

Inter-Society
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COLOR REPRODUCTION

By courtesy of David W. Fream, Group Advertising Manager, Corporate Advertising Dept., Westvaco, Fine Papers Division, New York, N.Y., the ISCC is presented with another beautiful color reproduction. Photographer Phil Marco, advertising agency McCaffrey & McCall, Inc., printer Herbick & Held, Pittsburgh, Pa.



RECOLLECTIONS AND REMINISCENCES OF RALPH M. EVANS

The afternoon of April 27, 1976 of the 45th Annual Meeting of the ISCC was devoted to a symposium in honor of Ralph M. Evans. In addition to two technical presentations, George B. Gardner gave a twenty-minute talk on his recollections of Ralph M. Evans, which was followed by briefer reminiscences given by Dorothy Nickerson, Isay Balinkin, Richard S. Hunter, and Max Saltzman. I thought that those of you who were at the meeting might like to have a record of what was said during these recollections and reminiscences and that those of you who were not there would enjoy reading them.

Editor

* * *

These are my recollections about a man well known to many of you and will therefore serve to bring back pleasant memories of past annual meetings of the Council that he attended for many, many years including the year after he retired, the Annual Meeting of 1971. For the more recent members, these brief comments will, I hope, give a glimpse of Ralph Merrill Evans, a distinguished scientist and true friend of the Inter-Society Color Council. To all I must say that I have drawn largely on my memory for these recollections, which span 35 years and, therefore, request a small degree of editorial license.

Of his youth in Haverill, Massachusetts, he once remarked that he had spent many hours at the Memorial Library and had early developed an interest in the literature covering a wide range of subjects. He added that this remarkable library had been given to the city by a wealthy benefactor and that he could think of no more worthwhile or lasting memorial than a library of this excellence. The pursuit of knowledge led in later years to the conversion of the Evans dining room at their Thomas Avenue residence in Rochester to a book room with floor to ceiling bookcases — all full.

He was particularly fond of encyclopedias and owned two editions of the Brittanica. He said he was willing to give both sets shelf space because it was fun to compare identical listings in the two editions and find, quite often, that the more detailed information in the earlier edition was superior.

After graduation from Phillips Academy, Evans continued on to Massachusetts Institute of Technology from which he was graduated in 1928 with a Bachelor of Science degree in Optics and Photography. Then he spent one year at the Kodak Research Laboratories working on lenticular motion picture film, leaving in 1929 to join Twentieth Century Fox Film Corporation in New York City. In 1933 he moved to the DeLuxe Laboratories, also in New York, to do research and process-control work on motion-picture films.

The six years he and Mrs. Evans lived in New York City were evidently pleasant years. Even though Schraffts required tie and jacket, thoughtfully providing the jacket if you forgot to wear one, the food was pretty good, and

theatre tickets were available on the spur of the moment.

Once or twice, when we had a free Saturday evening before the Council annual meeting, I asked Ralph if he would like to go to a Broadway production. His reply was always that he would hate to spoil his pleasant memories of that 'Golden Age' of the theater during the early thirties. More importantly, he said, in all probability by 9:30 p.m. or so, somebody like Farnsworth, Granville, Derby, or Saltzman would be arriving and want to have a pre-convention planning session in the Pennsylvania Room off the main lobby of the hotel.

One event from the 1929-35 New York period is particularly interesting. The Evans' Morningside Drive apartment was scheduled for repainting. Ralph said that he came home after work and surveyed the results. He told Mrs. Evans that she had better call the man back the next day — one wall appeared to be about two shades darker than the others. Further thought suggested that that idea did not make much sense. After moving the lamps around a bit, he found that both walls were indeed the same. Many years later in relating this incident, Ralph said: "You know, that was one of the first times that I started thinking about the appearance of things and why we see things as we do, and look where it has led me!"

Evans returned to the Kodak Research Laboratories in 1935 to be a Supervisor in the Color Process Development Division at the time that Kodachrome 16 mm movie film was announced. His first project was to direct the development work on the 35 mm still camera version of this Kodachrome film. Several years later, this division, although in the Research Laboratories, acted as the production facility for the first successful color print program. The prints were known as Minicolor prints. For practical reasons these color prints had no white borders and Evans became interested in the reasons for customer preference for white borders rather than no borders.

Several times, he noted that, although the New York experience had not greatly enhanced his knowledge of color photography or his rate of pay, it had increased his reputation as an expert with Kodak's Director of Research. So on numerous occasions, Dr. C.E.K. Mees, Vice-President and Director of Research, called him to his office to render an opinion. This experience led Ralph to say that any opportunity for a temporary leave under amicable conditions should be seized because it could only result in enhancing the career of the individual. It was in this spirit, I am sure, that Dr. Mees called Evans to his office toward the end of World War II and said that he was convinced that color photography would dominate the market in the post-war world, and he was well aware that many of his scientists were not very well informed about the principles of color. Therefore, he asked Evans to write several lectures on the subject for presentation to the Laboratory staff. In the course of preparing these lectures Evans felt he needed a number of color illustrations and recalled that he had recently hired a graduate from the photographic course at the Rochester Institute of Technology. So he asked Miss Jeannette Klute if she would like a change from the routine chemical analyses she was doing in order to make some illustrations for his lectures. When he saw the first results, he offered Miss Klute a permanent change in assignment to full-time Research Photographer — a job in which she continued until Evans' retirement. Her ability and sensitivity as a creative photographer, I am sure, have been known to many of you before you viewed the slides shown earlier in this symposium by Bonnie Swenholt.

Late in 1945, Kodak management decided that a new department would be created whose first charge would be to work out control procedures for the color processes then in existence, the name of the department to be 'Color Control' and the head Ralph Evans. While the majority of the staff were chemists, physicists, mathematicians, and engineers, Evans was also able to include a small group of visual psychologists including Doctors Burnham, Holway, Hurvich, Dorothea Jameson (later Mrs. Hurvich), and Sidney M. Newhall - all well known to the Inter-Society Color Council. At this time, Evans was also completing his first book "An Introduction to Color," which in some respects had been a natural outgrowth of his first series of lectures. By now the Council had been in existence for some time, and Evans stated that the critical review of the manuscript for this book by his good friends in the Council, including Balinken, Farnsworth, Judd, and Nickerson made it an outstanding and timeless treatise rather than just another good book on color.

The preparation of other lectures continued, and word of their excellence in content and illustration spread to the outside world, where Evans said that demand for a free lecture was almost insatiable. For this reason, he early limited acceptances to annual meetings of national scientific societies (other than those within easy driving distance of Rochester).

In the early fifties after a lecture at Fort Monmouth and before no-fault insurance, Ralph crossed the street at Lexington and 42nd in New York City and was struck by a car. He suffered a broken nose, which was expertly treated by a Bellevue intern with aspirations in plastic surgery. Much more serious was the compound fracture of the leg, which required a hip-to-toe cast for many months. I mention this because he once said that for a long time he was too uncomfortable for sleep and so read approximately a book a night. It was during this time that he covered much of the literature on perception, giving him the broad historical background in this subject that occupied his professional interest more and more.

