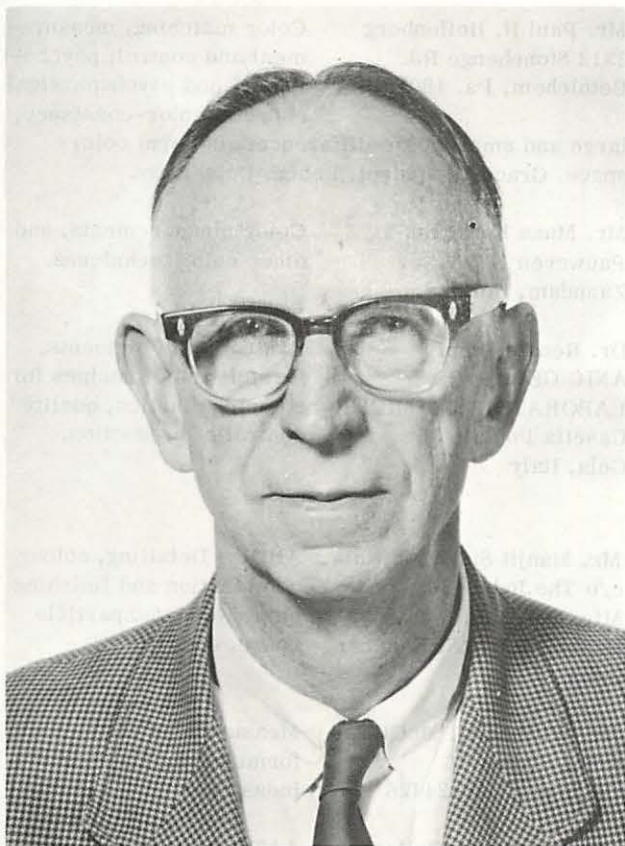


Inter-Society Color Council *Newsletter*

NUMBER 220
September-October 1972

DR. DEANE BREWSTER JUDD



Dr. Deane B. Judd, with the National Bureau of Standards since 1927, died on October 15, 1972, at his home at 3115 Leland Street, Chevy Chase, Maryland. He had been ill since December 1970, but had rallied several times, even to spending the winter months of 1971 and 1972 at St. Croix, his favorite vacation spot.

One of the world's foremost scientists in the field of colorimetry and color vision, Dr. Judd served on committees of many national and international organizations concerned with color. He was a past president of the Optical Society of America (1953-55), president of the Inter-Society Color Council (the only person to serve two terms, 1940-44). From each of these societies he received top awards, the Ives Medal of the Optical Society (1958), the Godlove Award of the

Inter-Society Color Council (1957). In 1950 he was awarded the Exceptional Service Award of the U.S. Department of Commerce; in 1961 the Illuminating Engineering Society awarded him their Gold Medal. As early as 1936 the Society of Motion Picture Engineers had given him their "Journal Award."

Dr. Judd's field of work was broad; it covered research in vision, color-blindness, measurement of color, development of color standards, studies of uniform color spacing. For the International Commission on Illumination he served many years as chairman of its committee on colorimetry (1955-1963); he was a member of the National Academy of Science -- National Research Council's Committee on Vision; since its establishment in 1942, he had been president of the Munsell Color Foundation. His work took him to Europe frequently where he lectured on color in London, Stockholm, Berlin, Madrid, and Lucerne, Switzerland. He was the author of more than 100 research papers on color, the author of the book, *Color in Business, Science, and Industry* (1952), and with Günter Wyszecki (National Research Council, Ottawa) a co-author of the second edition (1963). Dr. Judd remained active, even after his periods of concentration became limited to no more than one or two hours a day. On the Friday before his death he taped a message for the International Color Association that will meet in York, England, in July 1973, where the Newton Medal of the British Colour Group will be awarded to him for his Newton Lecture.

Deane Brewster Judd was born in South Hadley Falls, Massachusetts, November 15, 1900. He attended Ohio State University where he received a B.A. degree in 1922, an M.A. in 1923. He then went to Cornell where he received a Ph.D. degree in physics in 1926. He served as instructor in physics at Ohio State in 1923-24, and as Munsell Research Associate in colorimetry at the National Bureau of Standards the summer of 1926-27. Since 1927 he had been continuously at the National Bureau of Standards, where he helped the Bureau to maintain its world-wide reputation as a leader in the field of colorimetric research. He retired in November 1969, but remained as a guest worker.

He is survived by his wife of 46 years, Elizabeth; a son, Dean Burritt Judd, Cherry Hill, N.J.; a daughter, Mrs. Audrey Vaughan, Altadena, California; a sister, Mrs. Margaret Biehler, Rochester, N.Y.; and four grandchildren.

