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INTER-SOCIETY COLOR COUNCIL

NEWS LETTER No. 81

MARCH, 1949

News Letter Committee:

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NEW MEMBER BODIES ELECTED

We are happy to welcome to membership in the Inter-Society Color Council the four organizations elected during the annual meeting of the Council on March 9. These are: the American Institute of Decorators, Mrs. M. M. Girard, Executive Secretary; the American Designers' Institute, Miss Ann Franke, Secretary; the American Institute of Architects, Mr. Walter A. Taylor, Director, Department of Education and Research; and the Society of Industrial Designers, Mr. Philip McConnell, Executive Secretary.

As soon as delegates are appointed from these groups, with a chairman and two other voting delegates designated, a supplement to the present membership list will be published so that ISCC members may know the representatives of these groups and have their addresses. It is hoped that exchange of ideas will be facilitated and that new and old members will be mutually benefited.

NEW INDIVIDUAL MEMBERS

We welcome also the following individual members whose applications were acted upon by the Executive Committee on March 8:

William Edward Carswell, School of Architecture, University of Toronto, interested particularly in devising a chart or color album and a set of reference notes for U of T graduate architects which will be of maximum assistance to them as part-time colorists;

Emerson Taylor Duncan, Louisville, Kentucky, art student interested in color charts, visual testing and grading, function and esthetic use of color;

Karl Freund, San Fernando, California, moving-picture camera man, particularly interested in colorimeters, color-temperature meters, color densitometers, and in color in general; member of IES and SMPE;

Peter Satterlee Gates, Chicago, Illinois, with the Container Corporation of America, supervisor of color and graphic arts control section; interested in the analysis of ink-film thickness, standardization and specification of inks, of folding carton and corrugated stock; member of OSA;

Eleanor Scheuing Glennon, colorist with Cannon Mills, New York, interested particularly in color in relation to hosiery, towels, blankets, bedspreads and sheets;

Douglas H. Hamly, Professor of Botany, University of Toronto, particularly interested in color systems for biological use based on physical standards, accurate description of microchemical color reactions; member OSA, Ontario Soc. of Biologists and Royal Canadian Institute;

Watson O'Dell Pierce, Director of the Center for Psychological Services, Inc., New York City, interested in measurement of individual differences in color discrimination, color reproduction, measurement of the color factor in the matrix of creative abilities of the graphic artist and theoretical problems in the psychology of color response; with the National Institute of Industrial Psychology 1929-34, War Dept. 1943-45; member APA, British Psychological Society, Oil and Colour Chemists Assoc.;

Percy L. Ricker, botanist, Washington, D. C., president, Wild Flower Preservation Society 1925-, interested in uniform designation of the colors of flowers and in color names used in all manuals on the subject, member Botanical Society of America, and Wild Flower Preservation Society;

H. Clayton Ruhf, Springfield, Massachusetts, with the Chicopee Mfg. Company, interested particularly in color measurement applied to cotton textiles, correlation between the Munsell system and the color scales of Hunter and Adams, and photoelectric colorimeters and their development;

Josephine J. Tomaszewski, Washington, D. C., member of color laboratory staff, Cotton Branch, U. S. Dept. of Agriculture (1934 to date);

Mildred H. Trimble (Mrs. James F.), Washington, D. C., interior decorator, particularly interested in the interior color schedules for Veterans Administration Hospitals.

WASHINGTON-
BALTIMORE
COLORISTS

Faber Birren is to be the speaker for the Washington-Baltimore Colorists at a dinner meeting on April 11. This is the first time that this group has been able to return to the Arts Club where meetings were usually held

before the war. The group looks forward to hearing Mr. Birren, always an interesting speaker. On request, he will discuss two widely different interests. One will include case-history studies of color application as it relates to the seeing task, accident prevention and related problems. The other will include a showing of the very remarkable series of color slides that he and an artist colleague prepared to illustrate the way in which the ordinary materials of the artist can be made to appear lustrous, luminous or iridescent by taking advantage of a few simple laws of vision. The paintings from which the slides were made are those first exhibited at the National Arts Club in New York City during the 1948 meeting of the I-S. C.C. Already during 1949 these paintings have been on exhibit at the Kansas City Art Museum and the Art Institute of Chicago.

CALIFORNIA COLOR
SOCIETY DISCUSSION

On Wednesday evening, March 16, this society was to have a panel discussion on the "Interrelatedness of Color to Architecture, Merchandising and Industrial Design" at the Art Center School Auditorium, 5353 West Third Street, Los Angeles, California. The five members of the panel and some of the jobs recently completed or under construction by them are:

Mr. Herbert Powell, Mr. Howard Mordridge, Marsh, Smith and Powell, School Architects: The new classroom and office buildings, U. S. C.; K. L. Carver School, San Marino; Hollywood High School.

Mr. Whitney Smith, Architect: Mutual Housing Project, North Brentwood; Motorcycle Shop, Pasadena; Linda Vista Shopping Center.