As his lecturing continued, Evans had several unfortunate experiences with inexperienced projectionists. He then pursuaded Kodak management to allow me to go along on these trips as projectionist, but only when the trips were east of the Mississippi or north of the Mason-Dixon line. Ralph preferred the New York Central Railroad to the propeller aircraft of those early days; so on lecture tours we enjoyed many long conversations in the first-class accommodations now only a fond memory in this country.

About the 30th time I projected "Seeing Light and Color" Ralph said "you must be getting pretty tired of that lecture." I thought a minute and said "No, strange as it may seem, that is not the case because, from the first, I noticed that you approached each presentation as though it were 'opening night' and your enthusiasm is quite

infectious."

It was in 1952 that he obtained permission from Eastman Kodak Company to take over the work of the Secretary's office of the Inter-Society Color Council, which had been carried on so ably for many years by Dorothy Nickerson and her assistant Josephine Tomaszewski.

Evans was uniquely qualified for this position because he was an early member of the Council, representing the Society of Motion Picture and Television Engineers whose delegation to the Council he chaired until his retirement. He had been a member of the Executive Committee in 1944 that drafted the section still to be found in the By-Laws entitled 'Statement from Report of Executive Committee 1944 covering ISCC Organization and Functions' and he served as Chairman (now known as President) during 1946-47.

So it happened that one day in the early spring of 1952, Evans called on the intercom and asked me to come to his office where he expressed the belief that I had not been frantically busy during recent months. I said "True." "Well," he said "I have a project that will keep you occupied. I have just consented to take over the Secretary's work of the Inter-Society Color Council and I will be having you do the detail work of that office. Don't look so glum — you'll get two or three trips a year to New York City." This was the start of an eighteen-year tenure for Ralph and also for me, which ended at his retirement from Kodak. These years span the administrations of Stearns, Nickerson, Faulkner, Granville, Erickson, Kiernan, Pike, Rhodes, and Billmeyer, with never-changing stalwart Treasurer Norman Macbeth.

The Council Board of Directors meetings, normally held three times a year, were pleasant occasions for Ralph. Much of the while he would sit quietly smoking, but when some discussion would get off the track, he would bring it back by saying: "isn't what you really mean to say . . .?" and usually he had cut through the needless details to state the issue clearly. However, it was the small discussion group, be it in the Secretary's suite, the Penn Bar, or the Georgian Room Foyer that I think he enjoyed the most and where he was the most effective. Several times he mentioned that he felt one of the greatest contributions of the Council was providing the meeting ground for people interested in various areas of the subject where differing views could be freely discussed. It also provided an ideal atmosphere for newer members to acquire knowledge and guidance as they took part in the activities. He was keenly aware of the broad spectrum of interests represented by the various member-bodies of the Council and came to believe that much of the problem of understanding each other was one of semantics.

In February 1969, the year before he was to retire from both Kodak and the post of Secretary of the ISCC, he was the Chairman of the ISCC Special Technical Conference on Visual Perception, which took place in Williamsburg. He was the first speaker, presenting his paper entitled, "On Gray Content of Colors" to be followed by Professor Fry, Dr. Jo Ann Kinney, and Professor W. D. Wright. Dr. Edwin Land was to have been the fifth speaker but was a victim of the famous snowfall of that season and could not obtain clearance even for a chartered

jet to leave Boston. Although the attendance was somewhat reduced by the snow emergency, Evans had what he later termed a wonderful time in both the formal and informal discussions and presumed that this was probably the last major color conference in which he would participate prior to his retirement.

Turning for a moment to his achievement in the photographic world, it is true that during the twenty-five years that Ralph Evans was director of the Photographic Technology Division, color photography was indeed achieving the earlier prediction of Dr. Mees, and the Division was in the forefront of the development of the new product lines, particularly in the development of unique processes for these new products.

The Division was now housed in a new eight-story building, and, with increased space, development was broadened to include non-color products. Notable improvements had been achieved in many product lines but for the average consumer, probably the most impressive were those in the Ektachrome, Kodachrome, and Kodacolor products. The Division was, of course, deeply involved in the pocket Instamatic program of several years past.

The success of these efforts under Evans' leadership would seem to one observer to be the result of his ability to choose able co-workers and then give them a great deal of latitude in carrying out their programs. From the first, one objective had been to train photographic scientists for other parts of the company. It was with pride, I know, that Evans stated this objective had generally been reached as the statistics showed that approximately one third of those hired for the scientific staff of the Division eventually accepted assignments in other divisions of the company. Some did move to the outside, as happened, for example, when the visual research activity was terminated. The Hurviches as well as Jim Bartleson are, of course, still active in visual research.

In addition to "The Introduction to Color" he was the author of the book "Eye, Film and Camera in Color Photography" and with W. L. Brewer and W. T. Hanson, Jr., was the co-author of "Principles of Color Photography." Over the years he had prepared twenty-three lectures. He lectured untold times in the United States and once in London before the Royal Society. One lecture was given by Deane Judd as proxy in Sweden and had as honored guest, the King of Sweden.

He was the Warner Medalist of SMPTE (1949) and received the Progress Medal of the SMPTE in 1957, the Godlove Award of the ISCC in 1959, and the Kalmus Gold Medal of the SMPTE in 1961.

A short time before the date of his retirement, Evans stopped by my office, which was a most unusual occurrence. He said "knowing that you usually get involved in these things, I suppose Jim Bruce (who had been named the new Director) has asked you to plan some sort of a retirement party and this is to tell you that if you want to plan a big affair, go right ahead, but I won't be there!" Several of us had already decided that a dinner party of supervisors and wives would probably be acceptable and this proved to be true. I did have to admit that the problem of a suitable gift was baffling and finally asked his

assistance. As could have been anticipated and entirely in character, he selected a scientific instrument, a laboratory-model mercury barometer!

After his retirement, Kodak kindly made an office available to him, and it was customary for Evans to spend one morning a week in it. Often he would call to ask cheerily "What's new?", and I would stop by on the fourth floor for a chat about current events in the Division. One morning he announced that he had decided to write another book to occupy his spare time. He said he would try to have a chapter completed almost every week when he visited the Division. He wondered if, after he and Bonnie Swenholt had reviewed the material, I could have two extra Xerox copies made for editorial and security purposes. This schedule was essentially achieved, and I was fortunate to find a kind-hearted and cooperative secretary to type the manuscript. Although the manuscript was completed before he died, the book was published posthumously. This book, as most of you know, is entitled "The Perception of Color" and was the culmination of his many years of work on this subject.

In the fall of 1973, with their three sons David, John, and Robert no longer living at home, Ralph and Pauline decided to move to a condominium they had purchased at Heritage Village, Southbury, Connecticut as soon as the family home in Rochester could be sold. Unfortunately, before this could transpire, Ralph Evans died on January 29, 1974 at the age of 68.

In conclusion, with Dorothy Nickerson's permission, I quote from a letter that I received from her in February 1974:

"Color has lost one of its leading lights — one of its few real thinkers — original thinkers, I mean: — Dean Farnsworth, Deane Judd — and now Ralph — Such a loss!"

