Inter-Society Color Council *News*

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SUPPORT YOUR JOURNAL!

For many years those of us who were attempting to deal with color as a science and as a technology moped about and bitterly complained about the multiple sources we had to consult in the literature in order to obtain a reasonable knowledge of current developments. In 1975 this all changed.

The Inter-Society Color Council and John Wiley and Sons concluded in an agreement whereby *Color Research and Application* became *THE* journal endorsed by the Inter-Society Color Council. This was an absolutely marvelous event, and one that is now appreciated worldwide. Each new member of ISCC is urged to subscribe to the journal in order to be in touch with his (or her) peers. The variety of articles in this outstanding publication is easily appreciated with every issue by simply scanning the Table of Contents.

However, not all of ISCC members have, in fact, subscribed to the journal. In addition, there are others working in the general field of color science who would benefit from a subscription. If you are not now a subscriber, please give serious consideration to becoming one. Borrow a copy from a friend, or consult your library. But don't let your interest stop there. In order to continue as an economic reality, your journal needs individual and library subscribers and contributors of manuscripts for publication.

In addition to the technical and general articles published in each issue, letters to the editor are encourgaged in matters concerning the subjects normally covered by the journal. If you like articles that are published, let the editors know, and if you don't, let them know too, but make suggestions for improvements.

Without *Color Research and Application* as its journal, the Inter-Society Color Council would be less of an organization and its members would receive considerably fewer benefits and communications.

The price of subscription currently is $25.00 for personal subscriptions of ISCC members, and you may write to John Wiley and Sons, 605 Third Avenue, New York, New York 10158 to subscribe. Let them hear from YOU.

1983 Deane B. Judd-AIC Award to David MacAdam

The Deane B. Judd-AIC Award was instituted in 1975 in honour of the memory of the outstanding colour scientist Deane B. Judd. It is awarded biennially by the *Association Internationale de la Couleur (AIC)* to recognize and honour persons who have performed work of outstanding merit in colour science. Previous recipients have been Miss Dorothy Nickerson, Professor William David Wright, Dr. Gunter Wyszecki, and Professor Doctor Manfred Richter.

The 1983 Deane B. Judd-AIC Award will be conferred on David Lewis MacAdam in recognition of his extensive contributions to the science and technology of colour. In particular, Dr. MacAdam's work on spectrophotometry, spectroradiometry, optimal colours, dominant wavelength and excitation purity, uniform chromaticity diagrams and uniform colour solids for reflecting objects, perceptible differences in chromaticity and in tristimulus values leading to the well-known MacAdam ellipses and ellipsoids, chromatic adaptation, colour computations including some of the first use of computers, loci of constant hue and brightness, and colorimetric fundamentals of colour reproduction especially in colour photography, are among the contributions noted here for recognition by the *Association Internationale de la Couleur.* His professional career has extended over fifty years: he was a physicist in the Kodak Research Laboratories at Rochester from 1936 until 1975, finishing as a Senior Research Associate; he was editor of the Journal of the Optical Society of America from 1964 to 1975; he is now a professor at the Institute of Optics at the University of Rochester, and still resides in that city (at 68 Hammond Street, Rochester, New York, 14615, USA). In addition to his many papers describing original research, he has written or edited four books on colour and allied topics. His contributions to colour standardization through national and international organizations, and his contributions to colour education, particularly in the fields of the history and the technical applications of the subject, have earned him the admiration and gratitude of colleagues and associates throughout the international colour community. The Executive Committee of the *Association Internationale de la Couleur* is therefore pleased to honour Dr. David Lewis MacAdam with the 1983 Deane B. Judd-AIC Award.

The award consists of a gold medal with a portrait of Deane Judd on one side, and on the other side the inscription "To honour David MacAdam 1983 for important work in colour science." The AIC plan to present the award to Dr. MacAdam at its Midterm meeting to be held at Gothenburg, Sweden, from 25 to 29 August 1983.