Mr. Sterling Leach, Barondon Corporation, Industrial Designers: New Del Mar Club, Santa Monica; Consumer Market, Tucson; Providence Public Market-R.I.; Display and packaging, Rexall Drugs, Inc.

Mr. Norman Hansen, in charge of design, Raymond Loewy Associates: Matson Line of-fices and S. S. Lurline; Broadway-Crenshaw; Union Oil Co.

This active group of architects and industrial designers, as top users, were to tell what they thought about color in their fields. To illustrate the work of the speakers, slides were to be shown during the meeting, and colored photographs were to be on display.

CENTER FOR
PSYCHOLOGICAL
SERVICES, INC.

One of our newest members, Watson O'D. Pierce, is director of the Center for Psychological Services, Inc., in New York City. This organization offers a psychological testing and service of advice to business, schools, the medical profession, civic and municipal organizations, as well as to individuals. A description of the specialized aspects of this service is given in the following brochures, copies of which may be obtained by writing to Mr. Pierce at 162 East 38th Street, New York 16, N. Y.

Executive Selection - A Service to Management

Vocational Selection - A Service to Industry

Educational Testing and Vocational Advisement - A Service to Schools

Diagnostic Psychological Testing - A Service to the Medical Profession

The Center for Psychological Services, Inc. is affiliated with Nejelski & Company, Inc., Management Counsels. Mr. Pierce is the author of the well known book "Selection of Colour Workers," 134 pp., Sir Isaac Pitman & Sons, Ltd., London, 1934. He writes that he expects to publish his color test soon.

COPIES OF COLOR
TERMS REPORT
AVAILABLE

Recently each delegate and member received a copy of the 104-page Comparative List of Color Terms. This report is not intended as a final report on definitions; instead, it is meant to provide the basis for a thorough study of the subject among the member bodies of this Council and lead to a revision of this list that will provide official definitions upon which all can agree. Additional copies of this report may be obtained by delegates and members of the Inter-Society Color Council at one dollar (\$1.00) per copy, by non-members at two dollars. Checks should accompany all orders (for the Council has no paid staff to handle the extra correspondence and billing that would otherwise follow.)

CALIBRATION OF
SPECTROPHOTOMETERS

The National Bureau of Standards has issued Letter Circular LC929, dated November 26, 1948, Standards for Checking the Calibration of Spectrophotometers (200 to 1000 mμ). It is a 21-page mimeographed report that can be obtained without charge by anyone interested in the subject who will write to the National Bureau of

Standards, Washington 25, D. C., and ask for it by name and number. This report, which treats the subject in considerable detail, is developed in the thorough manner we have come to expect of the authors, K. S. Gibson and H. J. Keegan.

SMPE PAPERS ON COLOR

The February 1949 number of the Journal of the Society of Motion Picture Engineers is almost entirely devoted to color. In addition to three of the five papers of the SMPE-ISCC-sponsored meeting at Santa Monica (two additional ones being not suitable for publication), there are two fine papers on color photography, and an excellent review of Ralph Evans' book by Herbert T. Kalmus. The papers on color photography are: Three-Color Subtractive Photography by W. T. Hanson, Jr. and F. A. Richey; and Masking: A Technique for Improving the Quality of Color Reproduction by T. H. Miller.

The three papers of the SMPE-ISCC symposium are being reprinted, with a Foreword by C. R. Keith, and will be distributed to ISCC delegates and individual members as soon as they become available. Meanwhile, if any News Letter reader is interested in the entire number, it is suggested that copies may be obtained at \$1.25 each by writing to the Society of Motion Picture Engineers, 342 Madison Avenue, New York 17, N. Y.

SCHOOL ON APPEARANCE MEASUREMENTS HELD

Because a larger number of its customers and potential customers had asked assistance in planning and interpreting various appearance measurements of their materials, the Henry A. Gardner Laboratory recently organized a laboratory and lecture course on appearance. This course was supervised by Mr. Richard S. Hunter and was held in the company's building at Bethesda, Md. The course has already been given twice; and repeat performances are being planned because of the large interest which developed.

The course on appearance measurement was designed with two purposes in mind: (1) to enable students to understand and identify various factors of appearance and (2) to familiarize the students with the various reflectometers, glossmeters, colorimeters and the like which the Gardner Laboratory manufactures, so that the instruments may be used with confidence.

Of the two courses already given, one was of two and a half days duration, the other five days duration. The first was limited to the identification of instruments, their scales, and techniques for using them, together with procedures for maintenance and adjustment. The five-day course devoted the additional three days to design of instruments and a study of the optical, psychological and mathematical properties of the scales of appearance. The subject titles for the two-day course are:

1. Instruments and techniques for using them.
2. An introduction to the scales of gloss, reflectance, transmittance, color, turbidity, etc.
3. Instrument components, their functions and locations in apparatus.
4. Trouble analysis, adjustment and repairs of instruments.
5. Color

The additional subject titles for the five-day course are:

6. Spectrophotometry.
7. Gloss, turbidity, etc.

8. Discussion and question session on appearance scales.
9. Applications involving various materials.
10. Review, discussion of instruments and applications.