A memorial service was held at All Souls' Unitarian Church, Washington, D.C., on Saturday, October 21. Remembrances in honor of Dr. Judd may be made to the Cancer Society.

Dorothy Nickerson

HURVICH-JAMESON AWARD

The American Psychological Association presented a joint Distinguished Scientific Contribution Award for 1972 to Professor Leo M. Hurvich and his wife (and research partner) Dorothea Jameson of the University of Pennsylvania Psychology Department. The award carries \$1,000 along with it and the citation reads:

The research team of Dorothea Jameson and Leo Hurvich has significantly advanced our knowledge of color vision through a broadly based program of conceptually sophisticated and rigorously conducted experiments. Their research has provided basic data which are essential to theory and at the same time provide a quantitative framework for physiological investigations. Their very unusual scholarship, technical skill, untiring motivation, and contagious enthusiasm for scientific discovery have set new standards of excellence against which future experimenters and theorists will be judged.

INTER-SOCIETY COLOR COUNCIL

Board of Directors Meeting, September 26, 1972

Approved Applicants for Individual Membership

<u>Applicant</u>	<u>Member-Bodies and Interests</u>
Mr. Robert Babillis Lexan Lane c/o 6E Mt. Vernon, Ind. 47620 personnel in color science while eliminating black magic approach.	Color development and control in lexan polycarbonate. Advancing knowledge of plant
Mrs. Donald Bender P.P.G. Industries Inc. One Gateway Center Pittsburgh, Pa. 15222 ment and technology. Former delegate CMG. Graduate RPI color course.	AIID, CMG, NPVLA -- Psychology of color, product color and design, home furnishings and fashion. Color measurement and technology. Former delegate CMG. Graduate RPI color course.
Ms. Bettina Brendel 36 Gramercy Park E. Apt. 1W New York, N.Y. 10003	Optical effect of color application as used by the artist. Historical survey of color in art, science.

Mr. Joseph V. Canzani
The Columbus College of Art and Design
500 Hutton Pl.
Columbus, Ohio 43215

IDSA -- The teaching of color in art and as an artist.

Mr. Don C. Duke
Swedlow Inc.
12242 Western Ave.
Garden Grove, Cal. 92642

ACeS, SPE -- Measurement and color matching particularly as applied to plastics.

Mrs. Marcella Graham
Catawba, Va. 24071

The identification and application of the ways in which color can contribute to the treatment of psychiatric and geriatric patients who require not only beauty but orientation and sensory stimulation in their confined environment.

Mr. Paul H. Hoffenberg
2312 Stonehenge Rd.
Bethlehem, Pa. 18018

Color matching, measurement and control; psychological and psychophysical aspects; color-constancy, large and small color-differences, uniform color-space. Graduate student, Lehigh University.

Mr. Maas Kotterink
Pauveven 16
Zaandam, Holland

Color measurements, and other color techniques.

Dr. Renato Lippi
ANIC GELA-
LABORATORI CHIMICI
Casella Postale 35
Gela, Italy

Evaluation of pigments, formulation of recipes for coloring plastics, quality control of production.

Mr. Manjit Singh Majithia
c/o The Indian Plywood Mfg. Co., Ltd.
Dandeli P.O. (N. Kanara)
India

AIID -- Detailing, colour combination and finishing on plywood and particle board, etc.

Mr. William A. McClintic
Route 5, Box 76
Covington, Va. 24426

Measurement and formulation, plastics industry.

Mr. John R. McCulloch
Systems Engineering Research
Grace Finishing Plant
Springs Mills, Inc., Lancaster, S.C. 29720

AATCC -- Textile color formulation, tolerance

Mr. James H. McVeigh
69 Stockton La.
Rochester, N.Y. 14625

Color reproduction process and systems (Xerox). Graduate RPI color course.

Mr. Ronald L. Miller
Hughson Chemicals
Saegertown, Pa. 16433

Color measuring instruments, color differences, batch formulation and correction. Graduate of

three RPI color courses.

Mr. Salvador A. Padilla
Parke-Davis & Co.
G.P.O. Box 118
Detroit, Mich. 48232

Color control. Graduate
RPI color course.

Mr. Robert M. Peden
132 Rogers Parkway
Rochester, N.Y. 14617

OSA -- Colorimetry of
fluorescent materials.

Mr. William A. Perkins
Corning Glass Works
Corning, N.Y. 14830

IES, OSA -- Colorimetry
of light sources and light-
ing systems.

