in the Research Laboratories of the Eastman Kodak Company in charge of the development of color photographic processes. As part of this work he conducted a considerable amount of research on visual effects in photography, and this work is continuing under his direction.

Mr. Evans first came to Eastman Kodak in 1928. Later he was away from the Company for six years, employed by the Twentieth Century-Fox Film Corporation and DeLuxe Laboratories. This time was spent on color photography.

He is past chairman of the Color Committee of the SMPE and is chairman of their delegates to the Inter-Society Color Council. He has served as chairman of the

Inter-Society Color Council and is now a member of its Executive Committee. He is at present chairman of the Color Committee of the Illuminating Engineering Society.

Mr. Evans is well known for his illustrated lectures on color and color photography, which have been delivered in all parts of the country to scientific and technical societies. He has written a comprehensive book called "An Introduction to Color" which divides the subject of color into three sections - physics, psychophysics, and psychology, an approach to the subject for which his years of experience provide a good background. Mr. Evans is a graduate of Massachusetts Institute of Technology where he majored in optics and photography and received the degree of Bachelor of Science in physics.

L.O.F. "DAYLIGHT" COLORS

From individual member Creston H. Doner, director of design at Libbey-Owens-Ford Glass Company in Toledo, we have received an interesting story of a series of seven colors that his company is sponsoring. Chips of these colors molded in Plaskon urea-formaldehyde molding materials are mounted with a black and white picture in which numbers indicate the placement of each color in a typical plant installation. There is a two-page story in the Plaskon Magazine, No. 1, September 1948. The unusual part of the story is that this item is reprinted as a folder with copies of spectrophotometric curves for the seven colors on the outside pages.

The reason for calling these "daylight colors" is that they are near-neutrals in daylight, that is, the colors are built around the color of daylight, which is the main source of illumination in so many industrial plants. Colors 1 to 4 are near-neutrals, beginning with what they call a "tempered white," a blue-green about 8.6 in Munsell value, and considerably less than 1 step of chroma, the other colors in the series darkening in regular steps, about 7,5,4, in value, 1 to 1.5 in chroma. "Being a neutral color it has the ability to shade according to actual daylight, much as the sea or lakes do on sunny or cloudy days." The No. 5 color of the series is a sand-beige, neutral and blended so as not to contrast strongly with the other colors, yet distinct from them when used to highlight a particular work area on manually operated machines. A strong red and yellow, colors 6 and 7, are used to attract attention to fire equipment and hazards.

It is of interest that neither Libbey-Owens-Ford nor its Plaskon Division are manufacturers of paints or surface finishes, but that they select and publicize a color series of this sort because of their interest as suppliers of synthetic resins which do in turn go into surface coatings.

News Letter readers who are interested may write to Mr. Doner for a copy of the story of these colors, complete with samples, and with spectrophotometric curves of those samples. Anyone interested in the materials, or in their use in the production of surface coatings, may also write since the Plaskon group at Toledo - as is true of most large suppliers - has available a laboratory that supplies technical service and assistance to users of their product.

COLOR HELP FOR COMMUTERS

Commuters who run for trains - and who doesn't? - got some help from the Reading Co. recently, according to Philadelphia newspaper accounts. It began using colored illuminated signs over its gates to suburban trains instead of white ones. Each suburban branch has its own color.

Red is for Chestnut Hill, green for Lansdale-Doylestown, yellow for Hatboro-New Hope,

blue for West Trenton and orange for Norristown. Thus commuters won't have to waste time reading. Other things being equal, this will enable you to leave the office a good ten seconds later and still squeak through the gate.

DR. JUDD SPEAKS AT UNIVERSITY OF ILLINOIS

From Dr. Jozef Cohen, department of psychology, University of Illinois, we have a report of a meeting on September 23 when Dr. Deane B. Judd of the National Bureau of Standards, at the invitation of the University administration, lectured on "Color Measurement and Color Theories." His audience, numbering more than 300, was the largest of any University convocation. It was limited only by the size of the room. This, says Dr. Cohen, includes speakers on the "big three": sex, extra-sensory perception, and hypnosis. He adds that Dr. Judd's speech was magnificently received.