The time was divided about equally between laboratory and lecture periods. The course was specifically designed at an elementary level to enable the many chemists, chemical engineers and technologists specializing in different materials to learn what some of the basic factors are in appearance specification.

The Henry A. Gardner Laboratory, Inc. is located at 4723 Elm Street, Bethesda 14, Maryland.

REVOLUTION IN MEN'S CUSTOM TAILORING

Color television will revolutionize the men's custom tailoring industry, says Mary Alice Smith in the January-February number of The Custom Tailor, publication of the Custom Tailors and Designers Association of America. America's tailors already are making the new "color-vision sportux" available. It has already been seen in a variety of colors at the beach clubs of Florida, Virginia and the Carolinas, at desert resorts, on cruise ships and at informal evenings in New York. Ray Twyeffort of New York, she says, plans to offer his customers fabrics in 100 colors and shades, selling them now in colors ranging from reds to soft grays and beiges. "Not at all unusual are sportux jackets in gulf blue, shades of green, canary and other yellows, rust and burnt orange, tans and browns." "A sportux immediately suggests an evening free from formality and stiffness" - so with color the tailor now sells relaxation. As a stimulant to sales, the sportux seems the answer to the custom tailor's daily prayer!

WILL COLOR PHOTOGRAPHY COPY COLORS EXACTLY ?

Recently in answering negatively one of a number of requests regarding the use of color photography for the exact copying of color standards - this time in connection with the color of flowers - your Secretary suggested that if negative advice on this question seemed hard to take, the questioner might seek more authoritative advice from the experts of the photographic companies. It is they who best know the limitations as well as the advantages of present-day color photography. Because so many persons interested in color find it hard to realize that color photography, excellent as it is for many well-known purposes, is not at present well adapted to reproduce colors accurately enough for use as color standards, we believe the following excerpts from a letter from Ralph Evans of Eastman Kodak Company, author of the recent widely acclaimed "An Introduction to Color," will be of much interest. We are hopeful of publishing later statements from other experts in this field. Mr. Evans' comments follow:

We are sorry that we cannot give you an affirmative answer. As a matter of fact, we have a statement in our data book, "Ektachrome, Kodachrome Professional Films," that reads as follows: "It should be pointed out, however, that there is no available process of color photography which can be said to give entirely accurate and repeatable reproduction of color. Ektachrome and Kodachrome Films, properly used, give satisfactory color rendering, but they are not intended for making precise color records, or for matching or measuring colors. Actually, since the reproduction of a physical subject by means of a color transparency involves psychological factors in the response of the observer, it can never be 'perfect' in any simple sense." We are enclosing a complimentary copy of the above data book and you will find the statement on Page 5.

You may also be interested in the statement on "Color Balance and Speed Characteristics" that appears on the last page of the enclosed instruction sheet for Kodachrome Professional Film. These two statements apply equally well for the 16 mm and 35 mm Kodachrome Films and present a brief resume of some of the reasons why it is not possible to use color transparencies or photographs as a primary standard of color.

It is true that with careful technique very pleasing transparencies may be obtained of many flowers, but, in this application there is not the demand that the picture be an exact duplicate of the original. It is satisfactory that the picture is pleasing to the person viewing it. Also there is not the necessity that another exposure of the same subject taken at some later date must look exactly like the first photograph as would be the case if an attempt were being made to produce an exact color record. The product in this example is satisfactory because it is being used for the purpose for which it was originally designed. In the general photography of flowers, most of the colors are reproduced quite well with the exception of certain purple colors. Because of the inherent sensitivity of the present color films, it is not possible to reproduce some colors in the purple range so that they appear the same to the eye as does the original flower.

NEW COLOR SYSTEM PERFECTED A new paint-color system, called "Color Coordinator," by means of which it is possible for a house painter to mix accurately any one of hundreds of colors, was announced on February 15. The system, created and developed by nationally known color scientists and produced by the Martin-Senour Company, Chicago, was disclosed at the 65th annual convention of the Painting and Decorating Contractors of America at the Waldorf-Astoria hotel, New York, Feb. 15-18. Now by using a chart and a set of related color chips, a house painter no longer need apply guesswork to satisfy his customer's color wants.

Details of the new system were given by Carl Foss, color physicist and color-standards producer of Princeton, New Jersey, who stated:

"Until now, it has been an exasperating experience for many home owners to choose a color they prefer in their homes, only to find that their decorator cannot furnish the color with any degree of accuracy. Now at last, America's color appetite can be satisfied without an expensive, complicated system or color expert being required. There will be no more hit-or-miss trial-and-error mixing. The color-coordinator system is, in fact, a color expert for hire."

The Martin-Senour color coordinator, Foss explained, is utilized by means of pentagon-shaped charts on which are a series of color chips laid out in circles, rectangles and triangles. When the customer tells the color-coordinator-equipped decorator that she wants a certain color, he produces his mixing charts or a companion book with large-size color chips from which a color is selected. The decorator then simply mixes the two or three colors surrounding the one selected on the chart to get the exact shade. Never does he have to mix more than a combination of three.

