

SECRETARY'S MESSAGE

Co-location – it’s an awkward term, undoubtedly, but by November, we hope the word will be synonymous with opportunity and excitement. In this newsletter, you’ll find registration information, hotel details, and other plans for our upcoming co-located Minneapolis meeting with the History of Science Society. We love to talk about inter/cross-disciplinary thinking, so this meeting challenges us to put this rhetoric into action and enjoy real intellectual cross-fertilization. Research topics such as history of biotechnology and genetic engineering, scientific instrumentation, and environmental and medical science (to suggest just a few) have increasingly blurred boundaries between our fields. Although the two societies’ program committees operated separately, our offices have worked hard to coordinate HSS and SHOT schedules to facilitate cross-session attendance. I encourage everyone to check out not only our very strong SHOT program (many thanks to chair Dan Holbrook, Ruth Oldenziel and Jennifer Light) but also HSS’s program, which you can find at their website: http://www.hssonline.org/main_pg.html As Bill Leslie declared two years ago, “As we grow and mature, we have to build bridges rather than burn them.” It’s been terrific sharing planning and preparations with Jay Malone and other HSS people, who have been generously helpful with their time and assistance – everyone is truly committed to making this meeting a success for all.

You’ll have additional chances to mingle with HSS people (and also old and new SHOT friends, of course) at a joint Thursday plenary session and opening reception, the book display, and breaks. The Lemelson Center will sponsor what promises to be a fabulous SHOT Friday reception at the Science Museum of Minnesota, where you can visit the Lemelson travelling exhibit “Invention at Play”. Our local arrangements chair, David Rhees, has prepared

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SHOT Newsletter Editorial Policies, Advertising Rates, and Submission Deadlines

The SHOT *Newsletter* is published quarterly in April, July, October, and January and is sent to all individual members of the Society. Items for inclusion will be published **if received by the 1st of the previous month**. Please note that material for the newsletter may be submitted via electronic mail. Non-members and institutions may receive the *Newsletter* by separate subscription for \$15 per year. The *Newsletter* can also be read at the SHOT website.

Readers should verify closing dates and other information provided by institutions and sponsors; the editor and SHOT are not responsible for changes or typographical errors. Advertising for books, journals, and other matters related to the interests of the Society and its members is accepted if received by the 1st day of the previous month.

Advertising Rates: Full page (7-1/2" x 9-1/2"), \$200;
 Half page (7-1/2"x5" or 3"x 9-1/2"), \$150;
 Quarter page (3" x 5"), \$100

The SHOT logo was created by Brickworks of London

intriguing Thursday tours, featuring his own Bakken Library and Museum of Electricity and the award-winning new Mill City Museum. Would you believe that during its 1880-1930 peak of production, the Washburn A mill (now the museum site) milled enough wheat to make more than twelve million loaves of bread a day? No wonder that the city's first professional baseball team was called the Minneapolis Millers...

This newsletter contains the preliminary version of our Minneapolis program, but please be sure to check the SHOT website periodically for updates. Meanwhile, please take a look at other important features in this newsletter. You'll find a long list of Constitutional revisions proposed for our Minneapolis business meeting. Operating on behalf of the SHOT Executive Council (which has reviewed and endorsed the changes), Terry Reynolds bravely supervised this process to make our Constitution more clear and up-to-date. You'll also find our SHOT election material – many thanks to all our candidates, plus Nominating Committee members and chair Maggie Dennis. Please acknowledge their hard work by exercising your right to vote, via either paper ballot or our online form (but not both)!

Finally, Roz Williams devotes her president's column to addressing the vital question of how SHOT and *T&C* can work with the rapidly evolving publication world to think about how we can make these changes work for our benefit. We intend to explore this question in greater depth at the Minneapolis meeting, along with continuing discussions about SHOT's anniversary planning and more. Hope you can join us for these conversations!

Amy Sue Bix
 Iowa State University

WELCOME TO MINNEAPOLIS

On behalf of my colleagues at The Bakken Library and Museum, the University of Minnesota, and the Minnesota Historical Society, I would like to welcome the 2005 SHOT meeting to Minneapolis. The meeting will take place at the Hyatt Regency on Nicollet Mall in downtown Minneapolis. In addition to the usual modes of ground transportation, you can ride our brand new light rail transit system directly from the Minneapolis-St. Paul Airport to the downtown stop at Fourth and Nicollet Mall (from there, you can walk or take a cab or bus the remaining 9 blocks west to the hotel). The Hyatt is convenient to Orchestra Hall, Loring Park, the Guthrie Theater, the Minneapolis Sculpture Garden, and the Walker Art Center (which recently completed a major expansion that has received rave reviews). You can enjoy many fine restaurants within easy walking distance, including the popular Brit's Pub and The Local, two favorite watering holes.

Trolley tours to the Bakken and Mill City museums will be offered on Thursday afternoon (see below). A Friday evening reception will be held at the Science Museum of Minnesota in St. Paul, where you'll get to view "Invention at Play," a traveling exhibition by the Smithsonian's Lemelson Center.

Of course, Minnesota is the famed Land of Lakes, including Garrison Keillor's famed Lake Wobegon, and you may wish to catch a performance of the Prairie Home Companion at St. Paul's Fitzgerald Theater on November 4 or 5. And the weather – well, this IS Minnesota, and November can be a bit unpredictable, but the good news is that we usually don't get measurable snow until late in the month. As they say around here, "dress in layers."