DIRECTORS ANNOUNCED

Mr. Ralph Besnoy, Mrs. Anna Campbell Bliss, and Mr. Daan Zwick are joining the Board of Directors for a three-year term of office. Mrs. Joy Turner Luke, Mr. Ralph Stanziola, and Dr. William A. Thornton retire from the Board.

Ralph Besnoy

Mr. Besnoy has been active in project committee work in the Council for some time. He is Co-Chairman of Project Committee #27, "Indices of Metamerism." He is also an active member of the Color Measurement Committee (RA 36) of the American Association of Textile Chemists and Colorists, as well as a chairholder in the Color Marketing Group.

Mr. Besnoy is Section Leader of the Customer Service Section of the Dyes Application Research Laboratory at 101 Americas in Charlotte, North Carolina. He graduated from CCNY with a B.S. degree in Chemistry.

Anna Campbell Bliss

Artist architect Anna Campbell Bliss is a consultant on color and design and partner in Bliss and Campbell, Architects, Salt Lake City.

Early studies in science and art at Wellesley College were followed by architecture at Harvard University's Graduate School of Design, where she received a Master of Architecture. Studies in color and light with Gyorgy Kepes at M.I.T. and later Josef Albers provided a base for continuing exploration. Her art and research are devoted to the visual aspects of color. Experience in hospital design, interiors, museum display and teaching have helped her to identify the many contexts in which we see color and the variables that modify our vision.

Mrs. Bliss has lectured at universities from coast to coast, from Yale to U.C.L.A. She gives frequent seminars for national and regional meetings of ASID, CMG, AIA and ISCC's 50th anniversary meeting, as well as for weavers, museum docents and other groups. She is the recipient of national and international awards for architecture and interiors. Her prints and paintings are included in the collections of the Metropolitan Museum, the Art Institute of Chicago and many public, corporate and private collections.

Mrs. Bliss serves as chairman of the ASID delegation to ISCC and was honored by a presidential citation at their national meeting. She is currently a member of the Design Board of Salt Lake City and the Advisory Board of the Utah Museum of Fine Arts Associates. She has served as a juror for the National Endowment for the Arts and the Utah Arts Council and has been guest editor of the DESIGN QUARTERLY. Her articles on color have appeared in the AIA JOURNAL and other publications.

Daan M. Zwick

Daan Zwick is a senior research associate in the Color Photography Division of the Kodak Research Laboratories. He graduated from the University of Vermont, in chemistry, in 1943, and taught physics there before coming to Kodak in 1944. He has done research and development work on many types of color films and processes, on the interface between film and television, and on color image science in general.

In 1972 he received the Herbert Kalmus Gold Medal Award from the Society of Motion Picture and Television Engineers for his research on color motion picture films. In 1976 he received that Society's Agfa Gevaert Gold Medal for his work in the television-film interface, and in 1981 he was awarded the Progress Medal of SMPTE for work on improving the image structure of color films.

DELEGATION CHAIRMAN

CALL FOR SUGGESTED NOMINEES

At least several of you attended the 1983 ISCC Annual Meeting in Louisville and heard the results of last year's elections to the ISCC Board of Directors. This year additional opportunities for service in the ISCC are available with elections of three new members to the Board of Directors plus the election of a new president-elect. Your suggestions as to possible candidates will be particularly appreciated by the Nominating Committee whose responsibility for identifying and locating qualified members is spelled out by the ISCC By-Laws.

Please review your delegation and consult your member delegates as to their interest and willingness to work with the ISCC officers and board. All positive responses should be communicated as soon as possible to one or more members of the Nominating Committee, Mr. Franc Grum, Prof. Fred Billmeyer, Jr., Dr. Allen Rodriguez, Dr. Stephen Bergen, or the chairman, Dr. William Schaeffer. They will be sure to reconfirm a possible candidate's interest before initiating any other steps.

The Nominating Committee must have its report ready for the Board of Directors at its October, 1983 meeting. Your prompt recommendations will help to achieve a representative and balanced slate of candidates for consideration by the voting delegates.

