Plan to arrive at TAGA '93 on Saturday in order to take advantage of the special airfare and two outstanding tutorials from 1:00 - 5:00pm on Sunday, April 25.

Tutorial #1 on Basic Statistical Process Control (SPC) will cover what SPC is and the benefits to be gained by using it. It will show how-to use SPC in both production areas and office areas using examples specific to the Graphic Arts. This tutorial will cover such SPC tools as histograms, flow charts, cause and effect diagrams, and control charts. The Tutorial will be presented by Nancy Lowther of Lowther Training and Development on Sunday, April 25 from 1:00 - 3:00pm.

Tutorial #2 on Digital Halftone Screening to be presented by Rene Delbar of Agfa Division, Miles, Inc. will introduce the basic "why's" and "how's" of digital halftone screening. The principles of screened image reproduction and the requirements for color printing will be covered, as well as the essence of rational and irrational layout screening methods. Various recent techniques that are today's "state-of-the-art" for PostScript color imagings will be discussed, as well as a look into the future.

The Technical Program will consist of 39 papers in seven sessions: Imagesetting, Digital Publishing: Work Flow and System Parameters in Prepress Production, S. Nordqvist; Implications of Large Format Typesetting for Electronic Work Flow, W. J. Ray; Classifications of Screening Methods, B. Kruse; Research and Production of an Electronic Atlas, B. Jiang, Q. Zhang; Which Color Gamut can be Achieved in Multicolor Printing and in Television?, K. Schlaepler, E. Widmer; Color and Tone Reproduction: Three Component Color Representations for Graphic Arts, R. Holub, L. Xu; First Considerations of Default RGB Database, W. C. Kress; Monitor Color Gamut Changes Under White Point Simulation, E. Jennings; Calibration, Measurement, Control, Verification: Device Independent Color Reproduction, J. DeClippeler; Conversion of Solid Ink Density and Dot Gain Specifications into (Continued on page 4)
Our interview this issue is with Henry Fournier, TAGA Board Member.

Henry, what does your job entail?
As Technical Manager of Elysee Colorotype in France, I deal with ensuring that all technical operations are performed at optimum capacity and capability. In fact, I deal with all aspects of the business, from the choice of materials and equipment to the setup and training on the equipment.

Why did you join TAGA?
Frankly, Jean Chevalier got me into it. Chevalier is a long-time friend. We have been working together since 1952. I joined TAGA in 1965. The more formal reasons relate to the opportunity to discuss and arguing (French people love a good argument!) technical points, ideas with colleagues working in related areas...whether in France, Europe, or worldwide...Hence TAGA.

How does TAGA help you in your job?
As I said before...contacts, contacts, contacts...Meeting people, exchanging ideas, knowledge. Of course, the TAGA Conference and Proceedings help a lot.

Why did you choose a career in graphic arts?
As a photographer, it was a foreseeable evolution. Actually, I learned and worked in almost every aspect of the reproduction and printing processes.

What do you do to stay up-to-date?
I read technical, trade magazines, and attend symposia and conferences. Although, one could say that there are only a few technical conferences in France...Really, not enough.

What do you do in your spare time?
Music...I play the violin. I also do some skiing and recently bought a boat. I like to work around the house, too. Gardening is my favorite.

What job-related activities are you involved in?
I am a member of FIPP (Federation Internationale de la Presse Periodique). I also helped set up a laboratory in Moscow.

Why did you run for a position on the TAGA Board of Directors?
I understand that TAGA is international in scope but is mainly a North American-based association. I would like to see more TAGA presence through meetings or conferences in Europe. This would obviously increase the number of European TAGA members. So when TAGA was looking for Board candidates outside of North America, I felt it was my chance to help TAGA establish a more affirmative presence in Europe.

Why should people join TAGA?
As I said before, for the same reasons I joined. Is it not TAGA's mission to provide a technical forum? However, the 'human contacts', which I believe you call networking, may well be one of the major benefits of TAGA membership. TAGA also provides a global outlook on the industry, a rare and welcome treat.

Do you travel on business? What is your most interesting trip?
you are regularly at TAGA Conferences, don't you? Professionally, TAGA is high on my list...but for pleasure, I would like to go to Asia (Taiwan) eventually.