Dr. L. Willard Richards
National Research Corp.
70 Memorial Dr.
Cambridge, Mass. 02142

ACeS, FSPT, OSA --
Turbid medium theory,
optics of pigments and
other small particles.
Adjunct Professor, RPI,
color science.

Mr. Gerald H. Snow
313 North Greece Rd.
Hilton, N.Y. 14468

Near white specification.
fluorescence materials,
uniform color difference
specification.

Mr. William F. Waite
229 Wingate Ave.
Huntsville, Ala. 35801

OSA -- Color, color
difference measurements,
color tolerance specifica-
tion, product quality con-
trol. Sperry Rand space support division.

The following information was received from new
member-body delegates. These are not applicants
for individual membership.

Mr. Alfred M. Blumenfeld
272 Glenwood Rd.
Philadelphia, Pa. 19126

IDSA -- Perception, color
measurement, color
matching as it applies to
mass produced goods and
systems.

Mr. LeRoy E. DeMarsh
Research Labs
Eastman Kodak Co.
Rochester, N.Y. 14650

OSA, SMPTE -- How to
produce better color
images. Problems in
color appearance are
currently the most
important topic.

Mr. Donald M. Genaro
Henry Dreyfuss Assoc.
888 Seventh Ave.
New York, N.Y. 10019

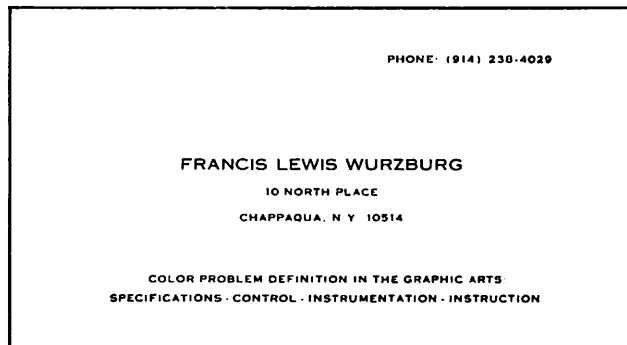
IDSA -- Aesthetics, psy-
chology of technology in
relation to industrial
design use (also architec-
tural and interior),
marketing trends.

WARREN B. REESE

Warren B. Reese of Newburgh, New York,
Treasurer of ISCC, has been promoted from vice
president of Kollmorgen Corporation to senior vice
president, it has been announced by Chairman of the

Board Norman Macbeth and President Richard
Rachals. Currently in charge of the Macbeth Color
and Photometry Group, Reese will have his principal
office at Kollmorgen's corporate headquarters in
Hartford, Connecticut.

EXTRACT OF LETTER TO THE SECRETARY



Although I have retired from Inmont after thirty-eight
years of service, I do intend to remain active. I hope
to become much more involved again in the color field
where most of my professional activities with Inmont
were centered over the years and where I think I can
be most helpful to others, especially in the Graphic
Arts.

Although I am writing many of the friends I have made
in the Council since I first joined in the mid-thirties,
I can't hope to reach all of them directly, much as I
might like to do so.

It is certainly a pleasant prospect for me to return to
the field which has always been my main interest. I
am looking forward with keen anticipation to seeing
much more of my old friends in the future than I have
in the last few years.

F. L. Wurzburg

GATF ISSUES RESEARCH PROGRESS REPORTS

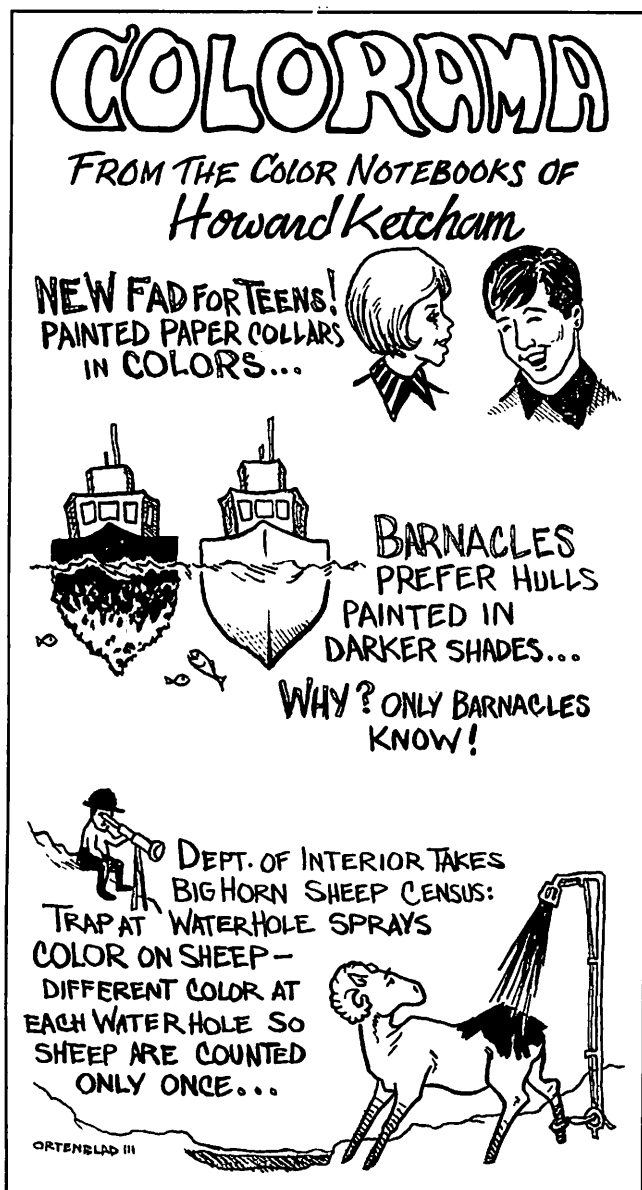
The Graphic Arts Technical Foundation has issued to
its members two Research Progress Reports on the
topics of reflection densitometry and its uses.