NEWS OF MEMBERS

Edward Connor, a long-time ISCC member and Treasurer of the Council since 1980, is President of the Gardner/Neotec Instrument Division of Pacific Scientific. He was confronted with a difficult schedule at the time of the ISCC Annual Meeting in Louisville, April 10-12, because on these same days the Division was holding a Seminar for Sales Representatives from all over the U.S. and many foreign countries. Because of this conflict he was able to be in Louisville only until Monday afternoon.

It was a pleasure to see our Treasurer Emeritus and Honorary Member, *Leonard Davidson,* retired from NL Industries, at the Louisville Meeting and working at the Registration Desk with Treasurer Connor and our newly elected Secretary, Therese Commerford, of U.S. Army Natick Laboratories.

Harry Hammond, a long-time ISCC member, is Chairman of the Subcommittee on Colorimetry and Spectrophotometry of the Appearance Committee. He is also a contributing member of the ISCC Committee on Publications.

Justin Rennilson left EG&G Gamma Scientific and formed Retro-Tech in La Mesa, California, to provide measurements and consulting services in the field of Retroreflective Material Evaluation.

Mark Morse retired from the DuPont Marshall Laboratory last year and formed Morse Associates, Springfield, Pennsylvania, to serve as consultants in the field of coatings evaluation. He is still active in the Optical and Physical Properties subcommittees of the ASTM Paint Committee and continues as a member of the ten-man delegation from ASTM to ISCC.

Stephen Bergen Appointed Chief of Dental Service

ISCC officers and members who know Dr. Stephen F. Bergen and his abilities were pleased to learn in April that he has been appointed Chief of Dental Service at Manhattan Veterans Administration Medical Service. He will continue in his former position of Director of Prosthodontics and Maxillofacial Prosthetics. This service is the only one in the Veterans Administration that has residency training programs in all the adult clinical specialties, namely Periodontics, Endodontics, Oral Surgery, Prosthodontics, Maxillofacial Prosthetics and General Practice. The Service employs 60 health professsionals, including 28 dentists. It provides specialty dental care of high quality to as many as 2500 eligible veterans each month.

Dr. Bergen is a Diplomate of the American Board of Prosthodontics. He is also a member of 15 other professional organizations and holds offices in 5 of them. In ISCC he has served as a Director from 1978 to 1981, currently chairs Subcommittee 35, Color of Living Tissues, and co-chairs Subcommittee 40, Color Education Resources and Materials. He also serves as Coordinator for ISCC's 3 Honorary Awards, namely Godlove, Macbeth, and Service. Dr. Bergen is the author of many articles on his Maxillofacial Specialty. In addition he has written on Lighting for the Dental Office and, with Dr. Jack Preston, is co-author of the textbook "Color Science and Dental Art" published by C. V. Mosby, St. Louis, 1981. We congratulate Dr. Bergen on his appointment and the Veterans Administration on their selection of a man of exceptional dedication and ability.

Alvin O. Ramsley Honored

Mr. Alvin O. Ramsley, a supervisory research chemist at the US Army Natick Research and Development Laboratories, Natick, Massachusetts, was recently presented the Department of the Army's highest honor for R&D excellence, the Army Research and Development Achievement Award, in ceremonies conducted at the military facility.

In presenting the prestigious award to Ramsley, Dr. Marvin E. Lasser, director of Army research from the Department of the Army in Washington, noted that approximately "twenty such awards are given annually to individuals involved in Army research and development efforts."

Although 15,000 researchers are in competition for this coveted award, the selection of Ramsley was not a difficult one because of the outstanding contributions he has made to provide the American combat soldier with increased camouflage protection, said Lasser.

Ramsley's efforts, ingenuity, technical ability, resourcefulness, and dedication in the development of the broad band Woodland pattern camouflage system for battledress clothing contributed to this major advance in surveillance protection for the soldier, continued Lasser.

Currently viewed as the best in the world by military and civilian experts, the new system designed by Ramsley affords improved protection over the full range of human vision. Incorporated into the new battledress uniforms are certain infrared reflectance properties which, for the first time, will protect the soldier from night detection by starlight scopes, advanced image intensification devices, and a variety of photographic techniques.