George B. Gardner Eastman Kodak Company (Retired) Rochester, New York

* * *

Knowing that I would follow Bonnie Swenholt and Ed Breneman in their reviews of Ralph Evans chief pioneering interests in color and George Gardner in his history and recollection of other phases of Ralph's color life, I was somewhat at a loss when asked to supply a few brief reminiscences for this program to know what I might add that would most interest this audience. Then I remembered that among the pictures I keep on the top of my bookcase, each recalling some event of special color interest, were two I might show you that would focus attention on two events, held during my term as ISCC secretary, in which Ralph played a central part.

First, there is a picture of a very relaxed group of four speakers, taken on the boardwalk outside our Santa Monica hotel the morning after a symposium, arranged by the ISCC, had been held on the program of the 1948 Spring meeting of the Society of Motion Picture Engineers. During those early years, symposia of this sort were arranged and held jointly on the programs of several of

our member societies. Ralph's very fine and beautifully illustrated lectures were much in demand as a feature of such programs, as were the colorful lecture demonstrations of Isay Balinkin. At this particular meeting, in addition to lectures by Evans and Balinkin, there were papers by Macbeth and Nickerson on light sources and by Carl Foss on color systems (a program repeated during the next few days for Al King to an enthusiastic audience at the Art Center School). This excellent candid photograph shows Ralph with the other speakers, as they relaxed, talking things over, well pleased that the first performance had succeeded so well, hoping for equally good results for the next one. Arranging and holding such meetings took a lot of cooperative effort, and it gave to those of us involved many opportunities to discuss with each other our thoughts and work on color.

The second photograph shows a group of seven of us shown with Ralph, in the doorway of his building at Kodak, August 1948. It was taken during a special session in which we met informally to review again several of Ralph's lectures in order to discuss them and their meaning with him and each other — a sort of seminar. The picture shows colorists Hunter, Evans, Balinkin, Judd, Foss, Granville, Bradley, and Nickerson. I remember that the 2½ day meeting ended Saturday with lunch at Ralph's home. During and after lunch there was a big discussion of the definition, or definitions, of saturation. Carl Overhage was there with us, and I remember that Deane Judd — or perhaps it was Ralph — prepared and later circulated a written version of the results of the discussion in which two terms were defined: Saturation I, and Saturation II.

Altogether it is hard to choose from the many memories of color sessions with Ralph. He was best with small groups, so that often it was in the after-sessions discussions that the best ideas developed. I remember being in on discussions in California — with Al and Louisa King, with Karl Freund, the Plocheres — and in New York and Washington, often after one of Ralph's lectures.

Ralph once told me that it was an after-meeting discussion with Faber Birren, one that lasted into the wee small hours following the ISCC 1942 meeting at the Metropolitan Museum, that set him to thinking about a way to prove by actual illustration whether the premise he had been arguing had been correct. He went back to Rochester and got Jeannette Klute to set up and photograph a typical situation by which he could judge. That, he said, was the germ from which grew his idea for a lecture series. Each lecture was developed to illustrate and prove a single thesis; put together they were the basis for his first book.

Ralph was a creative thinker in the field of color and appearance, one of a small group, one we sadly miss.

Dorothy Nickerson

Ralph M. Evans was a renowned authority on the subject of light and color. As a director of the Color Technology Division of the Eastman Kodak Company, he occupied a position of great responsibility that required wide knowledge of technical, scientific, and executive nature.

In spite of his participation in many activities in the societies to which he belonged, he found time to write several books, of which I should like to mention the first one: An Introduction to Color. It was received most enthusiastically by all who felt that at long last the subject of color was treated so that simplicity was distilled out of complexity, and clarity distilled out of confusion. One reviewer concluded with the statement that "this is the greatest book on color since Helmholtz." It was a happy accident that this book appeared at the time (1948) when I was looking for a text to use in the subject I taught — "Elements of Physics" - a great part of which dealt with light and color. I adopted his text immediately. Thus for the next quarter of a century my students drew their knowledge of color from the roots of Evans' book. I estimate that in all about five thousand students were thus nourished.

On many occasions Ralph Evans visited the Campus of the University of Cincinnati to present his famous lectures, which were attended by students, faculty, and guests. During these lectures some students might have demonstrated "a sophisticated state of ignorance;" nevertheless, they appreciated the opportunity to see in action the bold vision that Evans showed to be an attribute of a contemplative mind. As one student put it: "Now I will be able to tell my children that I have heard a lecture and have seen the slides of the great Evans!"

Ralph Evans amply demonstrated that if knowledge comes from being able to take things apart, wisdom comes from putting things together. He mastered both. In my early studies of color and color perception I observed many phenomena that I could not explain. Ralph, on the other hand, was able to explain phenomena that could not even be observed.

As an example, consider the investigation by Ralph Evans of Maxwell's famous demonstration of three-color photography. How could this have been made "possible" by the use of photographic material sensitive only to wavelengths below 430 nanometers? The required green and red photographic materials were not available until twenty years later. It required the genius of Evans to discover the necessary optical property of the available materials and to duplicate the three-color photographic process invented by Maxwell.

Evans initiated many paths which will always serve to make us understand better the intricacy of the interaction between radiation and human beings.

Ralph was a pathfinder and a bridge builder, such as portrayed in the following poem:

THE BRIDGE BUILDER

An old man going a lone highway, Came, at the evening cold and gray, To a chasm vast and deep and wide. The old man crossed in the twilight dim, The sullen stream had no fear for him; But he turned when safe on the other side And built a bridge to span the tide. "Old man," said a fellow pilgrim near,
"You are wasting your strength with building here;
Your journey will end with the ending day,
You never again will pass this way;
You've crossed the chasm, deep and wide,
Why build this bridge at evening tide?"

The builder lifted his old gray head; "Good friend, in the path I have come," he said, "There followed after me to-day
A youth whose feet must pass this way.
This chasm that has been as naught to me
To that fair-haired youth may a pitfall be;
He, too, must cross in the twilight dim;
Good friend, I am building this bridge for him!"

(Author unknown)

Isay Balinkin

* * *

Ralph Evans taught me to appreciate the mind's ability at translation. Before listening to Ralph, I tended to think primarily in terms of observing objects under the standard conditions of illumination and view with which we are all familiar. I will never forget the impact on me of Ralph's photographs taken in his room with non-square corners. My efforts to make the pictures taken in this room fit my normal expectation of square corners fascinated me.

Ralph's views about the recognition of objects were summarized in his statement that "What you see is your mind's best guess, based on all the clues available, as to what is actually out front in the visual field."

Because I was taught by Ralph Evans, I was not confused this past week when momentarily I confused a squirrel with a big shaggy dog. I thought that at first glance out my bedroom window, a neighbor's large dog was running through my garden at the bottom of the hill. A second glance, however, placed the moving object not in the garden at the bottom of the hill, but in a tree between. With the object much nearer, the size became smaller and the dog became a squirrel. It has been suggested by some to whom I told this experience that there is something definitely wrong with an individual who cannot tell a squirrel from a dog. Ralph taught me, however, that the confusion was not an unlikely one. It is the whole scene that is recognized, not just the animal.

Ralph encouraged me to document my concepts of gloss, texture, and other geometric attributes of appearance because he felt that they were a vital part of the recognition process. Because of his interest, he helped me in taking photographs of gloss phenomena and showing me how vitally these geometric aspects of appearance were involved in the overall process of visual recognition.

