INTER-SOCIETY COLOR COUNCIL

NEWS LETTER NO. 114

SEPTEMBER, 1954

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Deane B. Judd
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[redacted]

[redacted] Black is a somber color. Here it calls attention, and helps to express something of our deep sense of loss in the death, on August 14, 1954, of our News Letter Editor, Dr. I. H. Godlove. His name remains on the masthead for this and the November "Jubilee Issue" since he had both issues so near completion. His wife, Margaret Noss Godlove, who has worked with I. H. on the News Letter for some time, will complete both numbers. Dr. Godlove had looked forward for so long, and had planned so eagerly for the Jubilee Issue to celebrate the 100th issue of the News Letter under his editorship, that we quite agree with Mrs. Godlove in sincerely doubting that he want a memorial issue made of it. This was to be an issue "of rejoicing and accomplishment." We therefore shall hold to Dr. Godlove's plans for the Jubilee Issue, knowing that this in itself may be the memorial he would best like. Dorothy Nickerson, President

[redacted] Dr. I(saac) H(ahn) Godlove was born in St. Louis, Missouri, on June 13, 1892, one of four children of Lewis and Lillie Godlove. He attended Washington University of St. Louis, B.S. 1914; A.M. 1915. He was a fellow at Illinois in 1917, where he was awarded the degree of Ph. D. in chemistry in 1926. He first taught, as professor of chemistry at the Missouri State Normal School, Cape Girardeau, 1915-16, then as a teacher of chemistry at the University of Illinois, 1916-21, and as associate professor at the University of Oklahoma, 1921-25. In 1923 he married Esther Alice Hurlbut of Washington, D.C., whose loss in 1931 affected him deeply, and changed considerably the course of his work in the following few years. They had one son, Terry Francis, graduated from Lafayette in 1950, now a graduate student at Yale, a son in whom Dr. Godlove took great pride. From 1926-30 Dr. Godlove served as director of the short-lived Munsell Research Laboratory (under whose direction the Munsell Color Company produced the papers for the 1929 Munsell BOOK OF COLOR). He directed the exhibit on color for the New York Museum of Science and Industry in 1930-31, was special color editor for Webster's International Dictionary in 1921-32, and directed his own color service 1932-35.

Dr. Godlove went back to industry in 1935 as physicist and chemist in the technical laboratory of the E. I. du Pont de Nemours and Company at Wilmington where he worked under the capable direction of Dr. R. E. Rose, whose friendship he grew to prize. In 1943, following Dr. Rose's death, Dr. Godlove moved to the laboratories of the General Aniline and Film Corporation at Easton, Pa., where he was associated up to the time of his death. On August 6, 1949, he married Margaret Noss of Wilmington, Del., his devoted companion to the time of his death, and his co-worker in such activities as his News Letter editorship and his more recent work for Webster's. He served on the Board of Trustees of the Munsell Color Foundation from the date of its establishment in 1943 until his death; in 1948-49 he was Chairman of the Inter-Society Color Council; since 1937 he had been Editor of the News Letter. He died in Easton, Pa., on August 14, 1954, at 12:30 A.M., after undergoing an emergency operation on August 8 for an appendix which had ruptured. He fought hard to live, but peritonitis won the fight.

Dr. Godlove was active in both the Optical Society of America and the American Association of Textile Chemists and Colorists, and was a member of the Archeological Society of America. He served on the Colorimetry Committee of the O.S.A. for many years, and was a joint author of its 1953 report: The Science of Color. For many years he served either as member or chairman of the AATCC Color Committee, and represented the AATCC in the Inter-Society Color Council as one of its delegates. His specialty was the measurement and specification of color, including the expression of small-color-differences. He was interested also in fluorescing colors, indeed, until 10:30 P.M. on the evening on which he was operated, he had expected to attend a session the next day in New York of Dr. Goldwasser's committee on ISCC Problem 18: The Colorimetry of Fluorescing Materials. His avocation concerned aesthetic problems in color, color harmony, and the history of color in art and archeology. His many articles in the News Letter on such subjects bear witness to this interest. He was an ardent tennis player until very recent years, and was a good bridge player (he once spent a great many months figuring out the probabilities of holding certain types of card distributions). His interests were wide, his intellect keen, and he was most generous in sharing his wide knowledge of the physics and chemistry of color with those who sought his help.

The Inter-Society Color Council has suffered a great loss.

From I.S.C.C. Officers, from Board members, from News Letter readers - indeed - from a wide variety of his many friends have come the following messages of appreciation and sympathy:

It was painful to believe my eyes when I saw an Associated Press dispatch saying that I. H. is no longer with us. This is a tragic loss which will be felt deeply by everyone who had the happy privilege of associating with I. H. We lost him too soon and his devoted efforts to bring light into the field of color will always be remembered. He will be much missed. Whatever are the achievements of Dr. Godlove as a scientist, they are reflected in his writings. But his associates will also cherish the memory of I. H. as a man of sensitive perception and friendly goodness.