The reports, entitled "Graphic Arts Applications of
Reflection Densitometry" and "Using the Reflection
Densitometer for Ink Film Control," were both
authored by Gary G. Field, GATF color technologist.

The first report is intended for circulation to pre-
press, press and quality control supervisors and
technical specialists. It is also intended for research
personnel and densitometer designers and
manufacturers.

The second report is intended for proof press operators, pressmen, quality control personnel and all others using the reflection densitometer to control or monitor printed ink films.

Non-members of GATF may purchase copies of the report at \$2.00 per issue after a one-year waiting period from the issue date (Sept. 1972). For further information concerning the Research Progress Reports, contact the Order Department, Graphic Arts Technical Foundation, 4615 Forbes Ave., Pittsburgh, Pa. 15213.



Reproduced with permission of American Cyanamid Company, Dyes and Textiles Chemical Dept.

CONFERENCE ON PHOTOMETRY AND COLORIMETRY

The National Committee on Illumination to the Scientific and Technical Union of Electrical Engineering and the Bulgarian Academy of Sciences invites you to take part in the Conference on Photometry and Colorimetry which will be held from 27-30 June 1973 in Varna, Bulgaria.

The conference will relate to various scientific and applied problems in the field of photometry and colorimetry. Invited lectures and short communications (15 minutes each) will be presented on the subjects of photometry, colorimetry and their practical applications.

The conference will be held at Hotel International resort Zlatni pyassutsi, at the Black Sea coast near Varna.

The registration fee is 30 leva (about \$15), including a copy of conference proceedings, dinner and excursion along the Black Sea beach.

Official languages are Bulgarian, Russian, German and English.

For further information address:

Scientific and Technical Union of Electrical Engineering
Conference on Photometry and Colorimetry
Rakovski 108
Sofia-C, Bulgaria

SUBCOMMITTEE FOR PROBLEM 18

Colorimetry of Fluorescent Materials

A local meeting has been held in the Rochester area under the assumption that there are sufficient organizations and individuals in the Rochester area to participate actively in problem 18. This has resulted in a number of individuals wanting to become involved in the activities of the two existing task forces and the formation of two new task forces; one on terminology and the other on physical measurement parameters.

It is hoped that the Rochester members, because of their location, can hold more frequent meetings and establish better communications between active members in an effort to better support the overall subcommittee's goals. In the case of the existing task forces there have been coordinators established between the local group and the full problem 18 task force.

A new membership list has been prepared and en-

deavors to maintain only those individuals which have shown interest and are willing to actively support the work of the subcommittee. Also in order to minimize the expenses involved in administrating to problem 18, only one mailing will be sent to any one company or organization with the hope that the recipient will pass on the problem 18 material to the other members in their organization.

In viewing the problem 18 membership list it should be pointed out that not all are ISCC members. However, many of those who are not have indicated their intention to join or have already submitted applications. The others are being prevailed upon to see the advantages and benefits of ISCC membership.

Task Force I

This task force has worked with the visual appraisal of fluorescent whitened samples under controlled viewing conditions. The samples are of paper, cloth and plastic and the evaluation has been completed by four laboratories -- Ciba-Geigy, Kodak, Intracolor and Proctor and Gamble. Each laboratory has also made physical measurements on the samples and comparisons between the instrumental measurements and the visual comparisons have also been analyzed. The task force leader is Dr. Per Stensby and the Rochester coordinator is Bonnie Swenholt. The other members are Bill Findley, Franc Grum, Charles Liebert, Ron Witzel and Ira Seldin.