Best regards,
David Rhees (rhees@thebakken.org)

SHOT Business Meeting

The SHOT business meeting will be held on
Saturday, November 5 from 5:45 to 6:30 p.m.

EVENTS HOSTED BY SHOT

SHOT-HSS joint opening reception.

On Thursday, November 3 at 7:30 p.m., SHOT and the History of Science Society will host a joint opening reception in the Hyatt Regency. This reception will follow the joint SHOT-HSS plenary session, which will run from 5:30 to 7:30 p.m. This reception will feature light refreshments and a cash bar. The reception is free for SHOT meeting registrants, but you must sign up for this event if you plan on attending; please indicate your attendance on the conference registration form.

SHOT reception

On Friday, November 4 at 7:00 p.m., SHOT will host a reception at the Science Museum of Minnesota. This reception is sponsored by the Smithsonian's Lemelson Center for the Study of Invention and Innovation. Attendees will have a chance to tour the Lemelson Center's national traveling exhibit "Invention at Play," along with other exhibits at the Science Museum. We will have buses running to take you between the Hyatt and the Science Museum. This reception is free for SHOT meeting registrants, but you must sign up for this event if you plan on attending; please indicate your attendance on the conference registration form. You can find more information about the Science Museum of Minnesota at: <http://www.smm.org/> and more information about "Invention at Play" at: <http://www.inventionatplay.org/>

Graduate Students and Current SHOT International Scholars Breakfast.

On Saturday, November 5 at 7:30 a.m., the SHOT officers will host their annual breakfast for graduate students and current SHOT international scholars. This breakfast will be in the conference hotel and will feature a continental breakfast buffet. This breakfast is free for graduate students and our current SHOT international scholars, but space is limited to the first forty-five students and current international scholars to sign up. You must register for this event in order to attend; please indicate your attendance on the conference registration form.

SHOT Awards Banquet.

On Saturday, November 5 at 7:00 p.m., SHOT invites you to attend the annual Awards banquet to be held in the ballroom of the conference hotel, the Hyatt Regency Minneapolis. This is a wonderful opportunity to enjoy a

relaxing evening with old and new friends, to show our appreciation to the SHOT community, and to honor the recipients of SHOT's annual awards. Please sign up for the banquet on the conference registration form, and please indicate your choice of a chicken or vegetarian entree. Tickets are \$52 per person, and you must register for the banquet in order to attend.

Friday Evening Reception

TEMSIG and the Lemelson Center invite you to experience the exhibition *Invention at Play*, during the Friday evening reception at the Science Museum of Minnesota (SMM). *Invention at Play* is a highly interactive, engaging, and surprising traveling exhibition developed by the Lemelson Center in partnership with SMM. It focuses on the similarities between the ways children and adults play and the creative processes used by innovators in science and technology. The exhibit departs from traditional representations of inventors as extraordinary geniuses who are "not like us*" to celebrate the creative skills and processes that are familiar and accessible to all people. Our featured guest will be Art Fry --inventor of Post-It Notes.

The Lemelson Center was founded in 1995 at the Smithsonian's National Museum of American History through a generous gift from the Lemelson Foundation. The Center's mission is to document, interpret, and disseminate information about invention and innovation, to encourage inventive creativity in young people, and to foster an appreciation for the central role invention and innovation play in the history of the United States.

www.invention.smithsonian.org

This reception will feature light refreshments and a cash bar.

TOURS

Note: Both tours will depart at **1:30 p.m.** on Thursday, November 3 and will depart via RiverCity Trolley at the Hyatt Regency lobby entrance. Tours will return by 5:00 p.m. in time for the 5:30 p.m. plenary session.

Availability is limited, so book early. Subject to cancellation for lack of participation. Fees cover transportation and admission.

Bakken Library and Museum Tour: Takes a rubber-wheeled trolley around the scenic "Chain of Lakes", past some of the finest homes in the Twin Cities, to arrive at the elegant Bakken Library and Museum of Electricity in Life on Lake Calhoun. Located in a recently-expanded Tudor mansion surrounded by medicinal gardens, The Bakken holds the world's leading collection of rare books and scientific instruments on the history of electricity and its role in medicine and the life sciences. The exhibits combine history with hands-on techniques and feature themes from electric fish to mad scientists to the cardiac pacemaker. And if all goes well, you will get a chance to meet the charming author of *Frankenstein*, Mary Wollstonecraft Shelley. Cost: **\$20**.

Mill City Museum Tour: Takes a rubber-wheeled trolley around the dramatic Mississippi riverfront, crossing the magnificent Stone Arch Bridge, to arrive at the new Mill City Museum. Opened by the Minnesota Historical Society in 2004, it chronicles the flour milling industry that dominated world flour production for roughly a half-century and fueled the growth of Minneapolis, recognized across the nation and around the world as "Mill City." Built within the ruins of a National Historic Landmark — the Washburn A Mill — the museum provides a multi-sensory, interactive journey. The story of flour milling — and its impact on Minneapolis, the nation and the world — comes to life through the eight-story Flour Tower and other hands-on exhibits. If all goes well, you may get a chance to meet William de la Barre, the 19th-century engineer who developed waterpower for the mills. Cost: **\$20**.