I owe much in my conceptual view of the fundamental processes of vision and object recognition to what Ralph taught me.

Richard S. Hunter

I am honored to be asked to offer some of my recollections in memory of Ralph M. Evans. In doing so I limit myself to three of my experiences with Ralph in the 20 years I knew him. All of these illustrate his warm humanity and willingness to share his vast knowledge.

Late in 1958 I was faced with the problem of preparing a set of lantern slides to illustrate Dr. V. C. Vesce's Matteillo lecture on the light-fastness of organic pigments. We had to show, with reasonable accuracy, the nature of the change on exposure of a series of pigments covering the spectrum. I asked Ralph for advice and not only did he recommend the proper film (Yes, it did come in a yellow box) but also found for us a professional photographer whom he knew would do the job as it needed to be done. The result was as fine a set of slides as I have ever seen in a technical lecture.

Some years later, when Ralph and George Gardner were visiting our home here in Manhattan just prior to an ISCC meeting, we talked a bit about making good prints from transparencies. At the time we had a pure white long-haired persian cat, and I had taken a picture of this white cat sitting on a white radiator cover in front of a white venetian blind. As you might expect the contrast left something to be desired. I showed the slide to Ralph and said that while the composition was good you could not print such a washed out slide. He turned to me and in a most solemn manner said "Remember whom you are addressing." As I began to munble an apology he broke into a wide grin and said "You can't print that slide."

Finally, I recall my discussions with Ralph in the early 1960's when Fred Billmeyer had started to write a simple book on color. While he applauded the attempt he stated that one could not write a simple book on color. Fred and I went ahead and wrote the book, which was published in 1966. It has enjoyed a moderate success, and now we have been asked to prepare a new edition. As I look over what we wrote, older and I hope wiser, I recall Ralph's words. As usual he was right. You cannot write a simple book about color.

It was a privilege to have known him.

Max Saltzman
Institute of Geophysics and
Planetary Physics
University of California
Los Angeles, CA

NEWS FROM MEMBERS

Mr. Richard Hunter, President of Hunter Associates Laboratories, and past president of the Inter-Society Color Council, Mr. Kenneth L. Kelly, Physicist at the National Bureau of Standards, Mr. John Olivary, a painter and Professor Alexander F. Styne, Chairman of the ISCC Sub-Committee on Human Response to Color participated in a discussion on Color over radio station WAMU/FM at the American University in Washington on July 21. The moderator was Mrs. Irma Aandahl and the discussion leader,

Mrs. Alyene Boren of WAMU/FM. The discussion ranged from the physics of light to the structure of pigments and problems of psychological implications. The lively questions in the 90 minute program phoned in by the audience were ample proof of the interest created by the speakers.

* * *

The Association for Finishing Processes of SME has announced that its President-Elect for 1976-77 is Ralph E. Pike, of E. I. du Pont de Nemours & Co., Inc., Wilmington, Delaware. Pike became President-Elect at AFP/SME's recent semi-annual meeting and will be installed as President at the Association's annual meeting in Cincinnati September 13, 1976.

Pike is a Research Fellow in du Pont's Fabrics and Finishes Department. He will succeed Dr. Emery P. Miller, Indianapolis, as AFP/SME President. Pike said his plans for AFP/SME include broader coverage of finishing processes technology as used in product manufacturing, and continued close cooperation with specialized interest groups in the finishing field.

"Technical programs similar to the highly successful powder coating and radiation curing conferences will be expanded," Pike said. "More comprehensive coverage of the role of the finishing process in product manufacturing is needed," he said, "and AFP/SME also will remain flexible in adapting to the unpredicatable changes that face the finishing specialist in the next decade."

* * *

Design and color consultant James May will teach a weekly course "Surface Design: printed carpets and rugs" at The Fashion Institute of Technology in New York City commencing with the fall semester. According to Professor Herbert Jacobs, dean of the Textile Design School, this course will be the very first time The Fashion Institute of Technology will offer an accredited course for design and color specifically geared to the floor covering industry and its future development. Mr. May is director of The James May Organization in New York, color consultant to the home furnishings division of Hercules Incorporated, Wilmington, Delaware, an active member of the Styling and Design Advisory Council, The Carpet and Rug Institute, Dalton, Ga.; The Inter-Society Color Council; The American Association of Textile Chemists and Colorists and a past board member and national chairman, the Industry and Trade Committee, The National Society of Interior Designers. Mr. May has guest lectured on Applied Art in many universities and art academies both in the United States and abroad and has authored a paper "Carpet Printing" published in 1973. To date, 19 students have pre-registered for the design course which will be inaugurated on September 7th, 1976.

NEWS FROM MEMBER-BODIES

Technical Association of the Pulp and Paper Industry (TAPPI)

COLOR DIFFERENCE EVALUATION

TAPPI has published a technical information sheet on "The Determination of Instrumental Color Differences," designated TIS 017-9 and issued March 1976*. This TIS resulted from a need that was felt by the Optical Methods Committee, but in large measure it is the work of ISCC (and TAPPI) member Robert F. Hoban. It comprises two pages of text that give concise statements on the background and development of fourteen color difference formulae presented on the next two pages. It concludes with a flow-chart-like table showing the development of the three major groups of color and difference systems and a list of thirty-four pertinent references.

The TIS is very short and so can give only brief accounts of the development of the various systems, but it is so well done that it deserves being called to the attention of those who do not regularly encounter TAPPI publications. Regrettably there are a few editorial and typographical errors, but these are minor so that no one should be seriously misguided by them; for example, a typographical error appears on page two of the document where the CIE L*u*v* system is referenced as L*U*V. The symbols are correctly given in the formulae section.

The TIS carefully refrains from suggesting a preferred equation, but I point out that the CIE Colorimetry Committee has recommended and the entire CIE Membership is now voting (June 1976) on approval of the last two. Many of us would like to have seen the Colorimetry Committee recommend only one system for color measurement, but it was the Committee's conclusion that each of these two color systems (L*u*v*) and (L*a*b*) has certain advantages as well as deficiencies so that in their view it would be wrong to recommend one over the other. In the minds of many of us, however, it will be desirable to have data reported in one system and for this reason we suggest that the L*a*b* equations be used, unless there is some extenuating circumstance. Such a circumstance might be the need to associate color differences with a chromaticity diagram that is a linear transformation of the CIE x,y diagram.

*All members of TAPPI should have received TIS 017-9 in the recent looseleaf mailing. Individuals who are not members of TAPPI can obtain a copy by writing to TAPPI, Publications Order Department, One Dunwoody Park, Atlanta, Georgia 30341. The price is \$2.00, postpaid.

Harry K. Hammond III

Federation of Societies for Coatings Technology

Two of the highlights in the program of the Annual Meeting of the Federation were reported in the Federation's newsletter as follows:

Activities of Problems Committee of Inter-Society Color Council. "Colorants and Colorant Behavior" — R. Hoban, of Sandoz Corp. "Color Measurement" — H. R. Davidson, of Davidson Colleagues. "Color in Art, Design, and Architecture" — R. Spillman, Industrial De-

signer.... "Color in Graphic Arts, Photography, and Television" — C. S. McCamy, of Kollmorgen Corp.