Task Force II

This group concerns itself with the separation of true reflectance from the spectral radiance factor. This is to be done by analyzing two different methods, one suggested by Dr. Allen, the other by Prof. Simon. A round-robin of several laboratories making the analysis using several types of chromatic samples has been proposed. The group leader is Prof. F. Simon and the Rochester coordinator is Bob Peden. The other task force members are Eugene Allen, Franc Grum, Bill Heaps and Elaine Keller.

Task Force III

A newly established task force involved in the determination and establishment of correct and proper terminology for the area of fluorescent measurement. The task force leader is Milt Pearson, the other members being Franc Grum and Bob Kintz.

Task Force IV

A newly formed task force established to investigate the parameters affecting the measurement of fluorescent materials. It is primarily concerned with the physical parameters affecting the sources and instrument components involved in measurement and the problems encountered in industry when making

measurements of fluorescent materials. The group leader is Bob Peden, with members Dick Lehman, Jim Chisholm and Gerald Snow.

BOOK REVIEWS

Color Metrics, J. J. Vos, L. F. C. Friele, and P. J. Walraven, Editors, AIC/Holland: Soesterberg, 1972, vi + 389. \$27.00

The "Helmholtz Memorial Symposium on Color Metrics" was meant to be a meeting between workers in the field, daily confronted with problems of industrial color tolerances, and psychophysicists, primarily concerned with understanding basic mechanisms. Indeed, 52 participants, coming from all parts of the world, met and clashed as it was the initiators' hope they would do. These proceedings, with their almost verbatim recording of the discussions, may reflect the vivid spirit, which tied together the participants, even after the Symposium was formally closed.

Contents

W. S. Stiles, Line element in colour theory. Historical review. R. M. Boynton and H. G. Wagner, Minimally-distinct border method.

P. W. Trezona, Additive large field colour matching.

N. Kambe, Wavelength discrimination with chromatic flicker.

A. Valberg and T. Holtmark, JND-curves for complementary optimal colours.

J. J. Vos and P. L. Walraven, A zone-fluctuation line element.

S. L. Guth, A new color model.

B. H. Crawford, Brightness units and threshold units.

H. Terstiege, Chromatic adaptation and colour-difference evaluation.

T. Indow and K. Ohsumi, Multidimensional mapping of sixty Munsell colors.

K. Richter, Description of colour attributes and colour differences.

D. B. Judd, Loci of constant hue.

D. L. MacAdam, Role of luminance increments.

G. Wyszecki and G. H. Fielder, New color-matching ellipses.

F. Parra, Continuation of the study of colour thresholds.

I. Nimeroff, Does the CIE $U^*V^*W^*$ have a spectrum locus?

P. Kowaliski, Equivalent luminances and the reproduction of colors.

F. W. Billmeyer, Jr., et al., Visual evaluation of FMC-1 and FMC-2 metrics.

I. G. H. Ishak and S. Roylance, Colour tolerances in the paint industry.

F. Malkin and A. Dinsdale, Colour discrimination studies in ceramic wall-tiles.

W. Schultze, The usefulness of colour-difference formulae.

S. M. Jaeckel, Colour difference formulae for match-acceptability.

E. Coates, et al., Equations for colour tolerances.

K. McLaren, Improving colour difference formulae with multiple regression.

F. T. Simon, Industrial color tolerances by XI-ETZ formulae.

L. F. C. Friele, FMC-metrics: What next?

G. Wyszecki, Recent developments on color-difference evaluations.

Note: See the review article of the meeting by C. J. Bartleson in ISCC Newsletter No. 215, pp. 6-9.

Precision Measurement and Calibration Colorimetry by Isadore Nimeroff, Editor, National Bureau of Standards Special Publication 300, Volume 9, issued June 1972, 460 pages; \$5.50

(Order PREPAID from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402, or local U.S. Department of Commerce Field Offices as SD Catalog No. C13.10:300/v.9; Stock No. 0303-0917; microfiche copy may be ordered PREPAID for 95 cents a copy from the National Technical Information Service (NTIS) Springfield, Va. 22151, as NBS Spec. Publ. 300, vol. 9. NOTE: Foreign remittances must be in U.S. exchange. Add 25 percent of the publication price to cover mailing costs.)