SIG MEETINGS

The **Military History** SIG will hold a luncheon at Brit's Pub, 1100 Nicollet Mall (2 blocks north from the hotel on Nicollet) on Friday, November 4 at noon. You will pay for your lunch at the restaurant, and you can attend the meeting without purchasing lunch. To help us know how many people are planning to attend this luncheon, please indicate your participation on the SHOT conference registration form.

The **Mercurians and Jovians** annual meeting will take place at a breakfast meeting on Saturday, November 5, from 7:30 to 8:45 at the conference hotel. The continental breakfast includes sliced fruit, fruit breads,

Danish and muffins with cream cheese and toaster, assorted fruit juices, coffee and an assortment of teas. Please indicate your participation on the registration form. The cost of the breakfast is **\$19 or \$9 for grad students**.

WITH (Women in the History of Technology) will hold a luncheon meeting on Friday, November 4, in the conference hotel. The cost of the lunch is **\$18 for grad students/underemployed or \$33**. The menu for the luncheon includes chili, salad and potato bar with toppings, beef and vegetarian chili, chopped green salad with carrots, cucumbers, tomatoes, and ranch dressing, rolls and butter, and assorted cookies and brownies. Please indicate your participation on the registration form.

The **Albatrosses** (aviation and space history) SIG will be meeting for a continental breakfast during the SHOT annual meeting. Everyone is welcome to attend the session scheduled for Friday, November 4 between 7:30 and 8:45 a.m. at the hotel. If you wish to eat breakfast, please indicate this on your meeting registration form. The cost for the continental breakfast is **\$19**. (Please note that you can attend the meeting without ordering the meal.) More details will be distributed through the Albatross electronic newsletter. If you wish to subscribe, please send a message to Rob Ferguson (rob@furglu.com). Other questions can be directed to Debbie Douglas (ddouglas@mit.edu).

The organizers of **Tensions of Europe** invite SHOT members to register for a breakfast on Friday, November 4, at 7:30 a.m. at the hotel. A continental breakfast will be served, and the price is **\$19**. Please indicate your intention to participate on your registration form.

TEMSIG will hold a lunchtime meeting on Saturday, November 5. Those interested should meet Maggie Dennis at the concierge desk in the hotel lobby at noon. The lunch location is to be determined. You are welcome to attend this even if you did not indicate TEMSIG attendance on your conference registration.

Envirotech will hold a breakfast meeting on Saturday, November 5, at the conference hotel at 7:30 a.m. The cost of the breakfast is **\$22**. Please indicate your intention to participate on the registration form.

The SIG on **Computers, Information, and Society** will hold a lunch meeting at the conference hotel on Saturday, November 5. The luncheon will include a soup and sandwich bar. The cost is **\$31**. Please indicate your participation on your registration form.

The **Grad Student and Current International Scholars** breakfast will be held Saturday, November 5, at the conference hotel. The cost of the continental breakfast is **\$17**.

The new **Engineering SIG** (see announcement following) will hold a breakfast meeting at the conference hotel on Friday, November 4. The cost of the continental breakfast is **\$17**.

A New Special Interest Group Devoted to Strengthening Relations Between SHOT and the Engineering Community

In SHOT's early years, the society had very close relations with the engineering community. As Bruce Seely reminds us, SHOT's first annual meeting was held with the convention of the American Society for Engineering Education and in 1964 some members complained that the balance in SHOT was tipping too much away from practicing engineers in favor of academic historians!¹ As SHOT has matured as an organization and established its own identity, it has moved away from the engineering community while gaining historical depth and breadth, signs of maturation and accomplishment. But the engineering community and its cousin -- the engineering education community -- remain important parts of SHOT's environment and valued segments of its membership. Many SHOT members hold academic positions earmarked wholly or partly to teaching engineering students. Our professional and pedagogic futures depend in part on how vital we can make the history of technology to engineering education. Today's practicing engineers can be both sources and testing grounds for historical research. After publication, the engineering community remains a large and important audience for our work.

Today the great diversity of interests represented in SHOT is perhaps the most important strength of the institution. But that diversity itself suggests that we would be well served by making a more explicit effort to tend our relationship with the engineering community. Individuals within SHOT have been involved with engineering practitioners and teachers in a variety of ways. At this juncture, a special interest group would enable us to focus our energies and provide a point of entry for other interested SHOT members. What this SIG will do, (or whether it will exist at all) will be determined by those who come to the meeting in Minneapolis. Some possibilities are listed below:

Education - Many SHOT members find it useful to keep in touch with what is going on in the world of engineering education. Some of the issues we might address as a SIG include: What changes are being proposed in engineering education standards (for example, ABET's EC 2000 Criteria) and what do they mean for us? How have schools and/or programs negotiated these changes? How might we work together with groups whose interests intersect with ours, such as the Liberal Education Division of the American Society for Engineering Education? How might we make the history of technology a more integral component of engineering education? In what ways can we work to share our own craft knowledge about teaching practices?

Research - Notwithstanding the field's interest in social construction, much recent scholarship remains focused on the nature of engineering work. A SIG could promote useful and stimulating dialogue between the engineers and the historians in our membership. At the very least, a SIG gives our small number of engineer members a clear signal of the organization's interest in their voice.