Bicentennial Color Program. "History of Colors as Associated With Architectural and Furniture Styles From the 17th Through the 19th Centuries" — M. Philipps, of the Society for Preservation of New England Antiquities; Color Trends Mirror Changing Lifestyles" — B. Bender, of PPG Industries, Inc.

The Federation will meet October 27-29 at the Sheraton Park Hotel in Washington, D.C. The following schedule of meetings for 1977 has been announced:

March 2-4.... Western Coatings Societies Symposium and Show, Los Angeles.

March 23-26 . . . Southern Society Annual Meeting. New Orleans.

May 5-7 Pacific Northwest Society Annual Symposium. Portland.

May 20-21 Federation Council and Board Meetings. Louisville.

October 26-28. . Federation's 1977 Annual Meeting and Paint Industries' Show. Astrohall, Houston.

The Federation's Annual Meeting and Paint Show, the Southwestern Paint Convention, which normally would be held in Houston in 1977, has been cancelled.

Spring Meeting Color Marketing Group (CMG)

The 1976 Spring Meeting of CMG was held May 2nd to May 4th in Boston, an appropriate location to coincide with the country's Bi-Centennial celebrations.

José Martin, Director of Fashion and Design for Allied Chemical Corporation presented after dinner slides of "Alaska – The Big Land" an informative view of one of our younger states.

Monday, May 3rd was down to serious business. As always CMG lived up to its high caliber of talent by presenting an indepth analysis of their 1976 color directions. This expanded on the Spring theme "Where Have All The Colors Gone." A CMG panel discussion of the success and failure of color directions as applied to each specific field. The areas of color application were well represented.

Paint. Kenneth X. Charbonneau, Benjamin Moore & Company; Kenneth W. Edmunds, The Sherwin-Williams Company.

Carpet. Joseph B. Maffett, West Point Pepperell; Daniel C. Stark, Deeling Milliken, Inc.

Flooring. Harry A. Shortway, Congoleum Industries, Inc.; William Marley, GAF Corporation, Floor Products Division.

Wallcovering. Richard Hoffman, Reed Decorative, Prodducts Limited. Fabric and Fashion. John Rinderman, Burlington House Fabrics; Patricia Barnes, Color Marketing Consultant,

Ceramic Tile. Robert W. Miracle, Interpace Corporation; John Wagstaff, Mid-State Tile Company.

Laminates. J. Allen Montei, Formica Corporation; Murray Smith, Decorative Micarta Division, Westinghouse Electric Corporation.

Interior Design. Beatrice West, Beatrice West Studios, Inc.; Bonnie Bender, PPG Industries, Inc.

Appliances. Roger Lahm, Kohler Company.

Fibers. Victor A. Brown, Dow Badische Company.

Automotive. Lois B. Zolliker, American Motors Corporation; Paul Britt, E. I. DuPont de Nemours & Company, Inc.

There were also closed sessions for chairholders to prepare future color directions and an orientation program for non-members.

A general session included a presentation by Faber Birren and Nadine Bertin of House and Garden.

Other after dinner presentations included "200 Years of Fashion," "The New World" and "New Technology – Impact on Styling and Marketing."

CMG's Autumn Meeting will be held in San Francisco.

Joyce S. Davenport ISCC-CMG

American Society of Interior Designers (ASID)

COLOR STUDY GROUP FORMING

The Inter-Society Color Council, of which ASID is a member, urges greater participation of the design groups to provide the necessary balance for research in color.

ASID Committee Chairman Anna Campbell Bliss attended the annual meeting, as did Committee member Bertram Laudenslager. She reported that much of the research being conducted by the Council is significant to design work.

Of special interest to designers was a seminar on "Color in the Building Industry" with Milo D. Folley, Chairman.

Papers presented revealed the complexity of the problem when accurate specification of color is desired. The development of a universally accepted color language offers a partial step but does not solve the problems created by the gloss or texture of a surface, transparency of materials, and the quality of the light source. The exactness with which specifications for color and surface must be met will vary and the cost of such accuracy in terms of measuring equipment, printing, et cetera, may be the limiting factor.

A seminar devoted to "Human Response to Color" led by Alexander F. Styne, in which Dr. William Beck, Director of the Guthrie Medical Research Center in Sayre, Pa. illustrated the test situations he has set up to study the desirable qualities and levels of lighting, the effect of color in hospitals, was also attuned to the practice of interior design.

Dr. Beck advised designers of hospital facilities to concentrate on benefiting the patient. The quality of light, for example, should enhance his appearance with warmer light used, but without too much yellow content. "Doctors don't rely on the color of face or tongue for diagnosis, but the relatives of the patient do," he noted. He also reported that only 18% of the patients in a general medical and surgical facility are in bed all the time and 5% are dying. The remainder are up for varying periods of time and the need to counteract boredom and to stimulate eating are important considerations.

Members who would like to participate in a color study group should send their names and addresses to Anna Campbell Bliss, 27 University Street, Salt Lake City, Utah 84102. Those who responded at the seminar in Los Angeles should repeat their interest as the list was lost in transit.

The group would share information, examine pertinent problems, consult with the education, research and student committees, and organize significant material for ASID.

Reprinted from ASID Report, July 1976.

AVAILABLE GRANTS FOR INDIVIDUALS

ASID members may apply to the National Endowment for the Arts for the following grants: (1) Public Education and Awareness category - to assist projects which will broaden public design awareness and participation in resolving design issues. Postmark date, December 1, 1976; (2) Academic and Professional Research category – to assist research projects conducted by professional schools, research organizations and other groups active in design fields, and qualified individuals who are normally associated with such organizations. Postmark date, December 1, 1976: (3) American Architectural Heritage category – to assist planning for the conservation of historic structures, significant districts and special landscapes. (No construction funds.) Postmark date, September 1, 1976; (4) Cultural Facilities category – to assist communities in the planning and design of exemplary cultural facilities; to encourage the commitment of local public and private money for project implementation. Postmark date, September 1, 1976; (5) Design Fellowships category - to assist practicing professional designers of exceptional talent who wish to engage in special independent activity. Postmark date, December 1, 1976.

Contact the NEA, Wash., D.C. 20506, Mail Stop 503 for brochure on Grant Program guidelines on Architectural & Environmental Arts.

Reprinted from ASID Report, July 1976.

Society of Photographic Scientists and Engineers (SPSE)

SESSIONS SET FOR SPSE FALL SYMPOSIUM ON BUSINESS GRAPHICS

The technical sessions of the SPSE 16th Annual Fall Symposium have been set according to an announcement by Joseph Gaynor, Innovative Technology Associates, General Chairman and Ken Shimazu, Polychrome Corporation, Papers Chairman.

Business Graphics is the subject of the symposium to be held on November 9-12 at the Marriott Twin Bridges Hotel, Washington, D.C. Sessions to be included are: Photocopy and Duplication, I. Tashiro, Ricoh Corporation, Chairman; Computer Related Business Graphics, S.L. Hou, Mead Corporation, Chairman; Micrographics, R.G. Zech, Harris Electro-optics, Chairman; Photofabrication, A.S. Deutch, Polychrome Corporation, Chairman; Prepress Graphics, A. Materazzi, U.S. Government Printing Office, Chairman; Specialized and Novel Business Graphics, G.W. Stroke, State University of New York, Stonybrook, Chairman.