For more than a decade, Ramsley intensely researched and methodically developed the foundation for the battledress system which is now the standard issue work/combat uniform of the Army replacing the olive green fatigue.

An immense task, the camouflage project required Ramsley to become familiar with the intricacies of a number of diverse scientific disciplines which were essential to the major technological advances achieved in broad band Woodland camouflage pattern clothing.

Prior to his employment with the federal government, Ramsley earned a Bachelor of Science degree in chemistry from Houghton College and a Master of Science degree, also in chemistry, from Columbia University. Entering into civilian service with the Department of the Army in 1950, he served for three years as an analytical chemist with the Quartermaster Depot in Philadelphia prior to coming to the Natick installation in 1953. At Natick, Ramsley has served as a research chemist, and is presently a supervisory research chemist in the Countersurveillance Section, Textile Research and Engineering Division of Natick's Individual Protection Laboratory.

His previous awards include the NLABS Research Director's Award in 1956, the Best Paper Award from the American Dyestuff Reporter in 1961, a Prize Winning Paper from the US Army Science Conference in 1970, and the NLABS Technical Director's Gold Pin Award in 1982.

In addition to holding two patents, Ramsley is the author of six journal articles and 47 technical reports. He is a member of the American Chemical Society, the Optical Society of America, the Inter-Society Color Council, Sigma Xi, and the American Association of Textile Chemists and Colorists.

Ramsley and his wife, Florence, reside at Farm Road in Sherborn.

Joseph von Tury

The Smithsonian Institution in Washington, D.C. has selected five pieces from the work of F. Joseph von Tury of Metuchen,

N.J. The pieces are part of the permanent collection shown in the Hall of Ceramics, National Museum of American History. The group represents the versatility in design, color and texture of von Tury's ceramics, and illustrates the wide range of his work.

One of the works, a 25 inch bowl with decoration representing the "spiral of life," has been exhibited in the Syracuse Ceramic National, the Metropolitan Museum of Art, and recently was a part of the "Art for Use" exhibit commissioned by the National Fine Arts Committee for the Olympic Winter Games in Lake Placid.

Von Tury's work is represented in the newly established Purdy Museum of Ceramics at the American Ceramic Society Headquarters in Columbus. The Purdy collection includes significant ceramic objects representing achievement in technical and artistic ceramics.

Von Tury is presently working on reconstruction projects for historical buildings, including replacements of architectural ceramics for the Baltimore Pennsylvania Railroad Station. He is listed in the new *Sourcebook of Architectural Ornament.*

Von Tury is a Fellow and an Honorary Life Member of the American Ceramic Society. He is chairman of the American Ceramic Society Delegation to the ISCC.

APPLICATION FOR INDIVIDUAL MEMBERSHIP

Approved at Board of Directors Meeting April 9, 1983

Mrs. Adriana Bitter
Salamandre
37-24 24th Street
Long Island City,
New York 11101

Works in manufacturing, styling, buying. Color problems are related to dyestuffs for yarns, piece dye cloth, and printed surfaces. Is interested in learning how to solve problems in production. Is interested in antique textiles.

Mr. Barry P. Brady
Collins & Aikman Corporation
Manufacturing Service Center
5736 N. Tryon Street
P.O. Box 32665
Charlotte, North Carolina 28232

Research Chemist in charge of Computer Color Measurement within Corporation. Shift dyer, Laboratory Supervisor for dyeing plant, Interested in color assessment, Computerized color predictions and corrections, transmission measurement of dyes for strength and/or shade differences.

Mr. Donald A. Brownell
735 Dennis Avenue
Chula Vista,
California 92010

Is involved in metal finishing and painting, color grading of rubies, emeralds, sapphires and others with photographic records. Is interested in obtaining true color photographic reproductions of colored gemstones.