There was also a dinner in honor of Dr. Judd, attended by 25 of our interested faculty. Dr. Judd was accompanied by Mr. Lorenzo Plaza of the University of Madrid, who is spending several months in this country studying methods used at the National Bureau of Standards for photometry and colorimetry. The editor adds here his personal appreciation of Mr. Plaza, who also attended the Buffalo meeting of the OSA, as an interesting and charming person.

RIDGWAY CONVERSION TO MUNSELL NOTATION NOW AVAILABLE

Professor D. H. Hamly, Department of Botany, University of Toronto, has published his conversion of the Ridgway color standards in terms of Munsell notation; The Ridgway Color Standards with a Munsell Notation Key, Jour. Optical Soc. Amer. 39, 592-599, July 1949. The report contains a brief description of the method of making conversion, and a 6-page table listing alphabetically the 1044 names of Ridgway's colors, which are widely used in horticultural and biological fields.

Data of this sort make it possible to interpret the results in terms of one chart in a common notation, and thus interrelate color work of many kinds. With publication of the Ridgway key, we now have available conversion data for the colors of the TCCA Standard Color Card and the United States Color Card, for the Color Harmony Manual (Ostwald-Container Corp.), the Plochere system, the first 20 charts of Maerz and Paul. Color charts of each of these systems become more useful by availability of these conversions; in fact, such conversions now make it possible to provide ISCC-NBS designations for the colors of each of these systems or charts.

Professor Hamly has been kind enough to arrange for a supply of reprints of this report for distribution to ISCC delegates and members who wish to have a copy. Since there will not be enough for the entire mailing list, the supply will be held in the secretary's office for distribution. Write for a copy to the Inter-Society Color Council, Box 155, Benjamin Franklin Station, Washington 4, D.C. and it will be forwarded when available. Another paper by Professor Hamly, "Robert Ridgway's Color Standards" appeared in Science 109, 605-8 (June 17, 1949). Reprints of this are available also.

SPRING COLORS

In the last issue of the News Letter we discussed, along with Fall 1949 colors and a revised U.S. Army Standard Color Card, certain 1950 Spring (and even summer) colors. Since then we have received four bulletins on 1950 Spring Colors. Perhaps the most important of these is on the "1950 Spring Rayon and Woolen Cards" of The Textile Color Card Association of the U.S. Inc. According to Margaret

Hayden Rorke, Managing Director of the Association, the Rayon Card features Blossom Pastels and Happytones while the Woolen Card highlights Horizon Pastels and Sand and Sea colors. Especially important among the basic color families will be vibrant rust, copper and henna shades, as well as smart versions of yellow and golden "tones." Strong in the neutral range will be string and burlap beiges, while grays will be bluish. Browns in the fashion line-up will favor warmer tones of the hazelnut and praline types.

In addition to navy, promising are blues in the medium range as the "butcher" variety, while duck, aqua and turquoise also have a firm place in fashion forecast. In the green gamme, "yellowish pineapple" and mint shades are cited, along with "bluish saltwater" and "frosted greens." Reds in the spring colorama are represented by a "vibrant orangy" hue for sports, a lively grenadine type and in the rich peppermint and jolly shades of bluer tonality. Orchid, mauve and heather violet will add further range and appeal.

Turning to the accessory colors, it was announced that the Millinery Color Committee of the Association, representing the straw and felt hat-body industry, has chosen 20 colors for the 1950 Spring and Summer season. From the above described Woolen Card were chosen for felts the 17 colors: Beige String, Burlap Tan, Julep Green, Yellow Wheat, Golden Toast, Silverhaze, Sun Aqua, Tawney Copper, Country Blue, Sailor Navy, Noisette Brown, Tropez Red, Antibes Yellow, Shoregreen, Crushed Tomato, Green Pineapple and Saltwater Green. All of these colors with the exception of the last three on the list have, likewise, been adopted for straws. The three remaining colors selected for both felts and straws, are Orchidmist, from the 1950 Spring Rayon Card, and Arbutus Pink and Sistine from the Ninth Edition Standard. Also specified for straws are the well-known colors, Straw and Burnt.