Other events of the Business Graphics Symposium include special hours for consultation with the speakers and an evening meeting of the SPSE Business Graphics Technical Section. Dr. Gaynor is the Chairman of this section and will preside. Program and registration information may be obtained from the SPSE Office, R. Wood, Executive Director, at 1330 Massachusetts Avenue, N.W., Washington, D.C. 20005; Telephone (202) 347-1140.

SPSE ISSUES CALL FOR PAPERS FOR PRESENTATION AT 30TH ANNUAL CONFERENCE IN LOS ANGELES IN MAY, 1977

Dr. Edwin C. Hutter and Dr. George Duffin, Papers Co-Chairmen of the 30th Annual Conference of the Society of Photographic Scientists and Engineers, have issued the first call for papers for presentation at the meeting.

Papers should be suitable either for the general field of Photographic Science and Engineering or for the specialized seminars on Image Processing, Photoconductor Imaging Technology, or Color Photography. As in the past, papers are allocated 30 minutes, including discussion periods. Authors Applications together with a 300-400 word summary (two copies) should be submitted no later than January 14, 1977.

Applications and abstracts of papers relative to physics and engineering should be sent to Dr. Edwin C. Hutter, 54 Van Dyke Road, Princeton, New Jersey 08540. Papers relating to chemistry should be sent to Dr. George Duffin, 3M Company, 3M Center, Photographic Products, Building 209-15, St. Paul, Minnesota 55101.

The SPSE Conference will be held May 1 to 6, 1977, at the Sheraton Universal Hotel, Los Angeles, California.

Newsletter_____ Page 9

DR. EDWIN H. LAND OF POLAROID AMONG THOSE HONORED BY SPSE AT 1976 ANNUAL CONFERENCE

Howard J. Hall, President of the Society of Photographic Scientists and Engineers announced the establishment of a new award, the Lieven Gevaert Medal, and its presentation to Dr. Edwin H. Land of Polaroid Corporation. Dr. Land was one of 19 people honored by SPSE at its Honors and Awards Luncheon, May 27, 1976 as part of its 29th Annual Conference and Seminar on Color Reproduction at the Barbizon Plaza Hotel in New York, May 23-27.

The Lieven Gevaert Medal, established by Agfa-Gevaert to honor the founder of Gevaert, recognizes "outstanding contributions" in the field of Silver Halide photography. Dr. Land was selected on the basis of his contributions, the development of a one-step process for both black-and-white and color photography, which has created revolutionary changes in both the technology and use of photography.

Industrial Designers Society of America (IDSA)

Evolution/Revolution is the theme of the 1976 IDSA Annual Meeting, to be held at the Benjamin Franklin Hotel, Philadelphia, October 9-12.

Highlighting the four day meeting will be Jules Bergman, ABC News Science Editor; Victor Papanek, FSIA, author and designer; Arthur J. Pulos, professor and Chairman of the Department of Design at Syracuse University and President of Pulos Design Associates; and Raymond Spilman, FIDSA, who has headed his own company, Raymond Spilman Industrial Design, for thirty years.

BOOK REVIEW

Light and Color, Clarence Rainwater, A "Golden Science Guide," Golden Press, New York, 1971, 160 pp., 238 color illustrations, paper, \$1.95.

This surprising and delightful little book on color was written by Clarence Rainwater, edited by James Hathaway, James Skelly, and George Fichter, and critically reviewed by Dr. Frederick L. Brown before publication. None of these individuals (in so far as I can tell) is, or has been, a member of the ISCC. They acknowledge (among other sources) a few recognizable publications, such as Burnham, Hanes, and Bartleson's report for the ISCC on color facts and concepts, the OSA's *The Science of Color*, Ralph Evans' two books on color and color photography, Neblette's *Photography*, and Sears' *Optics*.

The managing Editor of the comprehensive golden guide series is Vera R. Webster. The "Golden Science Guides," as a part of that series, cover zoology, botany, weather, Indian arts, flying, families of birds, land forms. geology, and presently light and color.

In the Foreword, Vera Webster states that the author has singled out "The phenomena of light and color and describes the scientific concepts in easily understood terms." This statement is reminiscent to this reviewer of

the remarkable difficulties encountered in the task of ISCC Subcommittee 20, Basic Elements of Color Education, in trying to arrive at a "primer" of color without reduction or gross misrepresentation of scientific accuracy.

This well-written, small book, profusely illustrated in color, is not really a primer but goes a long, compromising way in that direction, a direction that had seemed nearly impossible to some of us. The subject-matter covered has a decided emphasis on the area of applied physics, in contrast with our report, which reviewed in some detail (also) many of the phenomenal or psychological aspects of color-as-perceived-by-human beings — a subject beyond the scope of the book being reviewed.

Contents cover briefly the "nature" of light and color, light sources, illumination, light behavior (sic!), optical instruments, seeing light and color, the "nature" of color, color perception, color systems, and light and color as tools.

Some statements suggest confusion in the process of definition:

Light is the stimulus for the sense of sight — the raw material of vision.

Physiologists study visual processes and psychologists study the effects of visual and color perception.

After long study, a committee of the Optical Society of America reconciled the differences and set up a clearly defined and consistent terminology.

Only within the parochial limits of colorimetry could I agree with the last statement.

I found only one small error in proofreading. In a footnoted (but admirable) attempt to convert the speed of light to metric units, it was stated that 186,282 miles per second equals "approximately 3 X 10 meters per second."

In contrast with the more formal and "stripped" statements to be found in our report on color facts and concepts, this book is certainly readable. The many color illustrations help a great deal in presenting color information.

This reviewer would suggest that this small book might well be used as a substantial but partial guide to some future (and perhaps better) presentation of color facts than was found in Color: A Guide to Basic Facts and Concepts, written by Burnham, Hanes, and Bartleson, sponsored by the ISCC, and published by Wiley in 1963. That report was, of course, written as a series of concise factual statements that would hopefully stand alone out of context and ease the process of translation into other languages, an achievement that was anticipated as part of the overall plan but which has yet to be accomplished.

Educators should find this book useful as a dooropener, even though in parts it does not do full justice to scientific fact — probably impossible.

R. W. Burnham Fourth Lake Old Forge, NY 13420

NBS-MCCA COLLABORATIVE REFERENCE PROGRAM

In 1972, the National Bureau of Standards established a

color and appearance collaborative program to provide a participating laboratory with a means to check periodically the level and uniformity of its testing in comparison with that of other laboratories. An important byproduct of the program is that it provides a realistic picture of the state of the art in appearance measurements for NBS and voluntary standardization activities.

The interchange of components and products that must match in color and appearance is of interest to producers of such products as paint, plastics, paper, textiles, food and cosmetics, as well as to the users of these products, which include the automotive and appliance industries, highway departments, government and the consumer. Failure to adequately control the appearance and color of consumer products is a major cause of consumer dissatisfaction.

Today there are over 100 participants in the program, which is sponsored by the Manufacturers Council on Color and Appearance—a non-profit organization of manufacturers of color and appearance instruments.