Isay Balinkin

Dr. Godlove was directly associated with the Munsell Color Company from 1926-1930 and served as a Trustee of the Munsell Color Foundation from the time of its establishment in 1942. He contributed a very substantial part in the development and measurement of the standard papers published in the 1929 edition of the Munsell BOOK

OF COLOR. He was responsible for the idea and a large part of the work involved in the Standard Edition section on Traditional Color Names. After leaving the Munsell company his continued interest and application of the Munsell notation to his various endeavors introduced the system to a number of fields where it was previously unknown. His assistance and advice through the nearly 30 years of our association was always most graciously given and on matters of real concern often guided the way to an entirely new approach and solution of a problem. Dr. Godlove was a remarkable man. His contributions will serve others in his field for years to come and his spirit of generosity and friendship will be remembered always by those of us who knew and admired him.

Blanche R. Bellamy

In these hurried days when so many of us are superficial and expedient in our efforts, it was profoundly impressive to find a real scholar in the delightful personality of Dr. Godlove. Those who have read the News Letter will remember his reports on the history of color, as well as the abundant and rich bibliographic material he presented. These efforts, which must have required a tremendous amount of time and diligent study, will long be remembered as a sound contribution to the big subject of color.

Faber Birren

The JOURNAL of the OPTICAL SOCIETY of AMERICA has been proud to publish many of Dr. Godlove's papers. His work was of an outstanding character and his services to the JOURNAL as a reviewer of technical papers has been sought often and was sincerely appreciated.

Wallace R. Brode, Editor

We, the California Color Society, received the shocking news of Dr. Godlove's death just prior to our August meeting. When our chairman made the announcement - the reaction of all members present was incredulity. Although few of us have met Dr. Godlove personally we have become, during the past several years, very well acquainted with him through the I.S.C.C. News Letter.

The California Color Society

I have just been told by our New York office that Dr. Godlove has died, and the news came as a great shock. I spent a very happy day with him only last month, and feel a real sense of personal loss.

Technically he was a great man, but others are more fitted than I to speak on that subject. My own experience has shown me that he was also a great gentleman, and it is in that sense that I should like to pay my tribute. I have known him for some time by correspondence, and always enjoyed his delightful letters and his relish for the carefully polished phrase, but when I met him I realized that I had known only a small part of his great qualities. The day I spent with him will always be a treasured memory, and I mourn with you the loss to the I.S.C.C. of one of its great workers. He was telling me of all the work he had put into the special Jubilee number of the News Letter, and I wonder who can be found to devote so much time, understanding, and loving care to carry on that work.

G. J. Chamberlin, The TINTOMETER, Ltd.

Dr. Godlove was one of life's gentlemen whom it was a pleasure to know. His modesty and courtesy was only exceeded by his knowledge and breadth of vision. His passing will be mourned by those of us who knew him personally, as well as by the many readers of the I.S.C.C. News Letter who knew him only through his editing.

Chas. R. Conquergood

We, like many others, will greatly miss I.H., both as a friend and as a technical associate. His tireless activities on behalf of color committees gained him many friends. In addition, however, we owe him a special debt of gratitude as a teacher. It was he who first interested us in color measurement and who continually aided us in our work. From the beginning he emphasized the necessity of continually correlating objective measurements with visual observations and thus introduced to us a concept which did not appear in print until more recently.

Although I.H.'s publications are numerous and broad in scope, his influence on the science of color is not to be measured in publications alone. By his generous contributions of time and knowledge he has contributed to the work of many others. We are proud to be among those who have had the opportunity to learn from him.

Hugh R. Davidson and Henry Hemmendinger

As I think back over the years, the development of the Inter-Society Color Council has been marked by one outstanding characteristic. This is, the large amount of voluntary effort that a number of its members have put forth. No one was more constant or devoted to this duty than I. H. Godlove. His loss will be keenly felt but the bound volumes of the News Letter that we have will remain as silent monuments to his work.

Relph M. Evans

Although the Jubilee Issue of the I.S.C.C. News Letter is not to be considered as a memorial issue in honor of Dr. Godlove, it will, however, be a memorial to him in the broadest sense. When I realize that this will be the hundredth issue under the able editorship of Dr. Godlove, I can think of no more appropriate tribute to his ability and devotion to the Council

Waldron Faulkner

Those who worked with Dr. Godlove through the years, knew his energy, his unrelenting zeal and his tremendous volume of work in his chosen field. Being naturally kind and considerate, this zeal and energy were not confined to his own orbit of interests but were extended to his friends and associates. Absorbed as he was in his own work, he always found time to give a willing ear or a helping hand to the interests and problems of others. Dr. Godlove will be sorely missed by his many friends and associates.

Genevieve Gorman

Faith, open-mindedness, courage, and perseverance were Dr. I. H. Godlove. His faith in the Council and its members, his open-mindedness towards new ideas, his courage to hold to what he believed was right, and his perseverance as Editor-in-Chief of the ISCC News Letter illustrate his outstanding character. The broadness and scope of the nearly one hundred issues which he so skillfully composed tell the history of color during the past twenty years. These News Letters represent the number one reference to be explored by those who really want to have an insight into the complex relationships between the various branches of color.
Like many of his colleagues, I owe him a great debt for his inspiration and counsel, and for the example of integrity and tolerance he showed in his search for the truth.