Dr. Arthur H. Brownlow
Dept. of Geology
Boston University
Boston, Massachusetts 02215

Involved in the designation, assessment, and measurement of color in gemstones. Has an interest in the scientific study of the causes of color in gemstones.

Mr. Steven T. Burns
2304 Judith Court
Midland, Michigan 48640

My color problems are failure to maintain good control on photographic color reproduction, customer education, explaining the viewing standards for color, and how most efficiently order color corrections, to customers.

Mr. George E. DeWolfe
3535 Merriment Way
Colorado Springs,
Colorado 80917

Works in photography, framing, and figure painting (museum miniatures), and dioramas. Is interested in color solids and wheels, Munsell System applications to painting and historical research.

Dr. Louis L. Harris
3829 W. Greenleaf
Lincolnwood, Illinois 60645

Has worked as a research assistant N.I.C.O. (color perception of the visually impaired). Also, worked on the importance of color perception in normal visual function. His interests are color evaluation and grade determination of gem minerals.

Dr. James V. Jolliff
Gemcraft of Annapolis
191 Cardamon Drive
Edgewater, Maryland 21037

Has been involved in color problems related to navigation light issues in U.S. Navy ships and in the use of color in gemstones appraisals. His interests relate to the methodologies to be used in assessing the color in colored gemstones. Is concerned over the proliferation of systems being introduced into the marketplace and their impact on the gemology and jewelry appraisal business.

Ms. Lisa Lackey
Howard Brandston Lighting Inc.
141 West 24th Street
New York, New York 10011

Her work is involved with lighting; its various uses/applications in architecture, the fine arts.

LETTERS TO THE EDITOR

"Dear Editor:

"My recent letter concerning the heist by Billmeyer and Saltzman of the grass green *'Peanuts'* strip was, as you well know, a collusion between the two of us to inaugurate a back page on the *Newsletter* of color humor. One possible title might be "The Colour FULL Funnies." You will find enclosed several cartoons I have gathered over the years and for which the original publishers have given us permission to use in the ISCC *Newsletter.*

"We would also like to offer an open invitation to all ISCC members to submit material, either original or copywrited, for possible inclusion in the *Newsletter* humor section. For material that is copywrited, the person submitting it should indicate where we might write to get permission to reproduce the material from the rightful copywrite owner.

"To each ISCC member, we say 'let's see your colour-FULL item in the next *Newsletter.*'"

Louis A. Graham
President

Dear Ms. Zuyus:

As the New Yorker would say: "Department of Amplification."

Mr. Graham's article about his "Peanuts" cartoon is even more interesting to me, and perhaps to him, when one realizes that the 1965 strip's reference to 36° N latitude as being the ideal place to observe "grass green" is very close to the latitude of Greensboro, NC, where we both live. (How's that for a long-winded sentence?)

On another matter, I have been asked to establish a column for the Color Education Committee (#40), and am thinking of doing the same for Artists' Materials (37). Are there protocols for such ventures, or do I just send items of interest to you willy-nilly?

Mark David Gottsegen
Co-Chairman, ISCC 37

Reply:

I am delighted to hear that two project committees are interested in establishing regular columns. Deadlines for submission of items may be found on the back cover of the Newsletter. I suggest that we consider a column every other issue.

If any other members are interested in a regular column, please don't be bashful. Write or call me posthaste.

MEETINGS AND ANNOUNCEMENTS

Color Control in Textiles

An AATCC/ISCC symposium on "Practical Applications of Color Control" was held March 8-9, 1983, at the Holiday Inn Four Seasons, Greensboro, North Carolina. Roland Connelly, Jr., of Burlington Industries, our Chairman of the AATCC Delegation to ISCC, was the Symposium Chairman. Fifteen papers were presented – some better than others but all very interesting. I will not list all of the papers, because interested people should have received the announcement of the meeting. In my view, the two outstanding papers were "Instrumental Requirements for Color Control" by Robert Willis of Burlington Industries, and "Color Control in Military Procurement" by Therese Commerford of the U.S. Army Natick Laboratories.