Outreach - In recent years SHOT's leading lights have wisely lamented that the audience for our work and concerns is not as large as we might like. Improved outreach to the engineering community could bolster our visibility with a natural constituency. Specifically, this SIG could coalesce efforts by historians of technology who were interested in reaching engineers to connect with this audience. The SIG should also provide a welcoming entry point into SHOT for the next generation of Cyril Stanley Smiths or Walter Vincentis, practicing engineers interested in history.

SHOT's diversity is a great strength in this effort. People from different academic specialties, work histories, institutions, and countries will all offer different perspectives and experiences. The first requirement for any SIG is a name. So let your creative juices flow this summer and bring not just your ideas for the SIG, but your ideas for a name for this new yet enduring focus for SHOT.

Ross Bassett, North Carolina State University
Jack Brown, University of Virginia

¹Bruce E. Seely, "SHOT, the History of Technology, and Engineering Education," *Technology and Culture* 36 (October 1995): 739-772.

Hotel information

The conference hotel is the Hyatt Regency Minneapolis, located at 1300 Nicollet Mall, Minneapolis, Minnesota, 55403 USA. You will find that this is the most convenient place to stay during the meeting. Anchored by Nicollet Mall in the heart of the downtown business, financial and shopping districts, Hyatt Regency Minneapolis is convenient to Orchestra Hall, Loring Park, the Guthrie Theater, the Minneapolis Sculpture Garden, and the Walker Art Center.

Our special SHOT conference rates are \$115 single or double, \$125 for a triple, and \$135 for quadruple (plus taxes). These prices are in effect until October 1, 2005; please be sure to make your reservations before this deadline.

Please ask for the SHOT conference rate when making your reservation, and be sure to tell the hotel reservation agent that you want a room in the SHOT room block.

You can telephone in your reservation using this number:

Hyatt reservations department: (888)-421-1442

The website for our Hyatt Regency Minneapolis is:

<http://minneapolis.hyatt.com/property/index.jhtml>

You can make hotel reservations through the SHOT website at:

http://www.shot.jhu.edu/Annual_Meeting/hotel05.htm

Getting to the Hyatt Regency Minneapolis

Airport:

If you arrive at the Minneapolis-St. Paul Airport (MSP), you can take the **Super Shuttle**. SHOT and the History of Science Society have arrangements for a special discounted rate of \$13 one-way cost or \$22 round-trip. You can find a coupon for this elsewhere in this newsletter or print out this coupon from the SHOT annual meeting website.

Further information for the SuperShuttle Shared-Ride Van Service:

Reservations are not necessary for arrival into Minneapolis – St. Paul International Airport.

1. Claim your luggage at Baggage Claims.
2. Proceed to the lower level (follow signs to ground transportation), and continue to follow the signs upstairs to the Scheduled Van/Hotel

Shuttle Van loading area. SuperShuttle is conveniently located inside the terminal at the Ground Transportation Atrium.

3. Identify yourself to the SuperShuttle agent and show your Special Rate Coupon to purchase your ticket and you will be transported to your hotel.

Return Reservations:

SuperShuttle Shared-Ride Van Service, or Exclusive Van Service: Please contact us at 800-BLUE-VAN at least 24 hours in advance of your departure time. Reservation agent will suggest pick up time from your hotel. To book online go to www.supershuttle.com. Our local contact number is 612-827-7777 ext 1.

On-line Reservations:

Online reservations can be made in advance. Reservations will need to be guaranteed by a credit card. Please have your flight information available and your discount code #UZDMB

To Book on-line: www.supershuttle.com. Click on on-line reservations.

Welcome: Make your reservation choice. (To airport, From Airport, or

Round-Trip). Have discount code #UZDMB available.

Flight info: Have your airline, flight number, and times available.

Enter Hotel or Landmark: I.E. HYATT REGENCY (Make sure address matches your itinerary. The hotel chain may have more than one location)

Choose shared-ride or exclusive-van service. Shared ride service makes stops at other hotels. Exclusive van service is private van service meant for groups up to ten guests.

Select pick-up time,

Select payment type (Must be done on credit card),

Review and Confirm.

If you wish to take a taxicab to the Hyatt, downtown Minneapolis is approximately 16 miles from the airport, with fares averaging \$25.00.

Alternately, you may want to use the new Minneapolis light rail connection (labeled Transit Station) - go to the Nicollet Mall Station (the second to the last) and then transfer to any city bus southbound on Nicollet for a short ride to the Hyatt at 13th St.

Light rail/metro bus tickets are \$1.25 (\$1.75 during rush hours) and are valid for 2 1/2 hours of travel. Trains stop at both the Lindbergh and Humphrey airport terminals.

For more information, please see

<http://www.metrocouncil.org/transportation/lrt/lrt.htm>

Driving directions:

From MSP Airport:

Follow signs to 494 West. Continue on 494 West to 35W North.

Take downtown 11th Street exit. Take 11th Street to 2nd Avenue.

Turn left on 2nd Avenue. Turn right at Nicollet Avenue.

From 35W South:

Follow signs for downtown to 11th Street exit.

Take 11th Street exit. Take 11th (Heading North) Street to 2nd Avenue.

Turn left on 2nd Avenue. Take right at Nicollet Avenue.