Walter C. Granville

I was saddened to learn of Dr. Godlove's death, for he was one of the small group of persons who has pushed color science forward by giving a large portion of his personal time in addition to his professional time. He was a source of much information and was always helping the rest of us when we needed data which was available to him. Our work went forward more easily and more rapidly because of the help he generously gave. Color science has lost a consistent supporter.

Richard S. Hunter

The sudden passing away of our former Chairman and News Letter Editor, Dr. I. H. Godlove, has made me realize, perhaps for the first time how very wide and valuable his knowledge and work on color have been. I have worked closely with Dr. Godlove on color names and formulas for the size of color differences and on extensions of the Munsell book by means of fluorescent fabrics. Yet these are but a few of the aspects of color work where his ready cooperation and untiring studies will be sorely missed. Deane B. Judd

Although there are several thousand miles between Pennsylvania and California - this distance was no handicap for a fine and stimulating friendship with Dr. Godlove - his personality was such that distance became unimportant and we are sure that time also will not dim his memory for anyone who has known him - either personally or through his writing. Louisa and Albert King

It was with great regret that we learned of the death of Dr. Godlove, He will certainly be missed by the physicists, the colorists and his many friends throughout the industry. His work in connection with the Inter-Society Color Council, also the Optical Society of America has been most important and useful to all of us. William F. Little

Dr. Godlove's passing is a great sorrow to his scores of friends and a great loss to all in the field of color. He will be deeply missed. Harold Lloyd

I will always remember Dr. Godlove's enthusiastic participation in the discussions of papers on color at Optical Society meetings. Frequently, when no one seemed to have a question after a paper, Dr. Godlove would rise with a revealing comment, perhaps recounting some of his practical experiences or related experiments. His remarks would clarify the issues, and would often start the discussion merrily on its way, so the chairman finally had to shut it off. I always looked forward with pleasure to I.H.'s comments and found stimulation and encouragement in them. The few meetings he missed seemed vaguely disappointing. We shall all have to participate more fully, with something like his vivacity and sympathy for new ideas, in order to maintain the spirit of discussions of color which Dr. Godlove did so much to establish, and which he would certainly wish to have continued. David L. MacAdam

The loss of Dr. Godlove has come as a shock to all his friends, and to all of the members of the Inter-Society Color Council. I.H. was a part of the Council and was identified with the Council, particularly because of his untiring work as Editor of the NEWS LETTER, received by all. In addition to this work which he did, with such enthusiasm, he was always in the center of Council and Committee activities, for which everyone can be grateful. None of us will forget his charm, kindness and co-operation. I am sure that I echo everyone who knew I.H., when I say, we have lost a great friend and a staunch supporter. Norman Macbeth

Although I never had the pleasure of meeting Dr. Godlove, it seemed as though I knew him personally. The pages of the NewsLetter were such eloquent testimony of the character of the Editor. I used to marvel at the patience and the thoroughness with which the many books and articles on color were reviewed. It required a special form of ability to make complex ideas read so easily. He certainly made a most outstanding contribution to the I.S.C.C., and through the years his name will be always identified with the growth of that organization. James A. Meacham

Dr. Godlove's most admired gift was his singular ability to take a mass of highly

technical data and transform it into workable material for use by colorists and dyers. For many years he had devoted much time to the development of color tolerance formulaes both for perceptibility and acceptability of color differences. In this he worked closely with other members of the American Association of Textile Chemists and Colorists Color Committee.

The AATCC Color Committee, of which Dr. Godlove was Chairman from 1952 until the time of his death, was also honored in having him as Chairman 1943-45 and Secretary on several of the preceding and succeeding years.

It is possible that the greatest accomplishment of his career would have been the development of one or several color difference formulaes based on the results of a study still in progress. This involves the spectrophotometric measurement and visual evaluation of enameled panels obtained from the National Bureau of Standards and referred to as The Porcelain Enamel Institute Standards. Frank J. O'Neil

The news of the untimely death of Dr. I. H. Godlove came as a great shock to me. I have known I. H. as a business associate and a personal friend ever since the years of 1928-30 when we toiled together to make the new Munsell Book of Color a reality.

I consider I.H. to be one of the outstanding figures in the field of color measurement and specification. He has demonstrated time and again his exceptional knowledge and understanding of the problems involved in correlating the physical measurements of color with the psychological factors involved in color perception. Furthermore, the Inter-Society Color Council is deeply indebted to I. H. for his part in the formation of this organization and his continued efforts to advance its interests as a leading member in its executive body and as the faithful and untiring Editor of the I.S.C.C. News Letter.

Personally I derived a great deal of pleasure and inspiration from my many contacts with I.H. He always maintained a wealth of enthusiasm for his work and with it all he was a pleasant addition to any group. When I last saw him in the late spring, he appeared to be in the best of health and spirits, and it is hard to realize that I will not receive his cheery greetings any more, nor be able to exchange amusing anecdotes with him. I can only join with you and his many other personal friends in expressing our deep sorrow at his passing from this life. Walter M. Scott

I was most unhappy to hear that Dr. Godlove had died on August 14. There are many monuments to his memory in his contributions to color science and technology. Those of us who had the good fortune to know I.H. personally will have our private monuments to his memory. With the publication of the 100th issue of the ISCC Newsletter under his editorship, as a Jubilee Issue, according to his own plans and efforts, a final worthy contribution to the world of color will have been made. I. H. Godlove will be missed sorely as a friend, as a valuable contributor to the science of color, and as an enthusiastic editor of color information. Daniel Smith

Dr. I. H. Godlove or "I.H." as he was affectionately known for many years, was long considered a fountain-head of color information for the A.A.T.C.C. His outstanding accomplishments in the advancement of colorimetry are recorded permanently in scientific literature.