On the color-coordinator chart, there are the ten following basic toners:

| | |
|-------------------|------------------|
| Canary Yellow | Phlox Purple |
| Yucatan Yellow | Victoria Blue |
| Florentine Orange | Bermuda Blue |
| Radiant Red | Genoa Green |
| Dahlia Red | Killarney Green. |

Having formed the border of the chart with ten basic strong toners, the Martin-Senour

Company then added some moderate grayed colors:

Taffy Tan
Jockey Red
Nutria Brown

Honey Yellow
Sage Green
Metal Blue.

Thus, there are 16 starting colors. If white is added to any or all of these, the result is a remarkable coverage of strong, clean colors and grayed colors. These 16 colors are represented on the chart by circles.

The Martin-Senour Company then went one step further by simple combination. Thirty-five colors were added in between the 16 basic colors. The combination of two basic toners in equal parts is represented on the chart by a rectangle. Going still one step further and still maintaining the simplicity of the system, the company combined neighboring basic toners which provided for 20 additional colors of simple combinations. These combinations were represented on the pentagon by triangles. Thus, the system forms a simple and basic relationship between colors, and between their formulae and the geometric figure representing each color.

Through this ingenious arrangement, once a color is selected, the painter can quickly mix the desired color -- and each time he will be certain of getting the correct color. Moreover, when the paint is applied and dry, it is still the correct color selected. The color coordinator is not only a color selector but also a foolproof method of mixing. Armed with this new color system, the painter no longer wastes time in getting the exact shade Mrs. Housewife wants.

The Color Coordinator is economically priced for dealers, decorators and color consultants. Color charts are priced at \$7.00 per set; the 3 x 5 sample chip book is sold for \$17.00. Orders or inquiries should be sent to Spencer R. Stuart, Martin-Senour Company, 2520 South Quarry St., Chicago 8, Illinois.

DUO-COLOR GUIDE

We have recently received literature describing this two-color reproduction aid. On the very large (about $10\frac{1}{2}$ x 14) pages of a loose-leaf book are shown 4200 combinations of printed colors.

There are 76 pages of chromatic color and black combinations and 24 pages of chromatic color and second chromatic color combinations. The graded tonal variations "Are arrived at by a mathematical scaling of screens ranging from 15% of color with 15% of black (or second color) to solid color with 90% of black (or second color). The screen combinations are in the form of large rectangular patches ($1 \times 1 \frac{5}{16}$), below each of which is printed the percentages used. The practical printing shades of all color families are shown." On each plate are shown 42 combinations along with the scale obtained by diluting the "solid" color and the scale obtained from black ink. Between the 15% and 90% combinations in each row of seven are shown the 30, 45, 60 and 75% combinations.

The Duo-Color Guide comes complete with a single patch plastic viewer window for masking out surrounding patches; also with a transparent plastic disc imprinted in black type and white type which enables one to predetermine whether the "tones" selected will accept black or white type. Apparently tabs enable the charts to be arranged into groups marked red, yellow, blue, orange, green, brown, purple and "color plus key color." The address of the publisher is given as Graphic Publishing Co., Inc., Graphic Building, 22 Bond Street, New York 12, N. Y. Prices are not stated in the literature at hand.

PURPLE COWS

We assume that everyone is familiar with Gelett Burgess' famous quatrain about the purple cow. It was recalled to the editor when he wrote the article in our September issue on the connection of the names Palestine (then in the news) and purple. But he wondered then if our readers were familiar with the many versions of the quatrain echoed and re-echoed by Carolyn Wells in her "The Book of Humorous Verse" (Halcyon House, Garden City, New York, 1941), which, if it is not actually famous, should be. On Pages 515 to 521, under the heading "Diversions of the Re-Echo Club" she reports re-echoes of the quatrain by Mr. John Milton, Mr. P. Bysshe Shelley, Mr. W. Wordsworth, Mr. T. Gray, Mr. J. W. Riley, Lord A. Tennyson, Mr. R. Browning, Mr. J. Keats, Mr. D. G. Rossetti, Mr. T. Aldrich, Mr. E. Allan Poe, Mr. H. Longfellow, Mr. A. Swinburne, Mr. A. Dobson, Mr. O. Herford; Mr. H. C. Bunner, again Mr. A. Swinburne and Mr. R. Kipling, each present in spirit and writing in his characteristic style. Mr. J. W. Riley and Mr. R. Browning got a bit involved in suggesting the mixtures of red and blue necessary to produce purple; but Mr. Rossetti's effusion was simpler from the color standpoint, though double the quatrain in length. Here it is:

The Purple Cow strayed in the glade;
 (Oh, my soul! but the milk is blue!)
 She strayed and strayed and strayed and strayed
 (And I wail and I cry Wa-hoo!)

I've never seen her -- nay, not I;
 (Oh, my soul! but the milk is blue!)
 Yet were I that Cow I should want to die.
 (And I wail and I cry Wa-hoo!)
 But in vain my tears I strew.