The 1950 Spring Color Card for Women's Gloves portrays 14 colors coordinating closely with the millinery colors. Twelve of them, also in the millinery collection are: Yellow Wheat, Sistine, Arbutus Pink, Sun Aqua, Beige String, Tawny Copper, Noisette Brown, Silverhaze, Golden Toast, Shoregreen, Country Blue and Tropez Red. The two remaining glove colors are Sunlit Lime, from the Association's spring woolen card and the well-known navy shade, Admiral Blue, which also appears in the women's shoe card for spring.

The Women's Shoe and Leather Card for Spring 1950 also includes 14 colors, under the caption Town Colors and Town and Country Colors. The former group, along with black, features: Kolabrown, Admiral Blue, Cherry Red, Green Pepper, Cognac Brown and Café Brown. In the latter group are included, along with white, Cinnabar, Golden Wheat, Turftan, Misty Gray, Buttercup Yellow, Irish Green, Payred, Blue Sparkle, Admiral Blue and Cherry Red. These colors were adopted officially for spring and summer by the Association acting in cooperation with a joint committee of the Tanners' Council of America, The National Shoe Manufacturers Association, and the National Shoe Retailer Association.

Lest you believe that the Association neglects the men. We report that the fourth bulletin deals with the corresponding Men's Shoe and Leather colors. Officially listed for Smooth leathers are; British Tan, Brown Oak, Tawny Tan, Golden Harvest, American Burgundy, Ranger Tan, Cherry Tone, Cocoa Tan, Natural Tan and Black. For Grained leathers there are only Golden Harvest and Cider Brown, while for Brushed leathers the list embraces Admiral Blue, Rustic Grey, Bermuda Brown, Forest Green, Prairie Brown and White.

DIFFERENCES OF OPINION

Since the ISCC is composed of groups having widely different interests in color, it is natural that the News Letter will often carry items which may not be considered as news by certain of its readers. However, to exclude items of this nature from its pages would deny a considerable number of readers the kind of information they seek and appreciate. It is this premise which prompts the presentation in this issue of certain expressions of opinion about two reviews which appeared in recent issues of the News Letter. While the ISCC News Letter is no place to record or develop the relative merits of the arguments, it is believed that a useful purpose will be served by publication of these letters without further editorial comment, particularly since two of these letters come from the author or his company with a request for publication. It should be added, however, that a News Letter reader who wrote us a letter, not included here, refused permission for publication upon request. - Ed.

The first letter deals with the Villalobos Colour Atlas as follows: Dear Editor: In the review about our Colour Atlas in the May issue of the News Letter written by Mr. Carl E. Foss we note some important omissions, misinterpretations and unproved statements which we think need some elucidation. In the description of the system and organization, the review omits the following features that in our view are important:

a) The general system of the Colour Atlas is built upon Young's trichromatic theory, giving the names Scarlet, Green and Ultramarine to the basis hues.

b) The notation system permits one to identify and to visualize each one of the 7279 colors contained in the Colour Atlas and, conversely, the symbol corresponding to any external color can be, although in absence of the Atlas, approximately conjectured. The nomenclature is universal, and its apprenticeship is reduced to learning and remembering the English names of twelve typical hues; the numerical data corresponding to values and chromaticity being obviously intelligible. Any one can imagine that, e.g., the color designated ET-2-12° is a color having a hue between Emerald and Turquoise; that that color is very dark and is as saturated as its darkness admits. It is not so in the case of the Ostwald system, for instance, in which a symbol, 17 n e, tells nothing to imagination.