Participants select the tests in which they wish to participate. This choice is made on joining the program, but additional tests may be added at any time. Also new participants may enter the program at any time. The application in the center of this booklet may be used for the initial selection of tests.

Test samples are distributed bimonthly, quarterly or semiannually (i.e., every 2, 3, or 6 months), depending on method.

Provisional range results are provided with the samples for one or both of the test levels, depending on method. The provisional values permit serious discrepancies to be detected without delay. (It is left to the discretion of the laboratory supervisor as to whether these values should be known to the operator.)

Each participant tests the samples, following instructions provided for each test method. The full check on a single instrument should normally take no more than 30 minutes. The test results are then sent to NBS for analysis. The participant is also asked to report other information relevant to an accurate analysis, such as test conditions and the instruments used.

Industry mean, best value and other statistics, are developed from the data by NBS. The best values are estimates based on a careful examination of all data, both current and past, with special attention to results obtained by the National Bureau of Standards and other recognized reference laboratories in this and other countries.

A quick report depending on method is prepared for each participating laboratory reporting data on time. This report shows the industry mean values, and the deviations of the laboratory's results from these values for each test method.

A longer summary report showing the data from all participants, is also prepared. In this report, each laboratory is identified by a code number so that the information is maintained on a confidential basis. However, instruments are identified by type so participants can compare their results with those obtained on similar instruments of different manufacture. This report includes test averages, best values and standard deviations for in-

dividual participants and for the group as a whole. The information is presented in such a manner that a participant may readily determine the level and variability of his results in comparison with those of the other laboratories.

Precision statements, where applicable, such as contained in ASTM, TAPPI, ISO, etc. are included. Participants can check their performance level against the reproducibility statement given in the test method or specification.

For answers to any questions you may have concerning the Collaborative Reference Programs or to receive a single complimentory copy of one of the reports contact E. B. Randall, Jr., or C. G. Leete, B360 Polymer Bldg. National Bureau of Standards, Washington, D.C. 20234, (301) 921-2983.

EDITOR'S APOLOGY

One of our observant readers with a better memory than I discovered that the items published from the Color Group Bibliography that were published in the March-April issue (No. 241) of the *Newsletter* duplicated items that had been previously published in the July-August issue (No. 237). I hope that you will accept my apology for wasting your space. I shall do my best to make sure that it does not happen again.

One good thing came out of the mistake, for it stimulated the previously mentioned eagle-eyed and elephant-memoried reader to compile previous reprintings of the bibliography. His compilaton follows.

COLOR GROUP BIBLIOGRAPHY

The Colour Group (Great Britain) has maintained a numercial (approximately chronological) list of references to articles, patents, and books on color that have appeared since 1970. The list is only as complete as the references supplied to it on a volunteer basis. Most of the references are to articles published in English.

The Colour Group published this list in its own newsletter and has kindly granted the ISCC permission to republish. The first list was published as a supplement to the ISCC Newsletter. Subsequently a number of lists were published in the Journal of Color and Appearance. When publication of that Journal ended, the Newsletter returned to periodic publication of the lists, first as supplements to the Newsletter itself. It now appears useful to record where the various sections of this bibliography can be found.

Item Numbers	Collection Interval	Publication Medium
1-300	1969-70	Separate item with ISCC Newsletter No. 211, Mar-
301-573	1970-71	Apr 1971, 23 pp. <i>J Color & Appearance</i> v 1, n 4, Feb-Mar 1972, p 27-34.

547-608	1971	J Color & Appearance v 1, n 5, Apr-May 1972, p 47.
609-694	1972	J Color & Appearance v 1,
695-840	1972	n 6, Sep 1972, p 46-48. J Color & Appearance v II, 1, Spring 1973, p 48-51
841-910	1972	n 1, Spring 1973, p 48-51. J Color & Appearance v II, n 2, Summer 1973, p 56-57.
911-1121	1972-73	Supplement, ISCC News-
1122-1269	1973-74	letter No. 228, Jan-Feb 1974, 16 pp. Supplement, ISCC News- letter No. 229, Mar-Apr
		1974, 11 pp.
1270-1322	May/Jun 1974	Newsletter No. 231, Jul-Aug 1974, p 6-7.
1323-1369	Jul/Aug 1974	Newsletter No. 232, Sep-
1370-1465	Sep 74/Feb 75	Oct 1974, p 11-12. Newsletter No. 237, Jul- Aug 1975, p 10-12.

Reprints or photocopies of the above items can be obtained from the ISCC Secretary for a nominal charge. Details are given in the membership list.

Harry K. Hammond III

COLOR SCIENCE ASSOCIATION OF JAPAN (CSAJ)

CSAJ has announced new officers for 1976-1977.

President—Dr. Genro Kawakami, Japan Color Research Institute.

Vice-President—Dr. Ryo Seki, Dokkyo Medical College. Officers—Dr. Toshiro Urahata, Osaka Municipal Technical Research Institute; Dr. Haruo Shogenji, Independent. The address of CSAJ has also changed.

New: c/o Japan Color Research Institute, 1-19, Nishiazabu 3-chome, Minato-ku, Tokyo 106, Japan. Old: c/o Tokyo Medical College Hospital, 7-1.

Nishishinjuku 6-chome, Shinjuku-ku, Tokyo 106, Japan.

The contents of Acta Chromatica as they appeared in Vol. 3, No. 1 were somewhat different from the announcement in a previous issue of the Newsletter (March-April 1976, No. 241). Dr. Genro Kawakami's paper, "Experimental Studies by Making Use of Color-Difference Stimulator did not appear in the issue. It will be published in the next issue instead.

MEETINGS

TAGUNG DES DEUTSCHEN FARBENZENTRUMS 1976

Ort: Berlin

Bundesanstalt für Materialprüfung (BAM), Unter

den Eichen 87, 1 Berlin 45

Zeit: Montag den 1. bis Mittwoch den 3. November

1976

Thema: FARBE UND MATERIAL Technologie und

Gestaltung Themengliederung: Unter den Gliederungstiteln "Farbe und" sollen folgende Bereiche behandelt werden (nachfolgend in ABC-Reihenfolge):

Architektur Beleuchtung

Beschichtungstechnologie

Chemie (Farbstoff- und Pigmentchemie)
Design (Investitions- und Konsumgüterdesign)

Farbmetrik

Kunst (bildende und darstellende Kunst)

Reproduktionstechniken (Druck, Foto/Film und Fernsehen)

Ausstellung: Zum Tagungsthema wird eine Ausstellung veranstaltet.

Die Organisation dieser Ausstellung ist freundlicherweise wieder übernommen worden von: Herrn Architekt Heinz Krewinkel, Tel. 07031-24552, Gerokweg 8/1, 703 Böblingen. Ausstellungsmaterial bitte baldmöglichst anmelden.

Die Tagungsteilnehmer kommen aus unterschiedlichen Bereichen, in denen die Farbe u. a. ein Arbeitsmittel darstellt, so daB es empfehlenswert ist, bei den Vorträgen besonderen Wert auf eine gute Allgemeinverständlichkeit zu legen, im Sinne einer angestrebten interdisziplinären Verständigung.

Wir erwarten etwa 250 Tagungsteilnehmer.