We suggest that you look up the other color descriptions in Carolyn Wells' splendid book.

FABER BIRREN
AS CRITIC

Faber Birren, widely known author and color consultant, was sufficiently displeased with an article which appeared at page 115 of the January 1949 Architectural Forum issue that he sent us a copy of his letter of protest to the editor, Mr. Henry Wright, with the suggestion that we reproduce it. Under the same date (January 24, too late for our January issue) Mr. Birren remarks that we should be "critical of people who rush in and attempt research, the very basis of which is unsound."

Though the editor is not entirely sure that he agrees wholly with Mr. Birren's principle, we nevertheless are reproducing here in full his letter to Mr. Wright, in the hope that others better qualified than the present editor to discuss this question (including Mr. Wright), will do so. Mr. Birren's letter:

The efforts of the lighting profession to expound upon the mysteries of color are often strange indeed. This is certainly evidenced in your January story, "How Does Light Affect Color?" which has the elaborate color charts.

Right off, the general conclusions of the study are invalidated and rendered meaningless by the test procedure. When colors are judged in shadow boxes, the very psychology of human vision is disregarded. In the phenomenon of color constancy, for example, colors cling to a normal or genuine appearance so long as they are seen in relation to the general illumination of an interior. A white surface is

one that effects a total or nearly total remission of light. Such a surface will appear white under all kinds of general lighting, even though the light source may be a deep ruby red or a rich cobalt blue -- no less the pale tints of white fluorescent tubes. Nothing of the sort, of course, happens when the colors and the illuminants are isolated in shadow boxes. Thus to say that "pure white is difficult to specify because it will take on a different hue for every different light source" is untrue to psychological fact, and an error that wouldn't have occurred if the test method had been right.

Why were the colors studied in shadow boxes with the observers literally left in the dark? Why did the researchers overlook so vital a factor as the appearance of the observers themselves? This is unforgivable. To illustrate, Americans largely prefer blue and green colors. Yet any lighting engineer (or architect) should know that the public also finds objection to daylight fluorescent lighting. How, therefore, can it be said that blue colors "look best" under daylight fluorescent when the light source itself is in such great disfavor? If a woman seized upon blue as a suitable color for her dining room, what lighting engineer would be insane enough to enhance such blue! Would he not know that the food served would appear unsavory and the hostess herself somewhat cadaverous?

After all, how can the beauty of colors be judged under any light sources? A Scandinavian who by nature dislikes pink will certainly not say that it "looks best" under Warmtone lamps. Nor would a Latin concur in the opinion that blue "looks best" under a bluish fluorescent tube -- some Latins simply don't like blue under any circumstances.

Interior decorators will also probably voice objections. It is considered good practice to recommend warm colors for rooms having cool north light, and cool colors for rooms having warm south light. The Architectural Forum story, however, proposes warm illuminants for warm colors and cool illuminants for cool colors. In view of this odd paradox, it could be said on good authority that the conclusions of the article are precisely wrong and should be precisely the opposite.

Am sorry indeed that you invested in this story. It rather detracts from an otherwise brilliant editorial record.

1949 FALL
COLORS The continuing activity of the Textile Color Card Association is so great that our editorial task in reporting it has become very difficult, and we cannot hope to do justice to reports of this activity in the condensation which we must necessarily pass along to you. Since our last issue, for example, we have received nine pages of single-spaced reports, written in her spirited style for the members of her Association by its managing director, Mrs. Margaret Hayden Rorke. We can only repeat, with much abstraction and reduction, in a spiritless and dull catalog fashion. Besides advance announcements of the 1949 Fall Woolen and Rayon Cards, the 1949 Fall Millinery Colors, the 1949 Fall Glove Colors, and the 1949 Fall Shoe and Leather Colors, we have received Fashion Coordination Notes for Women's Shoe and Leather Colors and Merchandising Notes for Men's Shoe and Leather Colors for the same period. The most important of these is probably the first named, since for the women at least the other items are of the nature of accessories which Mrs. Rorke and the cooperating agencies key to the primary colors.

The regular Wool edition highlighted "After Five" Tone-on-Tones, Shades of the Woods, Autumn Harmonies and Colors Under the Sun, while the Rayon card featured

Tender Tone-on-Tones, "Dark-of-the-Night" Colors, Winter Melodies and "White Tie" Colors. Rating strong style positions were spirited copper and henna colors, with amadou, rosy terra cotta and acajou or mahogany being more subtle expressions. The basic importance of the neutral range was stressed in grége, nutria beige, sable taupe and brown chocolate; other grays included medium and darker woody grey, smoked crystal and graphite types, while warmer versions were of spiced honey, mordoré and golden brown types. Special attention in the red range was given to "glowing fire or ember hues," foliage crimson, deeper maroon wine and "old port tones"; among woodland greens such colors as cedar and balsam; deep spinach, and olive shades as well as brilliant emerald; in the blue range, a bright flame or royal type, a rustic lighter-than-navy tone, greyed foggy blue and a deep midnight or carbon; and in the mauve to purple scale wild blackberry, faded lilac and ashmauve. Other new colors were a "misty winter pink" and a muted glacé rose. The woolen and rayon cards each contained 40 colors.