c) The basic diagram of spectral series is no longer conceived as a circle of colors but as an hexagon of hues formed by crossing two triangles having in respective vertices the colors we call simple and double. The intermediate hues are no longer spaced according to their intended equal differences, but the positions of equally different hues are subordinate to trichromatic theory. This is another innovation.

d) The spectral lateral index is another innovation that allows one almost instantly to find a color in the Atlas and its precise designation.

e) Neither is there mentioned in the review the innovation which permits our Atlas to make transpositions of decorative schemes at will as easily, and more abundantly, than a musician can in his staff.

f) The perforation of samples is also an innovation. These six features, added to those mentioned by Mr. Foss, permit that the Colour Atlas not only "serve as a reference book much as a number of previous collections," but differently from all existing ones.

The reviewer says that "the Isochrome (vertical) series do not illustrate constant saturation" owing to "what is normally a curve on a hue plane is straightened to a vertical line to fit the right cylinder presentation." We must say that the departing of the curved contour truly corresponding to the series of "straight" colors is a compromise purposely made in view of gaining the practical advantages provided by the direct correspondence of any color with those of equal value and chromaticity in all the 38 hues.

The rectangular organization has permitted the innovation of locating the most saturated color of any chart at the level of its value, without alternating the shape of the charts. This has never been done.

Moreover, we must say that the rectangular pattern is more approximate to the curvilinear than the usual triangular pattern. If we take, for instance, the chart M (Magenta), the saturated color of which is at 11 level, and we trace upon the chart the angle joining the centers of the samples White, M-11-12°, Black, we see at first glance that if the M-19-12° sample were located on the line traced to point W (that is, in 19-1° the difference between that (rose) color and grey 19 is much greater than that of any other pair in the chart. The true place for 19-12° would be approximately 19-7°: nearer to 19-12° than 19-1°. The place for 1-12° in the curve would be near to 1-4°. For all values higher than 4, the rectangular pattern is then notably more approximate to ideal than the triangular pattern. Given the triangular compromise, that allows convenient assemblage of colors both in horizontal and in vertical rows, the relative equal chromaticity of colors of the same degree is maintained (See page 50 and footnote in page 49 of "Instructions" in the Colour Atlas).

One can wonder why Mr. Foss, who objects to our shifting the points of the ideal curve towards a straight line, has not applied his view as co-editor of the Color Harmony Manual (the advertising leaflet of which has been transcribed in the same issue of the News Letter) in which two straight lines of the pattern forming an angle of 60° departs much more from the ideal curves than our vertical line.

The author of the criticism admits that the method of overprinting three (or more) solid prints in every plate has permitted us "to produce a remarkable saturation in the maximum series," and comments that "this multiple-component printing procedure requires a separate set of plates for each hue," etc. and that "while the Atlas has the most extensive color gamut ever shown in a printed work of this sort, a number of difficulties have developed in its production which may be noted. As the number of color components is increased, the control of the resultant colors becomes increasingly difficult, and when extremely light tints are used in typical printing inks, the color stability is also a problem." As a matter of fact, the Colour Atlas has the most extensive color gamut ever shown, not only in a printed work of this sort, but the most extensive in any work of this sort.

We have found, of course, many difficulties in producing our Atlas, but not those that Mr. Foss supposes. "These factors - he adds - have caused trouble in the light regions of many of the charts. The color change due to the aging of the printing-ink vehicle is most noticeable in the hues from the blue green, blue, purple to red purple where the light tints are used. The authors have made certain attempts to correct these errors with little success. Certain sample areas have been cut out and others marked out." "For many used however, the shortcomings are not serious." We do not know for what uses the lack of one, two or three colors in a chart of 191 could be a serious shortcoming; and we regret that the author of the review that

did not find space to describe the essential features above mentioned, has found it for guessing about a non-significant damage that effects only one or two colors of several charts, and three in the chart GE.