From 35W North:

Exit on Washington Avenue. Take right on Washington Avenue to

2nd Avenue (Heading South). Turn left on 2nd Avenue.

Continue on 2nd Avenue through downtown past the Convention Center. Turn right on Nicollet Avenue.

From 94 North West:

Exit off 94 to North 4th Street. Follow 4th Street to 2nd Avenue.

Turn right on 2nd Avenue. Turn right at Nicollet Avenue.

From 94 East:

Follow 94 West, stay in the far right lane to the 11th Street exit.

Take 11th Street (St. Paul) to 2nd Avenue.

Turn left on 2nd Avenue. Take right at Nicollet Avenue.

From Hwy 12 West:

Follow downtown exit to 12th Street. Turn right on 12th Street

to LaSalle Avenue. & 394: Turn right on LaSalle Avenue.

Continue on LaSalle for two blocks to Grant Street.

Turn left on Grant Street. Go one block to Nicollet Avenue.

Turn left on Nicollet Avenue.

From Hwy 55:

Follow Hiawatha (becomes 7th Street) to 2nd Avenue.

Take a left at 2nd Avenue. (Hiawatha Ave.)

Turn right at Nicollet Avenue.

You can find a map to the hotel on the Hyatt website at:

<http://minneapolis.hyatt.com/property/areaguide/maps/index.jhtml>

There are a total of 800 spaces at the lot next to the Hyatt (first come-first served). The price is \$12/day (early bird price of \$6.50 exit by 8pm). There is also a convention center lot where parking is \$9.

Meeting Registration

You will find further on in this newsletter a form to register for the annual meeting. You can fill this in and mail it to the SHOT office with your payment by check or with your credit card information.

Please mail this to:

SHOT Office/Cynthia Bennet - SHOT Registration
Department of History
618 Ross Hall
Iowa State University
Ames, Iowa 50011

You can also send in this form **via fax** to:

(515) 294-6390

(Please put "for SHOT" on your cover page.)

We will also have secure online registration on the SHOT website annual meeting page:

http://www.shot.jhu.edu/Annual_Meeting/Annual_Meeting_Main_Page.htm

The SHOT Office will send you confirmation of your registration.

Please note that the deadline for early registration rates is October 3, 2005.

Presenters: in order to guarantee your spot on the program, we must receive your registration by October 3, 2005.

SHOT Website Annual Meeting Page

Our main SHOT website: (<http://www.shot.jhu.edu>) has a button connecting you to the SHOT annual meeting webpage:

http://www.shot.jhu.edu/Annual_Meeting/Annual_Meeting_Main_Page.htm

This page contains links to the program (with paper and session abstracts where available), the conference schedule, registration information, plus details on SIG (Special Interest Group) meetings, receptions, the SHOT business meeting, SHOT tours, etc. We have also added a special page with information for graduate students. You can also find details on hotel reservations and local information here. We will be updating the annual meeting page frequently with additional information, so please check back at regular intervals.

Visiting Minneapolis

Additional notes on local information and attractions by Jole Shackelford:

The 2005 co-located meetings of SHOT and HSS will be held at the Hyatt Regency in downtown Minneapolis, within easy walking distance of numerous fine restaurants, shopping venues, and cultural attractions.

Early November is a transitional season; the average temperature for October is 48.8 degrees Fahrenheit (average high is 58.6), but for November it is 32.5 (high 40.1), so check the latest forecasts and dress for change!

The weather-averse can navigate much of the immediate downtown area indoors, at second story level, via the network of skyways connecting to the Hyatt. For those who prefer the open air, the hotel is placed at the south end of Nicollet Mall, a pedestrian mall running through the core of the downtown, and also at the end of a greenway funneling downtown strollers to nearby Loring Park and the adjacent sculpture garden and Walker Art Center. Unfortunately, there is no concert scheduled at Orchestra Hall for our meeting, but the Dakota, just a few blocks away, offers jazz, good food, and excellent local beers and ales on tap. Minneapolis also has a fairly vibrant theater scene, although early November is not the best season for it (The Guthrie, for example, is between plays during our meeting). Fans should investigate the web for offerings; last minute and discount tickets are often available at the TC Tix outlet at Marshall Field's on Nicollet Mall.

For those who wish to wander further, the historic milling district along both sides of the Mississippi River beckons. On the near bank, the Minnesota Historical Society's new Mill City Museum preserves the remnants of one of the many flour mills that conferred the token "mill city" on Minneapolis and provides an instructive overview of the technology of milling. Several bridges cross the river at this point, overlooking the dam and lock complex that obscure St. Anthony Falls. The water power and barrier to upstream river traffic at these falls made "St. Anthony" an ideal place for the milling of wheat and lumber for shipment down river, and the burgeoning town was eventually renamed Minneapolis, a combination of Greek and Dakota meaning "City of the Waters." If the weather is fine, cross the river on the graceful "stone arch bridge" built by railroad magnate J.J. Hill – now for pedestrians and bicycles – to St. Anthony Main, where more fine restaurants and bars occupy the machine shops that served the old Pillsbury mills.