Willis began by defining instrument color control as "The means by which materials in a process are sampled, instrumentally measured for color, and the process modified such that the final products lie within a desired color specification." He then addressed the problem of the development of color specifications. He indicated that three steps are involved:

1. Evolution of the process,
2. Development of specific verbal statements of what is to be accomplished, and
3. Conversion of statements into numerical tolerance limits.

He carefully distinguished between requirements for "off-line samples" in the shaderoom, "on-line monitoring" of the dye range, and "in-line measurement" at the inspection table. Four categories of specifications were defined:

1. Physical/environmental.
2. Performance/operating.
3. Information.
4. Color requirements.

These were examined in detail.

Harry Hammond III

RPI Program in Color Science and Technology to Move to RIT

Dr. Fred W. Billmeyer, Jr., Professor of Analytical Chemistry at Rensselaer Polytechnic Institute and Director of The Rensselaer Color Measurement Laboratory, has announced that upon his retirement from the RPI faculty in 1984, Rensselaer's program in color science and technology will move to the Rochester Institute of Technology, where it will be a part of the School of Photographic Arts and Sciences. From its inception the program, designated The Rensselaer Color Measurement Laboratory, took a broad, interdisciplinary view of both color science and color measurement. At the time of its founding, the program was the only one in the United States devoted solely to color as a science and technology, in contrast to programs considering color only as it relates to a specific industry, such as textiles or photography, and in which color is only a small part of the whole. Although a few other programs of both types were later founded in this country, Rensselaer's has remained the largest. Similar programs exist in a small number in Europe, but those devoted purely to color science appear to be declining. One eminent authority has, in fact, characterized The Rensselaer Color Measurement Laboratory as the most prestigious in the world.

The objectives of this program have been three in number. The first of these has been *fundamental research in color science.* In the past, such research was carried out either in large industrial laboratories, a notable example being the studies of MacAdam and Evans at Kodak, or in government standardizing laboratories or those associated with nonprofit organizations, such as the National Bureau of Standards or (at the time) the Munsell Color Company. Support for these programs has dwindled as industry has become more competitive and as the pressures on government laboratories have taken other directions. Except for minor resurgences in some areas, there is very little work of this type being done at present. If the demands of color technology are not to drain the reservoir of underlying science, it is essential that basic research continue. At Rensselaer, the success of this objective is attested to by over 125 publications designated Contributions from The Rensselaer Color Measurement Laboratory.

The second objective of The Rensselaer Color Measurement Laboratory has been *graduate education in color science and technology.* It is estimated that the application of industrial color technology in the United States requires the employment of 10,000 to 20,000 workers. Most of these employees require little formal training in color, and Rensselaer's program of continuing education has served this need. The Rensselaer Color Measurement Laboratory has seen the education of tomorrow's leaders in color science as a more important objective, however, and it is here that its efforts have been concentrated.

For lack of programs devoted to a comprehensive education at the postgraduate level in the basic science of color, the alternative of self-education on the job has had to suffice for the present generation of industrial colorists in this country. The unevenness and inefficiency of this process, and its inevitable bias towards mastery of just enough technology to solve the immediate problem, are among its obvious disadvantages. Rensselaer's program has overcome these deficiencies by training over 20 Ph.D. and M.Sc. color scientists in a broad, interdisciplinary approach which provides employees ready to attack the problems of the application of color science in any of the wide variety of fields.

The final objective of this program has provided an essential ingredient for the success of the first two, *liaison with industry*. The program has recognized that the vast majority of its students in color science and technology will seek employment in industry. Close liaison with this industry has not only made an important contribution to the education of these students, but has also provided for the transfer of information in both directions, so that the research projects of the program both take direction from the needs of industry and supply direction towards the fulfillment of these needs. The well-known RPI summer continuing-education courses in color technology, moving to RIT in June 1983, are an outgrowth of this objective of Rensselaer's program.