Even though we have personally directed and constantly cared for the printing, we realized in a final checking that in some plates, colors 18-6° and some others were a little too light. Then we prepared partial blocks upon which to overprint a very light grey ink. After starting the run we rely upon the printer for that routine work. When those extra runs were finished we found that the ink feeding was overpassed. To amend the failure, we made still another attempt, even reluctantly because heavy layers of opaque inks would be needed. As the samples showed yellowish after a testing period, we cancelled these few colors. In the normal printings we found not any special difficulties.

With respect to the paragraph: "Perhaps the principal error in the text (Which are the secondary ones?) is the attempt at a combination of several separate phases of color; i.e., color notation, colorant mixtures and color harmony into a general case," we do not understand what is its meaning. Is it perhaps unwise, in devising a systematic presentation of colors, to devise also a suitable system for naming them? Neither do we find any sense in the vague assertion that the Atlas "is not as much a contribution to color knowledge as the authors indicate in the text".

Asking you to publish this letter as soon as possible, (etc). (signed) C. y. J. Villalobos, C. Villalobos-Dominguez, Av. Pueyrredon 1504, Buenos Aires, Argentina. (received June 28, 1949).

The second letter, addressed to Miss Nickerson, was dated Sept. 28th on the stationery of the Color Research Institute of America, 176 West Adams St., Chicago 3, Ill., and now follows:

It is widely known that fact does not always correspond to theory. That is why practical people are often suspicious about theories and do not accept theoretical ideas until they are demonstrated as facts. But when a subjective notion is used as a basis for questioning facts then it is either worthless and should be disregarded or is harmful and should be pointed out to those who may be open to accepting the subjective theory as a fact while rejecting the actual fact.

In ISCC News Letter No. 84, a "news item" appears about the Cheskin Color System signed C.E.F. In his piece Mr. C.E.F. makes positive statements which we at Color Research Institute can completely disprove and, at the same time, we are inviting all those who have read this "news item" in News Letter No. 84 to visit the Color Research Institute headquarters in Chicago where we can demonstrate every statement made by Cheskin in his "Notation on a Color System."

The charts to which Mr. C.E.F. has reference were produced with transparent printing inks. We have used the same system and three basic pigments for our paint charts. The charts of paint chips are too costly and are therefore not distributed to the general public. Also, the ink charts serve a greater number of practical purposes. The transparent colors lack less than 20% of purity or strength and rarely are colors of greater purity called for in practical application.

Mr. F. says that "the Cheskin charts do not in any way show a new or novel treatment of color order" and he names other charts that are supposedly the same in charater. The examples he gives have been useless to us for various reasons only one of which is that they are not systems but arbitrary arrangements of colors.

For years we have been desperately in need of a color system that would serve the practical purposes of color planning, simple color identification, color matching and color printing. The Ostwald System, produced by C. E. Foss and published by Container Corporation, was the only one that served us well for some purposes but it could not help us in our work with textiles. It did not show a sufficient number of colors, each color had to be matched individually and it was no aid at all for color printing. The Cheskin Color System meets every one of our color needs (except that of work with plastic materials for which we use the Ostwald System).

The Cheskin Color System printed charts are used as the basis for nearly all of our color work. Only when we deal with paint do we use our paint chips because they are coded with bulk mixing formulas. However, the ink swatches can, for practical purposes, be matched in paint -- the color has to be viewed at a distance of about one to two feet. Although ninety-nine out of one-hundred colors on each chart are "dot mixes" with screened printing plates we also bulk mix the colors by using a special white or a dilution medium. The bulk mixed color matches the "dot mixed" or screened color at about one to two feet away. Since people do not smell colors the match serves the practical purpose. Also, the solid hue on each chart has a dot (screen) mixing code.

We produce color printing with plates made from CCS codes. For a restricted number of colors we designate "dot mixed" colors in combination with "bulk mixed" colors, which are printed with a solid plate. For full color printing we provide CCS codes for angled plates for color mixing by screens (or "dot mixing").

In "Notation on a Color System" Cheskin does not tell what he thinks or believes but reports what he has done. When he says colors are bulk mixed, he has not read or heard about it, he has done it. We do it here nearly every day.