Or if you prefer not to walk, metro transit buses serving Minneapolis and its twin city, St. Paul, run down the middle of the pedestrian mall. A \$6 transit pass is good for the whole day and affords relatively convenient access to Uptown, where the young, the artists, and the hip and aware congregate, to the Minneapolis Institute of Arts, or to the University of Minnesota. Our new light rail connects downtown Minneapolis to the airport and further to the Mall of

America, for those who enjoy extreme shopping, want to number among the 42.5 million annual visitors, or just have a yen to see what more than 500 stores, 70 restaurants, 14 movies screens, an aquarium, and an amusement park look like under one roof.

But if you are like many academics, you will not want to waste the entirety of your trip on frivolity, conviviality, and entertainment, and will wish to supplement scholarly discussion with local research opportunities! The University of Minnesota, besides serving 50,000 students, houses several important collections that are accessible during normal hours on weekdays, so plan to do this on Thursday or Friday. Among these, of special interest to historians of science, technology, and medicine are the Wangenstein Library (medicine, biology), the James Ford Bell Library (exploration and colonization), Special Collections and Rare Books of the Wilson Library, the Charles Babbage Institute, and the Social Welfare History Archives. For holdings, consult the University of Minnesota Libraries system catalogue, Lumina. Historians of electricity, electrotherapeutics, and related subjects will want to visit the Bakken Library and Museum.

For additional information about visiting Minneapolis and sightseeing, please check the websites:

<http://www.visit-minneapolis.com/>
<http://neighborhoods.minneapolis.org/>
<http://www.minneapolis-riverfront.com/>
<http://www.minnesotamonthly.com/>

and for maps:

<http://www.minneapolis.org/travelinfo/maps.asp>

Information courtesy of the History of Science Society

PLEASE CONTINUE TO CHECK THE SHOT

WEBSITE FOR UPDATES RELATED TO THE

ANNUAL MEETING

www.shot.jhu.edu

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|----------------------------|
| PRELIMINARY PROGRAM |
|----------------------------|

THURSDAY, NOVEMBER 3:**5:30 - 7:30 p.m.:**

SHOT-HSS Plenary Session:
Speakers: TBA

7:30 - 9:00 p.m.:

SHOT-HSS Opening Reception

FRIDAY, NOVEMBER 4:**7:30 - 8:45 a.m.:****SIG meetings:**

Albatrosses
Tensions of Europe
new SIG on Strengthening Relations Between SHOT
and the Engineering Community

FRIDAY, NOVEMBER 4:**9:00 – 10:30 a.m.:****1. Philosophy of Technology: Forty Years and Counting**

Organizer: Carl Mitcham, Colorado School of Mines, USA
Chair: Carl Mitcham, Colorado School of Mines, USA
Comment: Audience

Topi Heikkerö, University of Helsinki, Finland,
"Philosophy of Technology in Scandinavia: Coming in from the Cold"

Martijntje W. Smits, Technical University Eindhoven, The Netherlands, "Philosophy of Technology in the Netherlands: Making a Mark"

Juan Bautista Bengoetxea, Colorado School of

Mines, USA, "Philosophy of Technology in Spain: Between Analytic Approaches and STS"

2. Serve Yourself: Reconfiguring the Retail Experience, 1900-1980

Chair: TBA

Comment: Tracy Deutsch, University of Minnesota, USA

Mark Samber, Independent Scholar, "The Technological Deconstruction of Social Systems: The Rising Significance of Self-Service Technology in Retail"

Finn Arne Jørgensen, Norwegian University of Science and Technology, Norway "From Rational Backroom Handling to Helping the World Recycle: Defining Users of Tomra's Reverse Vending Machines" (Robinson Prize Candidate)

Meredith TenHoor, Princeton University, USA, "Eating by Machinery: Space, Gender and Pleasure in the Automat, 1900-1965" (Robinson Prize Candidate)

3. Resourceful Science and Mineral Resources: The Geology and Technology of American Mining

Organizer: Jeremy Vetter, University of Pennsylvania, USA

Chair: TBA

Comment: Fredric L. Quivik, Quivik Consulting Historian, Inc.

Jeremy Vetter, University of Pennsylvania, "Knowledge and the Mining Business: The Technological Agenda of the Colorado Scientific Society"

Peter Shulman, MIT, USA "Alaska: Infinite Coal Mine of the Imperial Imagination" (Robinson Prize Candidate)

Paul Lucier, Independent Scholar, USA, "From Courtroom Geology to Corporate R&D: Anaconda Copper and the Origins of Science-Based Mining"

4. Global Circulation of Knowledge in the Solid-State Electronics Industry

Organizer: Hyungsub Choi, Johns Hopkins University, USA

Chair: David Hounshell, Carnegie Mellon University,

USA

Comment: Paul Ceruzzi, Smithsonian Institution, USA

Mila Davids, Technical University Eindhoven, The Netherlands, “Solid-State Technology and International Knowledge Transfer: The Case of Philips”

Hyungsub Choi, Johns Hopkins University, USA, “Circulation of Knowledge in Solid-State Electronics: A Perspective from the U.S.”