Whenever color measurements would help in the understanding of a problem - for instance in the comparison of light fastness standards for textiles - Dr. Godlove

always offered to do the necessary laboratory work and write a complete report. Whenever a less experienced textile colorist would dabble in the scientific measurement and nomenclature of color, he would inevitably consult with "I.H." to make sure he was on the right track.

We who are interested in color, particularly as applied to textiles, have lost an expert adviser and congenial friend. E. I. Stearns

The news of Dr. Godlove's death came as a shock. He had such a zest for living that it seems almost unbelievable. Josephine J. Tomaszewski

Although my association with Dr. Godlove extended over only the last two or three years, I was able very soon to recognize the keen mind which, combined with vitality and a delightful sense of humor, made him a character whose presence we shall always miss at I.S.C.C. gatherings. Scott Wilson

The following list of papers by I. H. Godlove indicates something of the wide range of his color interests. We find the NewsLetter a most suitable place for its publication since it is in the NewsLetter itself that so many other of his published articles and comments appear. Considerable correspondence on textile terminology and textile color standards has also appeared both in this country and in Great Britain in textile journals, particularly in connection with his work as chairman of the AATCC Color Committee.

1. Paint, Oil Chem. Rev. 84, No. 1, 20-3 (1927); The Munsell Color System
2. J. Opt. Soc. Amer. 20, 411-8 (1930); The wavelengths of Complementary hues
3. Bakelite Rev. 3, No. 1, 2, 5 (April, 1931); Color Standardization and Specification
4. J. Opt. Soc. Amer. 22, 429-30 (1932); Standardization of Munsell Colors
5. J. Opt. Soc. Amer. 22, 430 (1932); Note on a color-blindness Test of More Than 6500 Persons
6. Progress report of the Comm. on Measurement and Specification, Inter-Society Color Council Bull. No. 1, 6-18 (June 7, 1932); I. H. Godlove, Chairman
7. J. Opt. Soc. Amer. 23, 419-25 (1933); Neutral Value Scales; II, A Comparison of Results and Equations Describing Value Scales
8. Report for 1933, Inter-Society Color Council, Comm. on Measurement and Specification (color names, etc.) (Feb., 1934); I. H. Godlove, Chairman
9. J. Opt. Soc. Amer. 24, 264-6 (1934); Complementarism of the Standard O.S.A. and I.C.I. Observers
10. J. Opt. Soc. Amer. 24, 55 (1934); Comparison of Cobb's and Munsell Research Laboratory's Data on Neutral Value Scales and Equations Describing Them

11. Amer. Paint J. 19, No. 4, 59-61 (Nov. 5); No. 8, 48, 50, 52 (Dec. 3); No. 12, 46-8, 50, 52 (Dec. 31, 1934); Amer. Painter & Decorator 12, No. 5, 22-3 (May); No. 6, 26-7 (June); No. 7, 25-6, 28 (July, 1935); Dis-harmony in the Color-harmony field

12. Document No. 1162, American Documentation Institute, Washington, D. C.; Bibliography of Color 1922-34 (about 2700 references; Bibliofilm)

13. J. Opt. Soc. Amer. 25, 44 (1935); Color-blending Computations in Psychological terms

14. Amer. Dyestuff Rptr. 27, 148-56 (1938); Color Measurement in the Dyestuff Industry with Special Reference to Fastness Tests

15. J. Opt. Soc. Amer. 28, 50 (1938); Fading of Dyes and Tendering of Fabrics by Light as Problems for the Physicist

16. J. Opt. Soc. Amer. 30, 89 (1940); Some Problems and Methods of Dyestuffs Automatic Spectrophotometry

17. J. Opt. Soc. Amer. 30, 271-2 (1940); Application to Dyes of the ISCC Method of Specification of Filters

18. J. Opt. Soc. Amer. 30, 656-7 (1940); Extreme Cases of the Performance of the Eye Versus That of the Spectrophotometer

19. J. Opt. Soc. Amer. 30, 658 (1940); Change of Color With Change of Particle Size (general theory)

20. Paper at 1941 ISCC-ASTM Symposium on Color; Washington, March 5, 1941; publ. by Amer. Soc. Test. Mat., pp. 37-46; Color Standards for Opaque Materials

21. DuPont Tech. Bull. 21, No. 5, 118-25 (1941); Fluorescent Dyes in the Theater; Relation of Fluorescence to Fading and other Effects