Billmeyer comments that the enthusiastic interest of the staff of the School of Photographic Arts and Sciences at RIT makes it an ideal place to relocate his color science and technology program. "With the presence of the Richard S. Hunter Professor of Color and Appearance Science and a junior staff member as well as my own part-time contributions in providing continuity and a transfer of technology, we will be able to expand my present program into new areas in addition to those in which my students and I have been successful in the past. I look forward to even greater achievements for the program in its new location."

Billmeyer has announced that he will maintain his personal residence in Schenectady, New York, and retain a few of his current activities, including the editorship of Color Research and Application, while assisting in the establishment and growth of the color science program under the direction of young staff members at RIT.

Company News

Computer Color Systems (CCS), a Belgium Company with outstanding capability in automated color matching, has been acquired by Pacific Scientific Company. CCS has been merged with the Gardner/Neotec Instrument Division at Silver Spring. Pacific Scientific is utilizing the technology of CCS to produce a new color matching system coupled with their recently developed Spectrogard Spectrophotometer/Colorimeter, now widely used in color research and sophisticated color control. Alan Murphy, former head of CCS and his wife, Barbara, and their 2 daughters Louise (19) and Jacqueline (17), have moved from Belgium to the Metropolitan Washington area.

Harry K. Hammond, III

DCMA Award

This cash award is presented for the best paper prepared on any aspect of the science of usage of color, use of colorants or their behavior which is presented to the Federation of Societies for Coatings Technology (FSCT). The Award is made annually by the Dry Color Manufacturers Association (DCMA) and is presented at the Annual Meeting of the FSCT. The Award recipient is selected by the Inter-Society Color Council (ISCC) Committee of the FSCT.

The ISCC Committee will consider only papers (manuscripts) submitted to the Journal of Coatings Technology or those submitted by oral presentation at the FSCT Annual Meeting. Manuscripts must be received by the ISCC Committee by August 31 of each calendar year to be eligible for the award presented at the corresponding year's Annual Meeting.

The author(s) of the manuscript are responsible for submitting the manuscript to the Chairman (or a member) of the ISCC Committee for consideration. However, manuscripts submitted to the Editor of JCT and to the Program Committee will be considered if they are called to the attention of the ISCC Committee.

Papers will be judged on the basis of originality and relevance to the coatings industry. If no manuscripts are received which meet the standards deemed worthy of the award in any single year, no award will be presented for that year.

Winners in 1977 and 1979 were Ruth Johnston-Feller and Dennis Osmer. The 1981 Award was won by Hugh R. Davidson.

India Colour '84

An International Symposium and Exhibition on Colour Instrumentation, sponsored by the Colour Group of India, will be held January 23-25, 1984, at the Taj Mahal Hotel, Bombay, India. If you are interested in presenting a paper or attending the meeting, please contact:

Dr. Allan B. J. Rodrigues, E. I. DuPont, 945 Stephenson Hwy., P. O. Box 2802, Troy, MI 48007. (313) 583-8245.

GROWTH OF COLOR PRINTING

Summary

The 20.4% increase in the deflated growth of commercial printing between 1972 and 1982 is all accounted for by the growth of color printing.

Growth of color printing

It is readily accepted that color has been one of the major growth areas in printing and publishing in recent years. However, few formal attempts have been made to quantify either the value of or the work load involved in color processing and printing. GATF research was specifically directed to the quantification both of market size and of the rate of growth of color reproduction.

A variety of both supply and end-use factors were examined to discover the likely trend in work load volume of color re-

production. The major items quantified were the following:

1. Color advertising pages per issue, in a sample of approximately 100 leading general magazines, rose by an average of 9.0% per year between 1976 and 1980. Over 90% of such pages were four-color.

2. Catalogs, major users of color, have seen unit sales volume grow by 9.5% per year between 1974 and 1980 (based on sales growth at R. R. Donnelley, a leading catalog printer).

3. The new supply of paper suitable for color printing (excluding newsprint and various miscellaneous grades) grew at an annual average of 5.0% between 1976 and 1980, reaching 37.8% of new paper supply compared with a norm of 33% in the late 1960s and early 70s.