The 19 millinery colors included the following 17 chosen from the Woolen collection: Nutria Beige, Sable Taupe, Copperbark, Brown Chocolate, Cloudy Gold, Meadow Moss, Spinach Green, Bacchante Red, Maroon Wine, Forest Blue, Woodgrey, Winter Pink, Wild Blackberry, Indies Copper, Rico Green, Haiti Red and Rio Sapphire; additional colors, repeated from previous collections, were Silver Lustre and Grey Cloud. The same colors, except for the following ones, were used for the 1949 Fall Glove Colors: Cloudy Gold, Meadow Moss, Bacchante Red, Wild Blackberry, Indies Copper, Rio Sapphire and Silver Lustre.

Ten colors for women's shoes and 13 for men's were adopted for Fall and Winter 1949 by the Joint Color Committees of the Tanner's Council of America, the National Shoe Manufacturers Association and the National Shoe Retailers Association, in cooperation with The Textile Color Card Association. The women's shoe and leather colors were in two groups: The Town Colors included a new dark brown, a brown of the Burnt Mocha type, a green in the Continental Green range, a new brownish taupe, and the repeated colors Admiral Blue, Cherry Red and Slate Grey; the Casual Colors embraced a new medium bright green, a new coppery rust, a new Palomino type, and the repeated colors Cherry Red and Slate Grey.

The men's shoe and leather colors were in four groups, depending on the type of finish of the leather colored. For Smooth Leathers there was a Manhattan Brown type, a "natural shade" in the Desert Sand range, and the repeated colors British Tan, Tawny Tan, Cherrytone, American Burgundy and Golden Harvest. Grouped under Grained Leathers were a brown of the type of Manhattan Brown and the repeated color, Golden Harvest. It was stated that the Brushed Leathers are expected to receive wide promotional activity. In the group were a new medium grey and the repeated colors, Bermuda Brown and Midnight Blue. Special style significance was attached to the three Promotional Colors, namely, a new ultra dark blue, a brown on the order of Cabana Brown and a new dark green.

The fashion coordination notes gave very practical suggestions for colors to combine with the women's shoe and leather colors under the headings Promenade Brown, Cognac Brown, Town Taupe, Parkway Green, Cherry Red and Admiral Blue, as well as Slate Grey. Similar notes were also given for coordination with the Casual Colors, Copper Rust, Turfgreen, Palomino Blond along with Cherry Red and Slate Grey. In the men's groups, merchandising notes were offered for the Smooth Leather colors Brown Oak, British Tan, Tawny Tan, American Burgundy, Golden Harvest, Natural Tan and Cherrytone; for Grained Leathers for Brown Oak and Golden Harvest; for Brushed Leathers in connection with Bermuda Brown, Rustic Grey and Midnight Blue; and for the Promotional colors Huntbrown, Blue Ebony and Jet Green.

COLOR IN EARLY CIVILIZATIONS . In the March, 1948, News Letter (No. 75), pages 9-11, we reviewed under this title an excellent study by D. E. McCown, entitled "The Comparative Stratiography of Early Iran," which included descriptions of the pottery colors and cultures going back probably to before 5000 B.C.

We have now received copy of a study which in more than one sense carries on where the McCown book left off. This is Marian Welker's "The Painted Pottery of the Near East in the Second Millenium B.C. and Its Chronological Background," published in September, 1948, by the American Philosophical Society, Independence Square, Philadelphia 6, Pa. This is part 2 of volume 38 of the Society's Transactions, pp. 185-245. The preface states that "this is an attempt to analyze the painted wares which appeared in the region of the Khabur (or Habur) River (in Syria and north-western Mesopotamia) and in the Syrian coastal area between ca. 2000 and 1200 B.C., and to fit them into their chronological background."

It is in fact, however, somewhat more than that; for it necessarily states resemblances to many pottery wares not found in the chosen region nor in the limited chronological period. Thus, it starts off with consideration of Siyalk III (locale: Iran; date: perhaps ca. 3900-3400 B.C.) and Ninevah V (starting at perhaps 2900 in northeastern Mesopotamia); and in an excellent summarizing table of chronology goes back to Tepe Gawra XIII in the al 'Ubaid period (say 3700 B.C.). An appendix deals with metal types, and another with the identification of Keftiu, found in early Egyptian texts. This had previously been equated with Crete and the Aegean islands, also with Cilicia (southern Asia Minor). In the present study, Keftiu is identified with northern Syria. Two sections out of 16 deal with Palestine.

Though the study (if a layman may say so) is a masterly one, the Editor, who happens to be fairly familiar even with most of the details from other sources, found it somewhat difficult reading, for the article is not meant for "popular" consumption. In spite of division into 16 sections, one finds it difficult to see the forest or forests because of the trees. This is a common fault of archaeological writers, and perhaps an inevitable one (though there are one or two notable exceptions); but perhaps the reviewer is at fault, being busy at a job requiring inspection of the trunk, branches and leaves of each tree. But all in all we have here an interesting, scholarly and thorough study, replete with factual information along with a minimum of (generally footnoted) speculation as to the wanderings of early men and the impact of their cultures on each other.