22. J. Opt. Soc. Amer. 33, 351 (1943); Conditions for Dyestuffs Spectrophotometry and Some Techniques

23. J. Opt. Soc. Amer. 33, 351-2 (1943); Analysis of Some of the Chemists' Concepts of Color

24. Amer. Dyestuff Rptr. 32, No. 16, P-340-49 (1943) Report of the AATCC Comm. on Color (for 1943) (including about 250 classified bibliographic references); review by D. Nickerson in Inter-Society Color Council News Letter No. 49 (Sept., 1943)

25. 1943 Year Book of AATCC, 20, pp. 102-21; Report of the AATCC Comm. on Color (somewhat abbreviated form, including classified bibliography)

26. Chem. Engin. News 23, 946-7 (1945); Review of W. D. Wright's "The Measurement of Colour"

27. Amer. Dyestuff Rptr. 35, P408-12, P417 (Aug. 26, 1946); 1945 Bibliography on Color

28. Amer. Dyestuff Rptr. 35, P390-3 (Aug. 12, 1946); Colorimetry of Fluorescent samples (includes brief review of theory of fluorescence and relation of this to fading of dyes)

29. Rayon Textile Monthly 27, No. 12, 670 (Dec. 1946); The Color of Your Eyes

30. Indus. Engin. Chem. 39, No. 2, 8A, 10A, 12A (Report's Sect.; 1947); Colorful Thoughts; report by "R.L.D." on Lecture; Relation of Color Perception to Chemical Structure

31. Text. Research J. 17, 185-98 (April, 1947); Relation of Color Perception to Chemical Structure: a Critical Bibliography (94 critical abstracts and explanatory introduction)

32. Rayon Textile Monthly 28, 289-91 (May 95-7), 339-40 (June 93-4), 390-91 (July 92-3), 444-6 (Aug. 92-4)561-2 (Oct. 93-4 (1947); 612-4 (Nov. 94-6), 665-6 (Dec. 113-4 (1947); Color and Chemical Structure (general review)

33. J. Opt. Soc. Amer. 37, 778-91 (Pfund issue 1947); Limiting Colors Due to Ideal Absorption and Transmission Bands

34. Amer. Dyestuff Rptr. 39, p215 (April 3, 1950); Uniformity of Grading of the American, British and German Light-fastness Standards

35. Amer. Dyestuff Rptr. 40, P49 (Jan. 22, 1951); The Weber-Fechner Law and Dyeing Strengths

36. Amer. Dyestuff Rptr. 40. P 114-8 (Feb. 19, 1951); Uniformity of Grading of the American, British and German Light-Fastness Standards (reply to the Fastness-Test Coordinating Committee of the Society of Dyers and Colourists)

37. J. Opt. Soc. Amer. 41, 396-401 (June, 1951) Color Change From Daylight to Night Light, Calculated and Observed

38. Amer. Dyestuff Rptr. 40, 429-32 (July, 1951); Determination of the Strength of Dyeings

39. Amer. Dyestuff Rptr. 40, 549-8 (Sept. 3, 1951); Perceptibility and Acceptability of Color Changes in Fastness Tests and "on-tone" Fading

40. J. Opt. Soc. Amer. 41, 760 (Nov. 1951) Improved Color-difference Formula, with Applications to the Perceptibility and Acceptability of Fadings

41. J. Opt. Soc. Amer. 42, 204 (March 1952); Near-circular Adams Chromaticity Diagrams

42. J. Soc. Dyers & Col. 70, 238-240 (1954) Correspondence: Development of the Geometric Grey Scale

with A. E. O. MUNSELL

43. Paint, Oil & Chem. Rev. 84, No. 26, 10-2 (1927); Color Standardization

44. J. Opt. Soc. Amer. 18, 167-8 (1929); White Glass Photometric Standards

45. J. Opt. Soc. Amer. 24, 267-71 (1934) Colorimetry with Reflection Standards; a Quasi-psychological Method; Interconversion of Physical and Psychological Color Specifications

with A. E. O. MUNSELL & L. L. SLOAN

46. J. Opt. Soc. Amer. 23, 394-411 (1933); Neutral Value Scales; I, Munsell Neutral Value Scale

with E. R. LAUGHLIN

47. Paper Trade J. 111, No. 1 518-25 (1940); Tech. Assoc. Papers 23, 518-25 (1940); Paper Indus. 22, No. 3, 278, 281 (1940); (1940 ISCC-TAPPI Symposium on Spectrophotometry); Psychology of Color

APPRECIATION

The Godlove family wishes to express deep appreciation to The Color Council with its hosts of wonderful friends for their most sincere and numerous expressions of sympathy. It is truly heart-warming in a time of need to have so many real friends rally to your side. We thank you all.

Margaret Godlove

[redacted]

CALIFORNIA COLOR SOCIETY

This Society met August 25th at Art Center School Auditorium at 8:00 P.M. The guest speaker was Mr. Frank A. Holmes whose topic was "Color Film Duplicating." The Frank Holmes Laboratory has maintained exceptionally high color quality standards in the highly competitive field of commercial and industrial 35 mm. stereo slide and film strip duplicating.