We are enclosing two samples of color printing, the plates for which were produced from black and white photographs and CCS printing plate codes for the color. All the colors on the Gem-Tone Gift-Ware page are "dot mixed" with three primary colors and black. The colors in the doll and teddy bear page are partly "dot mixed" and partly bulk mixed ink (by code) printed with flat solid plates. The colors on these pages match the merchandise, which we could not do with Kodachromes and process reproduction, and the cost is less than one-fourth. Our clients think that matching their merchandise and saving them 75% of the cost is practical. They like it. That's only one reason why the Cheskin Color System is the best there ever was. We could not get plates made for full color printing with the charts Mr. F. refers to. We tried and failed.

Undoubtedly, Mr. F. wrote his "news item" in the light of his own experience. He gives an impression that he knows more about the CCS charts than the man who developed them and he puts forth theoretical ideas against practical facts. This letter and the enclosed samples should make it evident that others have had practical experience that may be outside Mr. F.'s realm. A visit to our quarters will certainly remove all doubt in all those who believe what they see.

We know that you could not reproduce the two enclosed samples -- but you could describe them -- and we ask you in all fairness to you and to us and in keeping with the character of an impartial news letter to reproduce this letter. (Signed) George D. Gaw, Director.

The third letter dated November 14, 1949 now follows:

"Today Mr. Carl Smedley of our Color Laboratories brought to my attention an article in the September issue of your News Letter #84 of the Inter-Society Color Council, which appeared on Page #7 regarding the Cheskin System.

I had brought to Mr. Smedley's attention a letter I received from Mr. A. Cecil Deits of Maracaibo, Venezuela in which he complained about the methods used to extract money from those interested in color theory, and it bears out statements made in the above mentioned News Letter. I quote a portion of that letter dated September 12, 1949.

"If you have not seen one of these so called Cheskin Color system Sets - composed of the 24 sets of 200 harmonious colors, we would suggest that you get a look at it - there are these above mentioned sheets with colors varying from the PURE shade and COMPLEMENTARY shade - further in their sales "come-on" letter, as you noticed, they state that (under #3, Color Mixing) "This color system provides a guide for mixing and matching any color." Any hue can be produced with balanced pigments by mixing specific bulk units of primary colors and any variation of color can be created by adding specific of white and/or black to the hue."

This theory, we believe, was probably discovered by primitive man when he got mixed up in some mud puddle, but where the Research Institute state that "specific bulk units" are used to arrive at any shade - there is absolutely nothing in either the chart or the "Notions on a color System" to indicate these proportions.

If I am not mistaken I had the first $5.00 sent in thru seeing an advertisement in Signs of the Times - and later the following $75.00 when the next step was advertised - Total $80.00 with the result of a set of pretty charts and a nice - little booklet with combined and "Balanced" colors etc. - but nothing to base it all on except the theory that - add a little and you get another shade.

We intended to use the theory for mixing inks - 1/2# of Pure Red plus X fraction of an ounce of yellow, equals shade so-and-so (D-2), or what have you according to the "chart."

Sorry to have bothered you, we'll have to take the loss and count it up to our native dumbness and profit and loss."

Thought you would be interested in the above letter and am passing it on to you for what it is worth." etc. Signed: Bert Zahn, Manager, Graphic Arts & Sign, Finishes Department, The Glidden Company, Cleveland 2, Ohio.

COLOR TELEVISION A very good description and summary of the three color television systems under wide current discussion appears in the December 1949 number of Electronics under the title "New Directions in Color Television" (pp. 66-71). The author, Donald G. Fink, editor of Electronics, is an authority on the subject, author of "Television Standards And Practice," McGraw-Hill Book Company, Inc., 1943. 405 pp.

The systems described are 6-mc systems. The CBS is a "field sequential" system developed under Peter Goldmark; the RCA is a "dot sequential" system developed under Ray D. Kell; the CTI (Color Television, Inc.) is a "line sequential" system developed under George E. Sleeper, Jr.

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