In this connection one may note, on Page 196, "Related in some way to the early grey and black ware, although their immediate origin is problematical, are the (red and black burnished) Khirbet Kerak and Anatolian Bronze Age wares, which arrived in the west simultaneously (in Syria and Palestine and in Asia Minor, respectively - Ed.). Handmade in a period when the (potter's) wheel was known to all civilized countries, they show the technique of burnishing raised to a fine art, and are accompanied by metal types closely related to those of Hissar III (in northeastern Iran about 2800 to 2300 B.C. - Ed.)."

The pages of this book are large, though the print is small to moderate; six plates present perhaps over 300 figures; the bibliography includes 152 well-selected references; there are three tables, the index is fairly complete, and an excellent catalog of pottery forms is included on pages 222 to 228. The painted wares, probably the items of greatest interest to the color worker, are well described. Such include the Khabur ware, the "indigenous painted wares" of Syria, and the painted

and incised potteries of Ninevah and Tell Billa not far away. The reviewer is not quite convinced in some items of chronology; but of course here there is always room for some disagreement. And for the earliest dates the chronology is far better (as judged by the work of other recent authorities) than that of a book received at the same time.

This latter book is H. C. E. Zacharias' "Protohistory" (B. Herder Book Co., 15-17 S. Broadway, St. Louis 2, Mo.), which in spite of this defect can be recommended as a very interesting work. This book is based upon the work of the great Catholic anthropologist Wilhelm Schmidt. Here all early civilizations are classed as (1) Primitive or food-gathering; (2) Venatorial (hunting); (3) Agricultural or peasant-type; and (4) Pastoral. It is well shown how each of these types of civilization leads naturally to differences in respect to (a) the economic unit of organization of society; (b) the basis of food; (c) the domestication of animals; (d) clothing; (e) tools; (f) weapons; (g) habitat (forest, hills, valleys or steppes); (h) character; (i) achievements; (j) political ideology; and (k) religion. Blends of the basic types are described. The most important blend is a hunter-peasant blend, responsible for the so-called "Archaic civilization" of the Asianic peoples in China, India, Mesopotamia and Egypt. This was an "all-embracing, parent civilization, prominently characterized by painted pottery," with the cultures of the four mentioned areas "as so many local specializations." "This painted pottery is a type of pottery, ornamented by the application of a permanent indelible color, fixed by firing. It preceded the invention of the potter's wheel and seems just the sort of refinement, giving scope to artistic talent, which one would connect with the genius of Hunters, stimulated by having learned from the Peasants the handicraft of making earthenware pots in natural grays and blacks."

Whether we can go the whole way with Zacharias or not is a very debatable question; but at least, except in his chronology, he writes with persuasive plausibility. The reviewer is not competent to assess the work of the anthropologist Fr. Schmidt; but Professor W. F. Albright, for whose many abilities the reviewer has the greatest possible respect, in his book "From the Stone Age to Christianity," has only good to say of Fr. Schmidt in connection with his sociological and religious views and their impact on other workers in these fields. And it is very clear that he has had an immense influence on Zacharias. The latter's little book is very interesting reading even where it is largely speculation rather than documented fact.

COLOR

CONDITIONING

In the January 1949 issue of Dun's Review, pp. 17-21, is an interesting article by Faber Birren, author and color consultant, entitled "Color Conditioning.... Aid to Getting Work Done."

We understand that it is a resume of what Mr. Birren reports as six years progress in this field, in which he was a pioneer. After pointing out the importance of the field to industry, that color conditioning is little related to art or to interior decoration, and that color may be even distracting, it is stressed that the new science "is not in the least interested in personal opinions about color or artistic notions as to its emotional appeal. It works the hard way, concerning itself with factual and statistical results. "Emotional factors are set aside for such palpable facts as production records, accident rates, and medical studies which chart the state of the human eye under different working conditions."

After reminding us that brightness and color dominate human vision, which is critically important in many industrial tasks, the author points out the somewhat anomalous fact that too much light often causes trouble, aggravating rather than relieving eyestrain. Adaptation and the phenomenon of color constancy tend to reduce the importance of the level of light intensity. Seeing is efficiently performed in

winter or in summer, on clear days or cloudy days, in full light or in moderate shadow. Simonson and Brozek (JOSA, April 1948), who found little difference in ocular fatigue under light levels from 5 to 300 foot candles, are quoted to the effect that "illumination engineers tend to exaggerate the effect of variations in the illumination level." If extreme contrasts exist in the same working field of view, the general light level must be kept down, perhaps below 25 foot candles. High intensities can be used only where the colors of walls, floors, machinery, and equipment can be held relatively light in tone and kept as uniform in brightness as possible.