CENTRE D'INFORMATION DE LA COULEUR

From Mr. H. Rabaté of the Ancien Eleve de L'Ecole Polytechnique in Paris we have had recent correspondence. As vice-president of the Centre d'Information de la Couleur, (which has the same general purposes in France of our ISCC here) he has sent to us a copy of their Bulletin No. 4, 1953 (Bulletin du Centre d'Information de la Couleur) a publication of 16 printed pages which contain four brief articles, one by Gérard Lutier, administrative secretary of the Centre d'Information de la Couleur (C.I.C.) on the general importance of color today; an item regarding international standardization - the ISO; another on fluorescent colors by M. Déribéré, secretary-general of the C.I.C., one on color in plastics by B. Persoz.

TCCA ANNUAL MEETING

The 39th annual meeting of The Textile Card Association of The United States, Inc. was held July 15, 1954. All members of the Board of Directors were re-elected as follows for the fiscal year 1954-5:

James Diephuis - Vice-President, Pacific Mills
W. J. Fullerton - Gen. Mdse. & Sales Mgr., Mooresville Mills
Henry A. Hafner - President, Hafner Associates, Inc.
John M. Hughlett - Vice-President, J. P. Stevens & Co. Inc.
W. Ralph MacIntyre - President, Joseph Bancroft & Sons Co.
Robert A. Ramsdell - Executive, E. I. duPont de Nemours & Co., Inc.
Newton J. Rice - President, Wear-Right Glove, Inc.
Armand Schwab - President, Armand Schwab & Co., Inc.
Roy E. Tilles, Sr. - President, Gotham Hosiery Co., Inc.
Henry C. Van Brederode - Vice-President, N. Erlanger Blumgart & Co.
John F. Warner - Vice-President, D. B. Fuller & Co., Inc.

The Board of Directors re-elected the following officers for the fiscal year 1954-5:

President:	Roy E. Tilles, Sr.
1st Vice-President:	Armand Schwab
2nd Vice-President:	John F. Warner
Treasurer:	Henry C. Van Brederode
Secretary:	Estelle M. Tennis

Miss Tennis was also reappointed Executive Secretary of the Association. In the fiscal year 1953-4, this Association reported a total of 20,740 regular color cards and advance editions were issued; 11,000 individual samples of colors and nearly 1,000 special sets of hosiery lengths and large fabric swatches were distributed. Significant was the fact that manufacturers of men's wear were well represented among new members. The new roster also included dyers and printers, importers and exporters, tanners and manufacturers of hosiery, gloves, shoes, millinery and various accessories. The Association has continued to cooperate with the government in establishing color standards for the Army, Air Force, Navy, Marine Corps and other departments. Various revised standard color cards have been issued for the services.

FLUORESCENT LAMPS

In a letter dated Aug. 16, 1954, Mr. Takashi Azuma and Mr. Leo Mori of The Matsuda Research Laboratory, Tokyo Shibaura Electric Co., Ltd. submitted a pamphlet entitled:- An Appraisement of the Color Rendering Properties of Fluorescent Lamps. These gentlemen believe that apparent luminance changes of objects by light sources are very important factors determining the practical acceptability of light sources. They propose a new method of appraising these properties dealing with the distances between color points of defined 20 color papers under the sample light and of those under the standard light in a 3-dimensional metric color space. Munsell renotation system is adopted as the metric color space, and the interrelation of the steps of the three attributes is assumed to be $0.1V = 0.4C = 1H$ (at $C = 6$). In one of the three methods adopted to calculate the color distances, chromaticity differences of the light sources are compensable by appropriate parallel displacement of the color solid; and it is concluded that this method gives the most reasonable measure of the color rendering properties of lamps for each color of objects.

It is apparent from the results that considerable color distortion occurs in colors in the neighborhood of red under the standard type lamps while the defects are markedly reduced by the deluxe type lamp and a mixed light of fluorescent lamps and incandescent lamps. The arithmetical mean of these distances of color displacements leads to the general conclusion that the deluxe white fluorescent lamp is

not only
superior/to the standard white fluorescent lamp but also to the special deluxe white fluorescent lamp which applies a kind of deep red phosphor.

Generally, the light distribution from the fluorescent lamp may be assumed as that of a perfectly diffused linear light source with uniform brightness, at least for the end of the lighting design. However, in the photometry of the fluorescent lamp, this assumption does not suffice. The brightness distribution of the elementary portion of the lamp is no more uniform but slightly pointed.

After studying the work of H. D. Einhorn and J. S. Sauerman and comparing the calculated data with the observed, the present authors concluded that the assumption on the brightness distribution by Einhorn and Sauerman was valid, only as a practical approximation but a fairly good one.

Some authorities offer the relation between total flux and horizontal intensity. The American Standard gives 9.25 at the photometric distance as long as five times the lamp length, while the Japanese Industrial Standard 9.3 at the distance more than four times the lamp length.

FISH LIKE PINK — An Associated Press clipping dated August 7 from Tokyo states that though this colorful fact may be subversive, fishing experts in Northern Japan have dyed their fishing nets pink and got triple the ordinary catch. The reporter commented that apparently all the netted fish saw red.