Vortragsdauer: Ca. 20 Minuten.

Diskussionszeit wird, falls gewunscht oder erforderlich, zusätzlich von uns mit eingeplant

Termine zu den Referaten:

Anmeldungen mit genauem Titel und kurzer Inhaltsangabe (ca. 10 Schreibmaschinenzeilen) bis zum

1 März 1976

Kurzfassungen der Referate für die Tagungsteilnehmer vor der Tagung (ca. 20

Schreibmaschinenzeilen) bis zum

1 September 1976

Überarbeitete Referate für das

Farbenforum (Tagungsband) bis zum

1 Januar 1977

Techniche Anlagen im Vortragsraum:

Draht lose Tonübertragungsanlage mit Diskussionsmikrophonen

2 Dia-Projektionseinrichtungen

Overhead-Projektionseinrichtung

Episkopeinnichtung für Vorlagen bis zum Format von DIN A 4

Film-Anlage für 16mm-Filme mit Magnet- oder Lichtton. Kabinenkästen mit allen Lichtarten fur Demonstrationszwecke.

TEXTILE MUSEUM

Fifth Annual Rug Convention - October 15-17, 1976.

Tentative Program

FRIDAY, October 15

4:00- 6:00 pm Registration

6:00- 8:00 Cocktails and Buffet

8:00-10:00 Opening of the exhibition

"Animal Trappings and Tent Furnishings from Private Collections."

SATURDAY, October 16

9:00- 9:30 am	Coffee and Danish
9:30-12:30 pm	Lectures and Discussion
12:30- 1:30	Box Lunch
1:30- 3:30	Lectures and Discussion
3:30- 5:30	Rug Workshops and Films
7:30-11:00	Cocktails, Dinner and Evening
	Program

SUNDAY, October 17

9:30-10:30 am Champagne Brunch 10:30- 1:00 pm Rug Show and Tell

INVITED SPEAKERS

Jennifer Housego, Co-author, *Tribal Animal Covers* from Iran, Iran Rug Society, 1975.

Brian Spooner, Anthropologist, University of Pennsylvania and Associate Curator of Near Eastern Ethnology at the University Museum.

Ralph Yohe, Extensive field work in Turkey and Iran, Trustee of the Textile Museum.

For more information, write to: Textile Museum, Rug Convention, 2320 SStreet, N.W., Washington, D.C. 20008.

MASSACHUSETTS COLLEGE OF ART

COLOR WORKSHOP

A workshop titled "Teaching Color, Sense and Nonsense" was given June 23 through July 15, 1976 at the Massachusetts College of Art. The intended audience was teachers in all levels of art education and students of painting and color communication. It was a workshop that involved lectures, slide presentations, and practical exercises in making controlled color sequences and manipulating simultaneous contrast effects. The mediums handled will be collage, opaque paints (including Modular Colors), and color light synthesis.

The course was taught by Nathaniel Jacobson, and a news release about the course gives the following biographical information about Mr. Jacobson and the following statement by him on the nature of the course.

Nathaniel Jacobson, artist, teacher and colorist, has been Director of the Art Students' Workshop in Boston twenty-three years. He has maintained a deep interest in the study of color since his student days at the Massachusetts College of Art, where he worked under the guidance of Anna Hathaway, disciple of Albert Munsell, America's great pioneer in the exploration of color. Later, as a student at Yale's School of the Fine Arts, Nathaniel Jacobson practiced many of the disciplines of the historical painting mediums and techniques.

Since 1970 Binney & Smith, Inc., manufacturers of art education materials (and parent company of Permanent Pigments, which first formulated Modular Colors in

artists' paints) have sponsored his color research and his development of new forms of visual color demonstration.

Van Nostrand Reinhold has recently published Mr. Jacobson's Portfolio of Visuals, "The Sense of Color," which is being accepted as a standard reference work in art education.

A Point of View on Teaching Color — The aim of this workshop is to help the teacher present the sense of color — the wonder of its natural order — as an appropriate response to the student's own curiosity about this vital part of his communication. The study of color should not be deadened by the imposition of impractical, narrow color regulations. Nor should the rational investigation of color be avoided in the face of the challenge of the exciting magic of illusions that can be performed. Rather a delightful creative adventure into the realm of the nonsense can be built upon the knowledge of the basic sense of color within all of us.

We will explore teachable means to convey the sense and the nonsense of the color experience, both in the production of graphic art forms, as well as in the manipulation of our total visual environment.

PRODUCTS AND SERVICES

GLOSSY COLOR STANDARDS OF JAPAN

In Japan, the first edition of color standards based on the Japanese Industrial Standard JIS Z 8721 "Specification of Colours According to their Three Attributes" was published in 1959. Since then, about 6000 copies (six editions) have been distributed in Japan. However, the finish of the color chips in these editions was mat. Because most industrial products have glossy surfaces, there has been an eager demand for publication of glossy color standards.

Recently the seventh edition in which all color chips (14 by 18 mm) are glossy was produced by the Japan Color Research Institute. The finish is 70-85% at the 60 degree specular gloss angle, as in the Munsell Color Standards in High-gloss Surface.

The new edition consists of 40 separate charts (182 by 257mm) according to hue; 2.5R, 5.OR, 7.5R, . . . Each chart has color ships arranged vertically in the order of value and horizontally in the order of chroma as well as gray chips. There are 1928 colors in total, and, differing from Munsell's, each chip cannot be taken from the chart. Color chips in the chroma step, /1 and /3, are included in this new edition. The difference interpolation method was used for their chromaticity coordinates.

Accuracy of colors is kept within one unit with the achromatic colors and within two units with all of the chromatic colors, in terms of the CIE 1976 L*a*b* color difference formula.

The fixed price is about \$280 per copy, and can be purchased from the Japanese Standard Association, 1-24, Akasaka 4-chome, Minato-ku, Tokyo 107, Japan.

Genro Kawakami

COMMITTEE ON PUBLICATIONS

William Benson, Chairman Milton J. Pearson Ruth M. Johnston Donald Genaro Send Newsletter Items to Editor: Dr. William Benson 618 Constitution Ave., N.E. Washington, D.C. 20002

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- 1. Any person interested in color and desirous of participating in the activities of the Council for the furtherance of its aims and purposes . . . shall be eligible for individual membership (By-Laws, Article III, Section 2). Application forms for individual membership may be obtained from the Secretary (address given above).
- 2. The Council re-affirms its community of interest and cooperation with the Munsell Color Foundation, a tax exempt organization set up to acquire and use its funds to further aims and purposes very similar to those of the ISCC: to further the scientific and practical advancement of color knowledge relating to standardization, nomenclature and specification of color, and to promote the practical application of these results to color problems arising in science, art and industry. The Council recommends and encourages contributions for the advancement of these purposes to the Munsell Color Foundation. For information, write S.L. Davidson, NL Industries, P.O. Box 700, Hightstown, N.J. 08520.
- 3. The Council promotes color education by its association with the Cooper-Hewitt Museum. It recommends that intended gifts of historical significance, past or present, related to the artistic or scientific usage of color be brought to the attention of Christian Rohlfing, Cooper-Hewitt Museum, 9 East 90th Street, New York, New York 10028.