Takushi Ootani, Kibi International University, Japan, “The Introduction and Development of Transistor Technology in Japan, 1948-1965”

5. The Creation of Automobile-Oriented Landscapes in the 20th Century

Organizer: Libbie Freed, University of Wisconsin, USA

Chair: TBA

Comment: Thomas Zeller, University of Maryland at College Park, USA

Christopher Wells, Macalester College, USA
“Building for Traffic: Engineers, “Sound” Roads, and the Path to Federal Aid”

Mathieu Flonneau, Université Paris I Panthéon-Sorbonne, France “The Construction of Car Dependence in the Parisian Area After the Second World War: Myth and Realities of ‘Americanization’”

Libbie Freed, University of Wisconsin, USA,
“Roads and the Transformation of Landscapes in Colonial French Central Africa”

6. Technology’s Middle Ground: Exploring Class, Skill and Technological Change through the Repair of Everyday Things

Organizer: Kevin Borg, James Madison University, USA

Chair: Douglas Harper, Duquesne University, USA

Comment: Frank Wilson, Stanford University, USA

Kevin Borg, James Madison University, USA “The

Diagnostic Fix: Computerization’s Impact in the Auto Repair Shop”

Maggie Dennis, Smithsonian Institution, Lemelson Center, USA “Reinventing Accuracy: Watch Repair in the Electronic Age”

Mark Thomson, Australasian Institute of Backyard Studies, Australia, “Curiosity, Memory and Fencing Wire: The Three Essential Components Needed to Fix Just About Anything”

FRIDAY, NOVEMBER 4:

10:45 a.m. – 12:15 p.m.:

7. Dis/Embodying Labor

Chair: TBA

Comment: Arwen Mohun, University of Delaware, USA

Diana Covell, University of Sydney, Australia “Women Versus BHP: Australian Women in Steel: A Comparative Study” (Robinson Prize Candidate)

Marie Hicks, Duke University, USA “Women’s Work and the Computerization of British Offices after the Second World War ” (Robinson Prize Candidate)

Sarah Rose, University of Illinois at Chicago, USA, “Creating the Disabled: Mechanization, Industrial Accidents, and Ideal Workers, 1900-1925” (Robinson Prize Candidate)

8. Use and Usability in Personal Computing: International Perspectives

Organizer: Thomas Haigh, University of Wisconsin, USA

Chair: Paul Ceruzzi, Smithsonian Institution, USA

Comment: Thomas Haigh, University of Wisconsin, USA

James Sumner, University of Manchester, UK, “The Mighty Microcosm: Home Computers and User Identity in Britain, 1980-1990”

Martin Campbell-Kelly, University of Warwick, UK
“Number Crunching without Programming: The Evolution of Spreadsheet Usability”

Frank Veraart, Technical University of Eindhoven, The Netherlands, "The Introduction and Use of Personal Computers in the Printing and Publishing Industries in the Netherlands, 1975-1990"

9. Works in Progress: Political Tools of Unity and Division

Chair: Hans-Joachim Braun, Helmut Schmidt Universitaet, Hamburg, Germany
Comment: Audience

Seung-joon Lee, UC Berkeley, USA, "Rice, Science, and Power: the World Rice Market and the Chinese Republican State, 1907-1937" (Robinson Prize Candidate)

Vincent Lagendijk, Eindhoven University of Technology, The Netherlands, "High voltages, Low Tensions: The Interconnections of Eastern and Western European Electricity Grids during the Cold War" (Robinson Prize Candidate)

Gustav Sjöblom, University of Cambridge, UK, "Between Flexibility and Co-ordination: British and German policies on the Commercial Motor Vehicle between the World Wars" (Robinson Prize Candidate)

10. The Logic of Non-Adopters: Multinational Perspectives on High and Low-Tech

Chair: TBA
Comment: Eric Schatzberg, University of Wisconsin, USA

Stacy Holden, Purdue University, USA, "Modernization in the Islamic World: The Mechanization of Flour Production in Morocco, 1878-1912" (Robinson Prize Candidate)

Yasushi Sato, University of Tokyo, Japan, "Where Systems Engineering Does Not Work: A Cross-Cultural Perspective"

Siger Zeischka, Free University Amsterdam, The Netherlands, "Social Elements in the Debate on Dutch Technological Backwardness: New Perspectives from local Drainage History, 1700-1850"

11. Designing Technologies

Chair: TBA
Comment: TBA

Julie Wosk, Maritime College, SUNY, USA, "Designing Electronics For Women and Men"

Sarah Johnson, University of Hertfordshire, UK, "Transcending Gender: Women Industrial Designers in the late 19th Century American Factory"

Bruce Wright, Industrial Fabrics Association, USA, "International: Folding Money: The Design History of Folding Camp Furniture"

12. System, Infrastructure, Network: Metaphor as Method in the History of Technology

Organizer: Richard John, University of Illinois at Chicago, USA
Chair: JoAnne Yates, Sloan School of Management, MIT, USA
Comment: Thomas Hughes, University of Pennsylvania, USA

Eric van der Vleuten, Technical University Eindhoven, The Netherlands, "Europe's System Builders"

Arne Kaijser, Royal Institute of Technology, Sweden, "Infrastructure and Infrasystems: Useful Concepts for Comparative Inquiry?"