What graphic arts publications, courses have impressed you recently?
A book on scanners by Dr. R. Molla, which I got after a TAGA Conference. The book by Gary Field on color is a good, easy-access synthesis. I do like the TAGA Technical Focus Group Sessions at the Conference as they usually become animated around a good argument. It is odd to realize that the questions are basically the same questions that are asked in Europe. It seems that, in some areas, people are not getting enough information. They are starting to get that...we are looking for simple explanations on more and more complex and complicated technical points.

Where do you see TAGA in the next few years?
It all depends on what TAGA will be doing in the near future. We should be more and more alert to technical innovations and continue to put forth optimum effort in getting this information to the members. For instance, I like Mike Bruno's new TAGA Newsletter feature (EMerging Technologies). I think that using the Newsletter as a vehicle for getting these 'hot topics' to the members will be a major benefit to them.

What did you do before your current job?
Having begun in the graphic arts industry as a photographer, I have, by now, a well rounded career. I must say that, with Jean Chevalier. Let's face it, we are doing some of European firsts as far as color reproduction is concerned: quick-proofs, color proofs (Remak, Australia)...because of Jean and myself, France was the first country to accept quick-color proofs.

Are you involved with education?
Let's say that, as part of my job at Colorotype, I have trained more than 30 people. I am also a jury member for the Chambre de Commerce, Ecole des Goelins (a famous graphic arts school in Paris). I do believe in educating our young people as they are the future of our industry.

Henry, thanks for your frank, honest input!
try that is now making very extensive use of the latest sophisticated digital imaging and printing technologies. It is a $15 billion industry worldwide for very strong and active association, over 900,000 billboards lining America’s interstate and primary highways — except in Maine, Vermont, Alaska, and Hawaii — that advertise everything from automobiles to zoos. In addition posters are used to advertise on sides of buses, inside buses and trains, atop taxis, in airport, train and bus terminals, on the sides of buildings, on fences, and other areas where they can attract attention.

Lithography is still the major printing process for quantities of posters for billboards. They are designated as 30-sheet instead of 24-sheet despite the fact that most posters are made in 8 to 10 sections. The arc light projector has been replaced by the digital Polychrome 1014 projector which was formerly the Rachwal Super 70 imaging system. Forty-four of these projectors are used worldwide for large format digital imaging by lithographic plate with a Integrated digital printing systems are used for the very short runs of 1-100 used for some poster runs, and prototypes or proofs of longer run posters.

Two types of output systems are used for digitally printed posters. These are electrophotographic and ink-jet.

**Electrophotographic Systems**

Two electrophotographic digital output systems are used for large format poster printing. They are Cactus (Fairfield, NJ) and 3M ScotchPrint (St. Paul, MN). The Cactus system uses a Macintosh color input system and a 44” or 54” Xerox. The other system uses a plotter modified by a special Toner Control Unit, special toners, and error-diffusion halftone algorithms that output continuous tone (random screen) images. The 3M ScotchPrint Electronic Graphics System is a composite electrophotographic-device-independent components modified by extensive software and hardware.

**Ink-Jet Systems**

Five ink-jet systems are in use for producing large format digital images. These are IRIS (Bedford, MA), Stork (Bedford, MA), Canon Bubble-Jet (Lake Success, NY), Scitex Outbound (Bedford, MA), and FlexPrint (Los Angeles, CA). IRIS produces continuous tone images in sizes up to 36” x 47”. Larger outdoor posters can be made paneling and laminating a UV absorbent film over the print. IRIS also has a translucent (Translite) substrate for posters. Stork produces similar images up to 36” x 47”. Canon Bubble-Jet produces images up to 23-3/8” x 33 feet — larger images can be panelled. Scitex Outbound produces images 5 ft. 3 inches wide by any billboard length, and its print speed is 450 sq. ft. per hour. UV and water-resistant inks are used. FlexPrint, produced by Metro Media Technologies, is a one-piece billboard advertising in sizes up to 26 ft. x 60 ft. A sheet of translucent vinyl for daylight and back-light night viewing is used as the base, and the image is produced by 16 paint jets that discharge as many as 31 million dots to create the final image in about 5 hours for 26x60 ft. poster.

More information on these systems and other digital printing technologies is contained in the special report “The Printer’s Role in a Digital Printing World” that was distributed with my newsletter “What’s New in Graphic Communications”, No. 101 November-December 1992.