Like the others in the Precision Measurement and Calibration series, the volume on Colorimetry surveys in fairly comprehensive fashion the best

measurement practice in its field, as reflected in publications by NBS authors. These have been selected by the editor and his colleagues at NBS primarily for their usefulness to standards laboratories in the United States in tracing to the NBS standards the accuracies of measurement needed for research, factory production, or field evaluation. By this very fact, however, the compilation should also be useful as a reference source to anyone -- scientist, engineer, student -- whose work entails the acquisition or analysis of quantitative data in the field of colorimetry. Volume 9 contains reprints of 37 papers on Colorimetry and the associated areas of Spectrophotometry and Appearance Valuation, which are grouped into seven Sections: (1) Spectrophotometry, (2) Color Vision, (3) Color Specification, (4) Sources and Instrumentation, (5) Color Spacing and Metamerism, (6) Variabilities and Uncertainties, (7) Appearance and Gloss. Preceding each Section is a short Foreword that points out relations of the papers to each other and to the broader principles of the subject. In addition, the volume contains Author and Subject indexes and a list of publications on Colorimetry and Spectrophotometry by NBS staff members from January 1957 through August 1969.

SCIENCE BROUGHT TO TRIAL

Vasco Ronchi has written another essay -- Vasco Ronchi, Atti Fond. Ronchi 27, 149 (1972) -- on the rationale of science, which I found very interesting and provocative. The article is entitled "Science Brought to Trial."

The discussion is limited to experimental science, which Ronchi considers the most difficult, debatable, and dangerous of human activities. The central issue is the nature and interpretation of observation.

Ronchi's "accusation" is the alleged frivolity, with which experimental science proceeds without bothering to define the functioning of its means of investigation. The common basis of all observation is vision. Although men have other senses that give them information about the external world, sight is the most powerful, precise, rapid, and conclusive sense. Ronchi therefore thinks that science, which gets most of its information by way of sight, should establish, as soon as possible, the way in which the visual apparatus functions and how reliable it can be. Scientists should ask themselves, what does "to see" mean?

Everyone knows that in order to see, eyes are necessary and that it is necessary to have what everyone calls "light." But very few have asked how vision functions, nor have those found an answer, even in the most scientific works.

In a well-regarded textbook, Ronchi found the problem touched and very simply solved: There are many "closed boxes" that all men use, without knowing what

they contain; they accept the results as good; the visual apparatus is a "closed box" and scientists accept what it supplies; for them "what I see is what exists." Without discussion, for them the visual apparatus is a closed box that shows reality, truth. Sometimes, geometrical optics is used to demonstrate that the lens of each eye projects on its retina the image of the real world. Most authors who explain this stop there, as if this solved the problem of vision! No one asks "if images are formed inside our eyes, why do we see things outside us, even far away, rather than images on the retina?" Even physiologists stop after they have studied the retinal response to incident light and nerve transmission to the visual cortex. The relation of these optical and physiological processes to the apparent world, its forms, luminosities, and colors, and localization of them in front of the observer is not considered a subject for study by science.

Ronchi questions the validity of the general use of "closed boxes." It means not taking into account very complicated physico-physiological processes by means of which the observer utilizes radiant stimuli received by his eyes and also information received by his other senses and constructs his apparent world. The apparent world is purely subjective, conditioned by the observer; therefore it is purely hypothetical, without verifiable foundation, to consider it a priori, identical to the real world. That may be a very useful working hypothesis, to facilitate experiments; but to keep it clandestine -- not to acknowledge its hypothetical nature -- to foster the prevalent conviction that there is no need to distinguish the apparent from the real world -- is (Ronchi emphasizes) a culpable alteration of the nature of things and therefore a most unscientific procedure.

The apparent world is not the real world; the real world is objective and only one; it is what it is -- unknown and possibly unknowable. The apparent world is subjective and different for one observer than for any other. The experimental problem therefore assumes a disturbing aspect: only the apparent world is available to the observer -- even with the most sophisticated apparatus; the experimental undertakes to study the real world; thus the fundamental problem is how perception of the apparent world can yield knowledge of the real world.

Ronchi asserts that experimental science forbids facing this fundamental problem and that therefore it deserves to be brought to trial as frivolous. He points out that scientists avoid discussion of the matter, dismiss it as philosophic speculation and remain firm in their conviction of "seeing the truth." He asks, "what kind of science is this that doesn't want to know thoroughly its means of investigation? How has it been possible to reach such a point and to go on like this?"