CAR COLOR SAFETY — An item from the Buffalo Evening News of June 15, 1954, submitted by R. E. Seeber, states that the color of your car may make the difference between life and death. The relationship of color to depth perception was made by investigators at the University of California at Los Angeles Institute of Transportation and Traffic Engineering. They found that the contrast of a color with its background definitely influenced a person's judgment of the distance of an object. Certain colors made object appear closer than other colors. 164 individuals viewed colored cards through a small aperture at a distance of approximately 200 feet. Cards which were either much darker or much lighter than the background appeared to be closer. Blue and yellow cards appeared to be as much as six feet closer than cards of other colors. A two-tonedcar of blue and yellow would seem to be one of the safest car combinations.

G. J. CHAMBERLIN VISITS THIS COUNTRY — It was a great pleasure for many ISCC members to meet and in some cases have an opportunity to talk at some length with Mr. G. J. Chamberlin, Managing Director of The Tintometer Ltd., Salisbury, England, on his recent visit to this country. On the day after his return, the Colour Group of the Physical Society visited the Tintometer factory, and at lunch Mr. Chamberlin was able to tell them that he had just come from visiting many of the officers of the Inter-Society Color Council. He reports that they too were pleased to hear of this fresh link between us.

At our request, in order that we might learn more regarding the standardization of Lovibond glasses, and their use in various fields, Mr. Chamberlin has sent us a selection of Tintometer publications. These include a number of leaflets concerning Lovibond equipment for use in specific fields:

The Visual Measurement of Colour in the Textile Dyeing Industry
Instructions for using The Lovibond Schofield Tintometer for measuring the colour of Self-Luminous Bodies
Instructions for using the Lovibond Schofield Tintometer for measuring the colours of Light Signals
The Lovibond Tintometer for testing the colour of Petroleum & Its Products
The Lovibond Tintometer for Quantitative Measurement of Oxidative and Ketone Rancidity in Fats and Oils

A hard-backed catalogue of 112 pages lists their equipment and publications. A Handbook of Colorimetric Chemical Analytical Methods developed for use with Lovibond equipment, an illustrated book of 212 pages, is now in its 4th edition (1st edition, 1953). In seven sections it gives detailed instructions for use in 32 types of chemical analysis, 14 grading tests, 27 clinical tests, 13 toxic gases, and 24 items under "Nessleriser, chemical and grading."

Five booklets were also included:

Colour and the Visual Measurement of Colour, The Story of the Lovibond Colour Scale, by A. J. Fawcett, 52 pp.

Directions for the Assembly and Use of the Lovibond-Schofield Tintometer, 32 pp.

Colorimetry, Part I, Colour and its measurement, with particular reference to The Lovibond Tintometer, 31 pp.

Colorimetry (Supplement No. 1), Procedure to be observed for standardizing conditions when comparing colour readings between instruments and laboratories, 15 pp.

The C.I.E. International Colour System Explained, by G. J. Chamberlin, 34 pp. (1951).

This last named publication is illustrated in color and has a very clever series of drawings that illustrate the transformation of color scales from one triangle to another.

We have been much interested in looking through this material, and are glad to pass on to ISCC readers the above list of Tintometer publications that are available. Prices for these publications and for Lovibond equipment can be obtained on request from Curry & Paxton, Inc., 101 Park Avenue, New York 17, N. Y., agents in the United States for The Tintometer Limited.

ART IN THE ICE AGE

(Continued from News Letter No. 113)

Soon a more fluent line developed and the artists achieved a closer resemblance to nature. To this stage are attributed the "tectoforms," painted or engraved geometric drawings variously interpreted as structures or traps. By varying the pressure on the brush, which succeeded the simpler implements, thick or thin strokes were obtained, thus giving the picture a certain plastic modelling. This effect was aided by discontinuous outlines and then by the use of washes over parts of the bodies, or even over the whole body. The line became thicker and broader. The step from contour drawing to rather flat

painting with simple surface filling has now been achieved. Red was the color preferred in Cantabria and around the Pyrenees, while black soon predominated in the Dordogne region of France. The simple silhouettes due to flat washes were next modelled through the use of light and dark tones. Attempts were often made at red-wash figures outlined in black, but real bi-color painting or polychromy did not take deep hold in the "Aurignacian" periods. This was to come in the Magdalenian period. Aurignacian cave art was essentially linear, stressing firm contours in engraving and painting, even in sculpture, but did pass on to flat surface filling with a tendency toward plastic modelling.

Sculpture rather than painting or engraving was the characteristic art of the Solutrean period, though at first there were only a few engravings marking this culture. The masterpieces of relief sculpture belong to the upper Solutrean and the contemporary early Magdalenian. Most remarkable was a human head, with the hair, beard and features picked out with paint.

In the Magdalenian period, engraving continued alongside of relief sculpture, with excellent line work and modelling, culminating in a very light, fine-line style at the time of the floruit of Magdalenian painting. The Magdalenian series started with simple black-line drawings and black tectiforms. Then came more or less primitive paintings in broad smeary strokes. Soon followed surer linework, producing silhouettes excelling those of the Aurignacian periods. The middle Magdalenian brought the complete filling of the whole body with washes of brown or thin red paint, or a series of dots, or both; also shaded black figures. Black, formerly restricted in use, now becomes the common outline. With the introduction of brown pigment there developed finally the full polychrome style, with animals painted in black, brown, red and yellow, with engraving used for such details as horns, eyes, mane and hooves. The pictures are now beautifully modelled through the use of light and shade and delicate control of pigment color. Late Magdalenian painting comes as anticlimax limned in red in the old contour (linear) style; finally they led to a purely schematic style wholly divorced from nature.