Next some impressive results of the effect of judicious use of color in industry, published by the National Industrial Conference Board in 1947, were mentioned. Results with a group of employees using business machines, and similar results were cited. In a controlled study, the brightnesses in the original room varied by a factor of 100. The addition of new lighting reduced the ratio to 40. When proper color conditioning was applied, the ratio was lowered to 4.7 to 1. The results show up in the form of reduced accident rates, higher efficiency and production rates, less absenteeism, and so on. Birren in concluding has translated such results into the easily understandable dollars-and-cents annual savings per worker and per 1000 employees. Two of the author's important clients, Du Pont and the United States Navy, are brought into the picture; and in summary a list is cited of the leading firms who have applied color for conditioning in the Birren sense.

AMERICAN INSTITUTE OF ARCHITECTS MEET AT HOUSTON

The 81st Convention of the American Institute of Architects, held at Houston, Texas, March 15-18, included seminars arranged by their Department of Education and Research, Walter A. Taylor, Director. One theme, "American Architecture in the Atomic Age," new for this year, included speakers nationally known, Admiral W. S. Parsons, General P. B. Fleming, Dr. Philip M. Houser, and Sumner T. Pike. The other theme was a continuation of last year's Fundamentals of Design, and this year dealt with Color. The Color Seminars were intended to supplement the architects' age-long experience with color by lectures and demonstrations concerned with the modern science of color and its application, involving such things as its physical, physiological, psychological, and industrial functions. The color program was spread over three days meetings, with panel discussion arranged to follow each paper. Mr. Waldron Faulkner, Washington architect, chairman of AIA delegates to the ISCC, was chairman of all color sessions. All speakers are well known to the ISCC.

Dr. I. A. Balinkin gave a lecture-demonstration of Color Phenomena
Mr. Ralph M. Evans gave an illustrated lecture on Seeing Light and Color
Mr. Carl E. Foss gave a lecture-demonstration on Color Order Systems
Mr. Faber Birren discussed Functional Color and the Architect
Mr. Waldron Faulkner summarized these discussions

The discussion panel on color included the above speakers and Miss Dorothy Nickerson, secretary of the Inter-Society Color Council, and Mr. H. Creston Doner, representing The Producers' Council. The meetings were well attended, and the color programs attracted a great deal of interest. The AIA Department of Education and Research plans to follow up this national meeting with regional meetings that will develop the same theme.

Two items of general interest during the program that were much enjoyed by the color guests were the president's reception, held at the much-publicized Shamrock Hotel

on March 16, the evening before its official opening, and the Annual Dinner, held in the Ballroom of the Rice Hotel at which the Gold Medal, highest award of the Institute, was awarded to Frank Lloyd Wright. The presentation and response by the Gold Medalist, was the highlight of the evening, an historical event that will be long remembered by all who were fortunate enough to be present.

Dr. Balinkin writes that judging from indications the Color Seminar at the AIA meeting in Houston was highly successful. He adds that "from now on the proper way to spell the name of the city should be Houston and in its spectrum the point of maximum luminosity is at the Shamrock Green!" Perhaps from this hint our News Letter readers can gain at least an inkling of the enjoyment and interest among the color panel group that attended this meeting. The meetings provided a fine opportunity for private discussions among members of the color group - discussions always good natured, even when they became fairly heated!

U. S. NATIONAL COMMITTEES
OF THE INTERNATIONAL
COMMISSION ON ILLUMINATION

Officers of the International Commission on
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Central Bureau: R. J. Whitney, General Secretary, 2 East End Ave. N.Y. 21, N.Y.

The president and secretary of the U. S. National Committee, 1948-49, are Arthur A. Brainerd, 1015 Chestnut Street, Philadelphia 7, Pa., and Louis E. Barbrow, National Bureau of Standards, Washington 25, D. C.

The secretariat for I.C.I. Technical Committee 7, Colorimetry, is assigned to the United States. American representatives on this committee are: Deane B. Judd, Chairman; K. S. Gibson, M. Luckiesh, D. L. MacAdam, D. Nickerson.

American representatives on other committees in which there is considerable color interest are as follows:

| Tech. Subject, and Com. Secretariat No. Assigned to | American representa- tives | Tech. Subject, and Com. Secretariat No. Assigned to | American representa- tives |
|-----------------------------------------------------------|---------------------------------------------------------------------------------------------|-----------------------------------------------------------|-------------------------------------------------------------------|
| 4 Light & Vision France | M. Luckiesh, Ch. C. L. Crouch William M. Gilbert Domina E. Spencer E. M. Strong | 25a Museum Lighting France | H.E. D'Andrade, Ch. S. R. McCandless G. E. Shoemaker |
| 5 Visual Photo- metry Switzerland | W. F. Little, Ch. J. E. Bock R. P. Teele | 25b Architectural Lighting Australia | (Same as above) |
| 21 Sources of Light Great Britain | R. M. Zabel, Ch. E. F. Lowry R. N. Thayer F. J. Vorlander | 27 Natural Daylight Sweden | W. C. Randall, Ch. R. L. Bieseke E. H. Hobbie Parry Moon |