I have not space to indicate Ronchi's examples of

anomalies that show that seeing is not believing. Ronchi indicates that the development of modern science has been based on Galileo's assertion: I believe what I see through the telescope. Galileo knew and firmly declared that no scientific demonstration was sufficient to prove the reality of the distant things seen through his telescopes, or of his interpretation of the satellites of Jupiter or the mountains on the moon. Galileo never accepted battle on the scientific field, because he knew nothing of optics. His opponents, teachers of medieval optics taught that no one should believe what he saw through the telescope. Galileo solemnly and tenaciously asserted his faith in observation by use of his telescopes, and with the aid of the Grand Duke of Tuscany undertook a campaign of propaganda, as is done to put a faith into circulation. Galileo never responded scientifically or technically to his critics. One year later, 1610, the first important conversion to the new galilean faith occurred; Kepler's. Kepler was generally considered by his contemporaries as the greatest authority on optics of the era. His conversion meant that Galileo was victorious. But it was a victory of faith, not a proof that the real world is the seen world! That faith is the cornerstone of modern science. It was established by propaganda; it has never been established in any other way; Ronchi thinks it is high time it should be, if that is possible, or we should know why it is not possible.

David L. MacAdam

Reprinted with permission from J. Opt. Soc. Amer. 1972, 62, 1244.

BIOLOGICAL EFFECTS FOR COLOR?

The following communication has been received from Faber Birren.

Three articles of mine on the visual, physiological and psychological effects of color have appeared in the August, September and October 1972 issues of the Journal of the American Institute of Architects. These run to 16 pages, over 10,000 words and include a fairly complete bibliography of reference material. A reprint will be sent to anyone who cares to write me.

In the July-August 1972 ISCC Newsletter are reviews and comments regarding The Lüscher Color Test. In a critical essay by Angela Little exceptions are taken to statements regarding physiological effects for color. Skepticism is expressed as to reactions of the autonomic nervous system, of pulse rate, blood pressure, respiration. She writes, "That is all, no documentation of the experiments, no quantitative data, just the statements. Once again I am left with the nagging questions; where? when? by whom? where documented? In any case, not in Lüscher's book."

The woods are full of references as to the biological

and psychological effects of color. They will be found in my books and articles and in the works of many others, if not in Lüscher. In my own experience I have noted a negative attitude by many in the scientific field who prefer to deny effects for color and will turn closed eyes and deaf ears to all reason. This is unfortunate, for a lot of sound and authoritative data are frequently prejudiced and disapproved.

There may be no emotional effects for those who don't want them. But to deny biological effects is futile. For example, the recent use of visible blue light to treat jaundice in newborn infants is clear evidence of direct color therapy. Also, researchers for the U.S. Atomic Energy Commission have demonstrated different physiological reactions in animals exposed to different colored environments. Such studies, incidentally, emphasize the importance of color in space vehicles and confined habitats.

There is a newly formed American Society for Photobiology. Both the Illuminating Engineering Society and the Inter-Society Color Council have formed committees to study effects for color. Angela Little facetiously ends her remarks with the question, "Charades anyone?"

I am sorry, but if games are to be played, let us hope it will not be blind man's buff.

Faber Birren
184 Bedford Street
Stamford, Conn. 06901

PRODUCTS AND SERVICES

Howmet Introduces Coated Coil

Howmet Corporation's Mill Products Division in Lancaster, Pennsylvania has announced the introduction of "HOWMARK 60", a coated coil produced on a new coating machine installed in the Lancaster facility. The mill is accepting orders for delivery in November or December of this year in any of some twenty representative standard colors, according to Jean Pierre Altorffer, vice president, Aluminum Group.

"HOWMARK 60" is produced on a new 60 inch wide paint line using aluminum coil ranging from .008 to .080 gauge in thickness. "HOWMARK 60" is available in alkyd, acrylic, vinyl, polyester, plastisol and fluorocarbon finishes, oven baked in stages. The first colors to be offered are Polar White, Mocca, Tan, Harvest Gold, Colonial White, Seal Blue, Silver Gray, Metallic Gold, Pastel Yellow, Navajo Turquoise, Metallic Blue, Metallic Rust, Pastel Green, Ivy Green, Metallic Green, Silver Blue, Autumn Red, Terracotta, Classic Avocado, Limestone Green and Raven Black.

Current Awareness Service

World Meetings Information Center announces a new current awareness service based upon the programs of scientific and technical meetings. The service, to be called Current Programs, will be essentially a "contents" type of publication. However, being based upon meeting programs, it will give the scientific community an average of more than a year's advantage over publications based on the journals.

Studies by the Center for Research in Scientific Communications at the Johns Hopkins University have shown that almost half of the papers published in selected core journals are made public at meetings as much as thirty-six months earlier. Equally important, almost one-third of the papers presented at meetings never see journal publication. As a result, much valuable information has, in the past, been lost. The need for the new current awareness service is clearly implicit in the results of these studies.