(Continued from previous page)

In addition to the fine technical program, four lively discussion groups will meet. These Technical Focus Groups will discuss the topics of Desktop Publishing led by Patrice Dunn of Dunn Technology; Ink, Paper and Press led by Les Watkins of Handschyc Industries; Color Applications led by Tony Johnson of Crosfield; and Environmental Issues led by C. Nelson Ho of GATF.

Many exciting papers and events are planned at TAGA '93. This international Technical Conference allows attendees to participate in the free exchange of information without sacrificing the competitive positions of the companies they represent. So, be sure to attend to gain first-hand knowledge on the absolute latest information on today's ever-changing technologies.

**INDUSTRY MEETINGS FOLLOW TAGA'93**

**MIDWEST GRAPHICS**

Why not extend your stay in Minneapolis — and boost its value still further — by adding MIDWEST GRAPHICS to your schedule?

MIDWEST GRAPHICS runs April 29 to May 1 at the Minneapolis Convention Center. It's the region's premier exposition of products, services and new technology for the printing and publishing industries, with over 100 top exhibitors.

It's the ideal learning and shopping forum for specialists in desktop publishing, corporate communications, commercial printing, prepress trade services, quick print, and other fields. Plus...MIDWEST GRAPHICS will offer one of the year's best opportunities to update and expand your industry knowledge, through a program of 14 seminars presented by 3M Company and Printing News/Midwest magazine.

Register by April 2 to save money. For a registration brochure contact the Graphic Arts Show Company, 1989 Preston White Drive, Reston, Virginia 22091-4367; fax 703/620-9187; phone 703/264-7200.

**TAPPI MEETINGS**

Advanced Coating Fundamentals Symposium
The 1993 Advanced Coating Fundamentals Symposium will be held April 30-May 1 at the Marriott City Center (the TAGA '93 Conference hotel) in Minneapolis.

Co-sponsored by TAPPI and Japan TAPPI, this Symposium will feature speakers from numerous countries and will bring together researchers from the industry, academia, and prominent scientists from other fields in a forum focusing on the fundamental aspects of coating. Over 100 engineers and scientists from all over the world are expected to attend this symposium to identify and address needs for paper coating research.

1993 TAPPI Coating Conference
TAPPI will hold their 1993 Coating Conference on May 2-6 at the TAPA'93 conference hotel, the Marriott City Center in Minneapolis.

The conference will focus on the theme "Back to the Basics" and will include two areas of concentration: practical applications and coating theory and fundamentals.

A Poster Session where companies can display new technologies and services will be held on Tuesday, May 4, in conjunction with the Suppliers Showcase. On Thursday, May 6, participants will have the opportunity to tour Champion International's Sartell Mill.

New technology and practical applications presented at this conference will benefit paper mill personnel, researchers, and scientists involved in coating technology, and coating suppliers. The preregistration deadline for both TAPI meetings is March 26, 1993. To register by phone, call TAPI's toll-free service line 800/332-8868 (U.S.), 800/446-9431 (Canada) or 446/446-1400 (Outside the U.S. and Canada).

For more information on the Symposium, contact the TAPI Meetings Headquarters, P. O. Box 108113, Atlanta, GA 30348-5113, 404/446-1400, ext. 209.
PRESIDENT'S MESSAGE

Good News!

Dear Member:

I would like to share with you some very good as well as exciting news from TAGA. We have hit our 45th year, and TAGA is alive, well, and vibrant. We've had an exciting start to this year with the following to report to you: 1.) Conference support in terms of cash as well as physical donations will break all records. 2.) The number of papers submitted to TAGA for presentation at the annual technical conference has been outstanding. This year we have had to turn down many fine papers because of the abundance made available to us. 3.) It looks as though the TAGA tutorials at the CONCEPTS program in Florida will be a smash hit. Mike Bruno's tutorials are leading the way in terms of attendees. With all this success, we still do need more individual members. With the cutbacks in research monies available to our industry, we have seen a slight decline in membership. Anything that you can do to encourage a friend, an associate in the industry to join TAGA would be greatly appreciated. Quantities of membership brochures are available from Karen Lawrence at the TAGA Office. TAGA's mission for the future will more than likely remain the same. It looks as though for the next 45 years we will continue sharing, disseminating, and reporting technical information on the graphic arts. Please plan to join us at TAGA's 45th Anniversary celebration at TAGA '93 in Minneapolis at the Marriott City Center, April 28-29th. I look forward to seeing you there!