A very interesting aspect of our general subject is the evidence that actual art schools existed at 15,000 or 12,000 B. C.; and to citation of the evidence M & B devote three pages. The evidence is of the following nature. In 1903 there was found a polychrome picture of a bison done in a very individual manner. Twenty three years later, the obvious sketch for that bison, an engraving on limestone, was found 200 miles away. Many other such exercises of "sketch sheets" have been found. At Parpalló in Spain were "vast quantities" of engraved and painted stone slabs, sketch sheets; there were 1430 painted ones alone. An "art school" was also located at Limeuil in France. In spite of the remote antiquity of the cavemen, whom we think of as preceding what we call "civilization," it is not too surprising to learn of the existence of art schools when we note that the typical Cro-Magnon man of that day had a brain 100 cc. larger than the average European of today. The Cro-Magnon professional artist was sensible enough and disciplined enough to rely upon constant practice, not being afraid of thereby cramping his creative style, as is too often the belief today.

That we are dealing with professional artists in the case of the best cave art is clear in the section on the motivation of the Ice-Age art. That this painting was not "art for art's sake" is clear for two reasons. The pictures were usually in the most inaccessible and darkest parts of the caves, although men lived only in the cave openings. Their only light was the flickering light of tallow lamps; and

in the caves lurked dangerous beasts. The pictures were obviously not meant to be looked at and admired, for the artists painted and engraved a picture right over others done earlier. This habit of superimposition not only ruined the esthetic appeal of the earlier work, but of the new as well. Obviously it was the act of painting which counted. It is believed that the art was a magico-religious one, giving expression to predominant social anxieties. It was designed to give the artist's tribal mates power over the game they hunted. It was thus art for food's sake. This is especially clear in the paintings of animals pierced by spears, and in clay images ceremonially pierced. But also a fertility cult or magic spells for procreation are represented by the many pregnant animals and the sexual signs. The art is clearly intended to insure happy hunting and the multiplication of game. Tribal magicians conducted magical ceremonies in the tribal sanctuaries, decorated by professional tribal artists. The better the artists' work the more effective the magic. This was the expression of their way of life. It died when the climate so changed that that way of life ended. But where this hunting life lived on, in the still Arctic north, this style of art lived, as we see in M & B's last section.

Here it may be well to interject a brief word about the people of Europe at the time of the Ice Age art. Professor C. Coon, who recently discovered in caves on the south shores of the Caspian sea very early remains of modern-type man, divides the main early Europeans into three groups. The Cro-Magnon folk were tall and big-boned, with large, long and rugged heads. The "Combe Capelle-Brunn" folk were shorter and had narrow heads and faces, and big eyebrow ridges. These groups were both Caucasoids ("Whites"), as were also a Grimaldi group whose bones showed some "negroid" resemblances. They were buried in a grave in Italy with a sprinkling of red ocher. Probably the artists were a blend of several such groups, already somewhat mixed.

The Spanish Levant art presents striking contrasts with the art of the deep caves. It is found in natural niches and rock shelters throughout the coastal portions of eastern Spain. It evidences certain similarities in style which suggest a possible origin in the Perigordian cave art, a subdivision of the Aurignacian in western Europe. "But while the cave art deals primarily with individual animals, with humans occurring but rarely and almost always in crude form, this art of East Spain consists of human and animal figures, usually very small, combined in very spirited narrative compositions - scenes of the hunt, of combat, of peaceful life" (Weinberg). The bow and arrow, not known in the cave art, is often represented, indicating a late date. One frieze at Minateda is 60 feet long and through its superpositions shows thirteen periods, indicative of a long development. In the hunting scenes, the naturalistic animals are pursued by little men, often very stylized, but in four varied styles. The animals seem to be derived from the cave art; the men, their objects and the pictorial composition from the art of Africa coming by way of Gibraltar. The colors are red, brown, yellow, white, gray and black. The Spanish Levant art is probably of Mesolithic date, that is between 10,000 or 8,000 and 5,000 B. C.

As already suggested, the Arctic art of northern Scandinavia, the Urals and Siberia is more closely allied to the cave art. There are mostly rock engravings, with paintings in the minority and later. Here again animals are featured, only rarely human figures. This art too is an art of hunting and fertility magic. There are some compositions, but they cannot compare with the East Spanish art. The pigments which have not been destroyed by the very adverse weather are of the colors red, violet and brown. The cultures with which the Arctic art has been connected are

of epi- (final) paleolithic and epi-mesolithic type, and date between about 5,000 and 1,500 B. C. The oldest art appears to be farthest north, where it has naturalistic tendencies; as it goes southward, it becomes stylized and of later date.

We cannot close this review of the M & B book without paying tribute to the profusion, the good selection and the excellence of the illustrations. Though the reviewer would differ from the authors in some details, he has only admiration for a difficult job well done.

I.H.G.

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