Literature describing Current Programs and giving full information on pricing are available from World Meetings Information Center, 824 Boylston Street, Chestnut Hill, Massachusetts 02167.

Comprehensive Color and Photometry Unit Established by Kollmorgen Corporation

Kollmorgen Corporation, of Hartford, Connecticut, has announced that as of September 1 the products and services of what had been four separate Kollmorgen divisions will now be produced and serviced from a single source, headquartered in Newburgh, New York.

The new Kollmorgen entity, called Macbeth Color and Photometry Division, will serve manufacturers affected by color formulation, measurement or control.

The former Macbeth Division produces Quantalog transmission and reflection densitometers, for both color and black-and-white applications; sensitometers; color analyzers and translators; transparency viewers, viewing booths and luminaires, and color-vision-testing devices.

Munsell Color Division, markets Munsell color standards, color order systems and color test systems. These include Munsell-CIE diagrams and CIE-UCS chromaticity diagrams; Munsell color disks and disk colorimeters; the Farnsworth-Munsell hue test; the Burnham-Clark-Munsell color memory tests, and others.

Color Systems Division produces colorimeters, radiometers, spectrophotometers, and computer equipment and software for color formulation and color correction in the textile, paint, plastics, and related industries.

Macbeth Research Laboratories is a research organization for color perception, color formulation and color measurement. Its areas of research also include optics, mathematics and physics; graphic arts, film and image technology; illuminating engineering and light sources; and computer technology and software.

Kollmorgen Announces Color Courses for 1973

The practical training course, "Color and the Behavior of Colorants," will be presented several times during the year 1973, in Newburgh, New York, and in Charlotte, North Carolina. Courses are scheduled for the weeks of January 22, June 11, September 17, 1973, at the Macbeth Color & Photometry Division plant in Newburgh, New York, and for the weeks of February 19, May 21, November 12, at the Kollmorgen Technical Center in Charlotte, North Carolina.

This one-week course includes basic information on color theory, color measurement, and colorant formulation, but emphasis is placed on reducing the theory to practice in industrial operations.

For further information on courses to be held in Newburgh, New York, contact Miss Ruth M. Johnston, Director of Applications Services, Macbeth Color & Photometry Division, Kollmorgen Corporation, P.O. Box 950, Newburgh, New York 12250. Telephone: 914 -- 561-7300. For further information on courses to be given in Charlotte, North Carolina, contact Dr. James G. Davidson, Manager, Kollmorgen Technical Center, Dixie River Road, Charlotte, North Carolina 28210. Telephone: 704 -- 394-3131.

READER DESIGN DECISION

The journal, Lighting Design and Application, has initiated a new column called Reader Design Decision. The first column concerns color and light sources, and was prepared by Dr. William Thornton of Westinghouse and James Finn of Detroit Edison. Following a tutorial commentary on color and light sources, an actual lighting design problem was presented. Solutions to the problem may be submitted by designers for possible publication in LD&A.

EXTRACT FROM LETTER TO SECRETARY

. . . the main (NBS) centroid relaxant color. . . is 183d Blue. . . This color used with a stimulating tone like 27 deep Y pink. . . has an amazing effect on the unrelaxed tense child, if used of course correctly. . . I am a psychologist, and have worked for many years to prove the use of colors in therapy, especially to

relax the nervous system of children and adults. . . . It will be years before color therapy will be accepted here in Australia. . . . It is successful in cases of spastic children such as I work with. . . . It can be applied and affect the visual association area of the brain. . . .

Mrs. Wendy Coker
3 Arundel Crescent
Surrey Hills
Melbourne, Victoria
Australia

Ed. Note: The editor will welcome verification of this kind of color effect. References to published material would be most appropriate.

INSERTS

Enclosed with this issue is a supplement to the 1971 ISCC membership list. The next completely revised list is planned for 1974.

Also enclosed is Subcommittee 21 report "Standard Practices for Visual Examination of Small Color Differences" by Sam J. Huey, Chairman.

COMMITTEE ON PUBLICATIONS

Robert W. Burnham, Chairman
Milton J. Pearson
Ruth M. Johnston
Donald Genaro
William Benson
Robert T. Kintz

Send Newsletter Items to Editor:

Dr. Robert W. Burnham
Eastman Kodak Company
Research Laboratories, Bldg. 81
Rochester, N.Y. 14650

Other Correspondence to Secretary:

Dr. Fred W. Billmeyer, Jr.
Department of Chemistry
Rensselaer Polytechnic Institute
Troy, N.Y. 12181

Treasurer:

Mr. Warren B. Reese
Macbeth Corporation
P.O. Box 950
Newburgh, N.Y. 12550

NOTE:

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.