1993-94 ELECTION OF TAGA OFFICERS AND DIRECTORS

Biographical material on each of the following candidates and a ballot will be forwarded to all individual and senior members by March 3, 1993:

FOR PRESIDENT

Patrice Mangin
PAPRİCAN

FOR EXECUTIVE VICE PRESIDENT (You will vote for one)

Dick Fisch, 3M Company
Don Voas, James River Corp.
Les Watkins, Handschy Industries

FOR SECRETARY-TREASURER (You will vote for one)

Len Leger, RIT (former TAGA Managing Director)
Eric Tobias, Tobias Associates

FOR BOARD OF DIRECTORS (You will vote for one)

Jim Barre, Eastman Kodak Co.
Bruce Capriotti, W.R. Grace
Henry Fournier, Elysee Colotype
Paul Guy, Schawk

Richard Holub, Agfa Division of Milko, Inc.
Bill Palafax, Polychrome Corp.
Stanley Rosen, Silet Americas Corp.
Bill Tasker, INX, Inc.

TAGA Newsletter • Winter 1992-3
The on campus student run printing around the GrC department recently. A call company, printed a full color school newspaper although it is not specifically a TAGA project, many chapter members are involved in the project. The Mustang Daily is the only university paper that is produced entirely upon campus by students. There is now talk of running a color edition once a week.

The Fall'92 semester start-up of the Clemson/TAGA Student Chapter was a full, variety packed experience for chapter members. Over 25 students were on hand for the organizational meeting in August. At the second meeting, officers were elected for the 1992-93 school year: Kim Howell, President; Ellisa Irvin, Vice President; Lisa Gentry, Secretary; Lynn Driver, Treasurer; and Todd Skidmore, Publicity.

During the following weeks, chapter activities ranged from student presentations to international guest speakers. Kim Howell presented research she had performed in the area of imagesetting radial and graduated tints and screen printing. The work was included as a poster paper during the TAPPI International Printing Conference held in Pittsburgh in October. Another poster paper was developed for the conference by John Ballentine on Preprint Liners. The coordinator of the student poster paper participation at the conference was TAGA Executive Vice President, Patrice Mangin.

The Clemson/TAGA Chapter hosted guest speaker Michel Caza, the renowned screen printer from Paris, France, who devoted several hours to a process color seminar which included theory/application lecture, examination of commercial and art reproductions from Caza's plant (Atelier d'Art Michel Caza), and a question/answer period. Members were most impressed by Caza's merging of technology and art as well as the applications presented.

In November, another guest speaker, David Albrecht of Macbeth, shared his expertise with the students in the areas of measurement, color measurement, and the integration of measurement in production in order to establish meaningful production analysis. Discussion centered on select applications for densitometry in film and print measurement. The CU/TAGA Chapter members and guests gained a stronger foundation for process analysis and control.

December brought the chapter members an opportunity to develop an ad to be run in American Printer, Graphic Arts Monthly, EC&L, and PrintAction magazines for the 1993 TAGA Annual Technical Conference (the photo of which appears on the cover of this newsletter). With the support of TAGA Managing Director, Karen Lawrence, and Anni-Marie Rose of Hosome and Rose Photographics in Minneapolis, CU/TAGA Chapter member Susan Fennel and chapter advisor and TAGA Publicity Chair Sam Hogstrom, the ad was created and films shipped to the magazines in mid-December. The production story was shared with other members and really highlighted the end of the Fall Semester.

Spring Semester has begun with the review of papers for the Harvey Levenson Student Papers Competition and the initial stages of production of Clemson/TAGA Student Chapter Technical Publication. All members are also involved in planning for the ATC in Minneapolis and several related projects. They continue to be excited about the opportunities both TAGA and its membership have offered the Clemson/TAGA Student Chapter.
MEMBERS IN THE NEWS

TAGA Members Serve as Judges at the 6th Annual Florida Print Awards

TAGA Executive Director Mike Bruno, board member Sam Ingram, Associate Professor at Clemson University, and former board member John Favat, Sr., International Director of Coast Publishing served as judges of the competition for the 6th Annual Florida Print Awards which took place in Orlando, Florida on December 13-15, 1992. Five-hundred-eighty-seven entries were judged in 45 categories and 129 sub-cATEGORIES. Best of Categories and Awards of Excellence winners were displayed at the Graphics of the Americas '93 Trade Show, January 22-24, 1993, at the Miami Beach Convention Center.

Individual Company awards were presented to the winners at the awards banquet and ceremony on February 20, 1993 at the Stouffer Orlando Resort.