These were combined to give the color-printing data in Table II. Weighting these factors according to their estimated importance indicates a trend growth rate in color processing and printing of close to 6.0% per year. This rate appears likely to continue through 1986.

Value of color printing

Estimating the value of color printing was more difficult. The best estimate that GATF has come across indicates that color reproduction amounted to approximately 50% of the value of all commercial printing in 1979-80.

Taking this estimated value in conjunction with GATF estimates of work load trends, and assuming that the inflation rate in color reproduction has moved in line with the printing and publishing industry average, it can be estimated that the value of color printing rose from $3,880 million in 1972 (42.6% of commercial printing shipments) to $10,250 million in 1980 (50.5%). Projections suggest that by 1986, the value will have risen to $22,700 million (57.3% of commercial printing).

Importance of electronic color scanning

These comments are made at a time when the use of color scanners is rapidly increasing. Scanners are both meeting and stimulating the demand for color. The number of scanners in use is up sharply (from 2,500 worldwide in early 1979 to 5,400 at the beginning of 1982). At the same time, the proportion of color separations performed on scanners is rising both in North America and in Europe.

Table I

Percentage of Color Separations Performed on Scanners

	1979	1982	1986
North America	35	55-60	75-80
Europe	60	70	80
Japan	90	90	90

Table II

Work Load Trends

	All commercial printing	Color printing	Other printing
1972	100.0	100.0	100.0
73	104.6	107.5	102.5
74	97.2	106.5	90.5
75	92.7	91.3	93.4
76	101.2	109.6	95.2
77	104.5	119.2	93.3
78	110.7	129.2	97.1
79	113.4	138.5	94.7
80	116.3	140.6	98.4
81	118.5	145.5	98.4
82	120.4	152.1	98.0
86	136.8	201.1	107.8

Sources: SIC 275, Department of Commerce, R. R. Donnelley, Magazine Publishers Association, American Paper Institute, GATF

What does this mean for one-color printing?

All growth in commercial printing in recent years has been in color printing. "Real" value of commercial printing in the United States is estimated to have risen 20.4% between 1972 and 1982. Within this same time period, color reproduction has risen 52.1% while other printing has not grown at all.

One-color printing apparently will grow about 1.8% per year in 1981-86 if commercial printing lives up to Department of Commerce forecasts. Color reproduction, however, is expected to continue dominating the growth performance of commercial printing in the next few years, growing at about 6.7% per year.

Michael G. Coulson

Reprinted from Graphic Arts Technical Foundation Market Research Newsletter.

CALENDAR

American Ceramic Society
Annual Meeting, April 24-27, 1983 – Chicago, Illinois

Canadian Society for Color
Annual Color Conference, May 11-31, 1983 – Toronto, Ontario

CIE
20th Session, August 31 - September 8, 1983 – Amsterdam, Netherlands

Federation of Societies for Coatings Technology
Annual Meeting, October 12-14, 1983 – Montreal, Canada

Graphic Arts Technical Foundation
Annual Spring Meetings, March 23, 1983 – Pittsburgh, Pennsylvania

ISCC Annual Meetings
April 8-10 – Detroit, Mich., Michigan Inn

Optical Society of America
Annual Meeting, October 17-21, 1983 – New Orleans, LA

Society of Photographic Scientists and Engineers
Annual Conference, May 31 - June 3, 1983 – San Francisco, California

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 I, Section 2). Application forms for individual membership may be obtained from the Secretary (address given above).

2. The Council reaffirms its community of interest and cooperation with the Munsell Color Foundation, an independent private foundation devoted solely to the advancement of color knowledge in science, art, and industry. It serves as Foundation Associate of the Inter-Society Color Council. The Council recommends and encourages contributions for the advancement of these purposes of the Munsell Color Foundation. For information, write to S. L. Davidson, 42 Kemp Avenue, Fair Haven, NJ 07701.

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 10028.

Deadlines for submitting items to be included in the Newsletter are: February 15, April 15, June 15, August 15, October 15, and December 15; in other words, the fifteenth of the even-numbered months.

Send newsletter items to:
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