NEW MEMBER BENEFIT

Now paying your TAGA annual membership dues is as easy as dialing the phone or sending a fax! Starting immediately we can accept your Visa, MasterCard, or American Express credit card information for membership dues and all TAGA products.

If you have not already mailed your 1993 dues payment to the TAGA Office, you can simply pick up the phone and give us a call or fax us a copy of your dues invoice with your credit card number, expiration date, and signature.

This new mechanism for easy dues renewal has been implemented solely for added convenience to you, our members.

FREE TAGA PIN

You can obtain the TAGA membership pin FREE by introducing a colleague to TAGA.

For only $60 annually, TAGA members receive the TAGA Proceedings, the TAGA Journal, and the quarterly TAGA Newsletter. A TAGA member also receives the benefit of attending the TAGA Annual Technical Conference at special member rates as well as the opportunity to attend meetings in which TAGA is a participating sponsor (such as CONCEPTS). TAGA members are also offered the opportunity to purchase products such as Technical Focus Group audio tapes and videos of tutorials presented at the Annual Technical Conference. The tape is due for release in May on the topic of Calibration and Linearization.

So, take just a moment to think about which of your colleagues would benefit from TAGA membership and give them a call. Bring in a new member and both of you will have an attractive green on gold TAGA pin.

Just identify the individual above, complete the payment information, and fax it (if using a credit card) or mail with the person’s first year’s dues to the TAGA Office, P.O. Box 9887, Rochester, NY 14623. It’s that simple! Don’t allow your colleagues to spend another day without experiencing the rewards of TAGA membership.

TAGA Newsletter • Winter 1992-3

TAGA Membership Application

Name ____________________ Position ____________________
Company/School ________________
Address ____________________ City ______ State ______ Zip ______
Telephone ____________________ Fax ______
Home Address ____________________ City ______ State ______ Zip ______
Address to be used for TAGA mail: Q Business Q Home

Dues
Q INDIVIDUAL MEMBERSHIP $60.00/year
Q SENIOR/RETIRED MEMBERSHIP $20.00/year
Q STUDENT MEMBERSHIP $20.00/year Anticipated Year of Graduation ________________
Q I hereby apply for membership, enclosing payment of dues for the first year, beginning January 1, 19__.

I agree, if elected to membership, to promote the mission of the Association and to be governed by its Constitution and Bylaws in matters pertaining to the Association as long as I remain a member.

Signed ____________________ Date ________________

Q Please send more information about TAGA Corporate Sponsor Membership
Method of Payment: Q Check Enclosed Q VISA Q MasterCard Q American Express
Card Number ________________ Exp. Date ________________
Name as it appears on credit card ____________________
Referred by ____________________

TAGA Member
### TECHNICAL ASSOCIATION OF THE GRAPHIC ARTS

One Lomb Memorial Dr.
P. O. Box 9887
Rochester, NY 14623-0887

#### OFFICERS

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<tr>
<td>President</td>
<td>Raymond J. Prince, GATF</td>
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<tr>
<td>Executive Vice President</td>
<td>Patrice Mangin, PAPRICAN</td>
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<td>Richard S. Fisch, 3M Co.</td>
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<td>Vice President Membership</td>
<td>Jeannette Truncellito, Sun Chemical Corp.</td>
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<td>Acting Secretary-Treasurer</td>
<td>Eric Tobias, Tobias Associates</td>
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#### BOARD OF DIRECTORS

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<tr>
<td>Bruce Blom, James River Corp.</td>
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<td>Robert Chung, RIT</td>
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<td>Henry Fournier, Elysees Colortype</td>
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<td>David Gerson, Printers' Service</td>
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<td>Sam Ingram, Printers' Service</td>
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#### STAFF

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<tr>
<td>Managing Director</td>
<td>Karen E. Lawrence</td>
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<tr>
<td>Executive Director</td>
<td>Michael H. Bruno</td>
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<tr>
<td>Secretary</td>
<td>Kara L. Knopf</td>
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**Paper courtesy of Potlatch Corporation, Northwest Paper Division. Cover photo designed by Susan Fennell, Clemson University, using Aldus Freehand 3.01 and Adobe Photoshop. Art Director: Dr. Sam Ingram. The digital image “Minneapolis & St. Paul Fantasy” was created using 13 photographs by Ann-Marie Rose of Husom & Rose.**

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