Richard John, University of Illinois at Chicago, USA, "From System to Network: Rethinking the History of American Telecommunications"

FRIDAY, NOVEMBER 4:

12:30 - 1:30 p.m.:

SIG meetings:

Military Technology SIG
WITH (Women in Technological History)

FRIDAY, NOVEMBER 4:**1:45 – 3:45 p.m.:****13. The Edible Industrial: Food as a Technology in the Twentieth Century**

Organizer: Jennifer Smith, MIT, USA
Chair: Roger Horowitz, Hagley Library, USA
Comment: Roger Horowitz, Hagley Library, USA

Shane Hamilton, University of Georgia, USA
 “Supermarket USA: The Technology, Ecology, and Politics of Industrial Food Distribution in the Cold War”

John Varty, McGill University, Canada, “On Wonder; Or, Why Mass-Produced Bread Looks a Little Like Bauhaus Furniture”

Jennifer Smith, MIT, USA “The Taste of Modernity: Pork, Processed Food and the Rise of an Industrial Diet in the Soviet Union, 1945-1955”

14. Materials Matter: The Role of Materials in Technoscience

Organizer: Christophe Lecuyer, Chemical Heritage Foundation, USA
Chair: John Kenly Smith, Lehigh University, USA
Comment: Philip Scranton, Rutgers University, USA

Christophe Lecuyer and David Brock, Chemical Heritage Foundation, USA, “The Materiality of Microelectronics”

Glen Asner, NASA and Gaurab Bhardwaj, Babson College, USA, “The History of Thermoelectric Materials Research: 180 Years of Moving, Anchored Research”

Cyrus Mody, Chemical Heritage Foundation, USA and Michael Lynch, Cornell University, USA “Test Objects and the Materials of Community”

15. Technology and the State in Latin America

Organizer: Margaret Power, Illinois Institute of Technology, USA
Chair: Gregory Downey, University of Wisconsin, Madison, USA
Comment: Gregory Downey, University of Wisconsin, Madison, USA

Lina Del Castillo, University of Miami, USA, “The Science of Nation Building: The Construction of Colombian Territories Through the Production of Scientific Knowledge, 1830-1903” (Robinson Prize Candidate)

Eden Medina, Indiana University, USA, “Making the “Ugliest Automobile in History”: Technology, Ideology, and the Citroen Yagán”

Margaret Power, Illinois Institute of Technology, USA
 “The Technologies and Politics of Birth Control in Chile in the 1960s”

16. Challenging SCOT

Chair: TBA
Comment: Park Doing, Cornell University, USA

Allan Dafoe, Cornell University, USA, “Theoretical Reconciliation: Selectionism in the Social Construction of Technology and the Diffusion of (Military) Innovations”

Robert Bud, The Science Museum, UK, “Brands, Baudrillard and SCOT: The Case Study of ‘penicillin’”

Darrin Durant, University of Toronto, Canada, “Why Artifacts Don’t Have Politics: Machinic & Group Action in the Nuclear Debate”

17. Roundtable: At the Intersection of Environmental History and the History of Technology: Themes, Methods, and Directions

Organizer: Hugh Gorman, Michigan Technological University, USA
Chair: Hugh Gorman, Michigan Technological University, USA
Comment: Audience

John Staudenmaier SJ, University of Detroit Mercy, USA

Edmund Russell, University of Virginia, USA

Marty Reuss, U.S. Army Corps of Engineers, USA

18. Intellectual Cultures and the Meaning of Technology

Organizer: Matthew Wisnioski, Princeton University/Washington University in St. Louis, USA

Chair: Amy Slaton, Drexel University, USA

Comment: Langdon Winner, Rensselaer Polytechnic Institute, USA

Adelheid Voskuhl, Cornell University, USA, "Technology and Decline: Ideas on a Philosophy of Technology in the Conservative Revolution of the Weimar Republic"

Matthew Wisnioski, Princeton University/Washington University in St. Louis, USA "Keeping Pace" in 1960s America: Value and Agency in the Intellectual Crisis of Technology"

Rayvon Fouché, Rensselaer Polytechnic Institute, USA, "Black Intellectuals and the Technological Politics of African Decolonization"

FRIDAY, NOVEMBER 4:

4:00 – 6:00 p.m.:

19. Politics of Beverage Production: Milk, Beer, Rum

Chair: Richard Rosenbloom, Harvard Business School

Comment: Michael Kucher, University of Washington, USA

Gustavo Gutierrez, Iowa State University, USA, "Rum Production in Early America: A Pioneer Technology in the Transition from Subsistence to Industrial Technology"

Micah Rueber, Mississippi State University, USA, "Milking Time: Dairy Farms, Expertise, and Technological Change" (Robinson Prize Candidate)

Richard Yntema, Otterbein College, USA, "Markets, Technology, Politics and Resistance to Technological Change in Holland's 16th Century Brewing Industry"

20. Roundtable: The Central Role of Peripheral Histories of Science And Technology

Organizer: Maria Paula Diogo, New University of Lisbon, Portugal

Chair: Daryl Hafter, Eastern Michigan University, USA

Comment: Audience

Maria Paula Diogo, Faculty of Science and Technology/New University of Lisbon, Portugal and Ana Matos, University of Évora and Tiago Saraiva, Portugal: "Bringing the Centre to the Periphery: Portuguese Engineers and Their Travels of Learning"

Aristotle Tympas, University of Athens, Greece, "Ancient Greek History in a Modern Engineering Journal: Elaborating on the Centrality of Technological Determinism by Considering Peripheral Versions"

Carles Puig-Pla, Francesc X. Barca, Antoni Roca-Rosell and Guillermo Lusa, Universitat Politècnica de Catalunya, Spain, "The Industrial School of Barcelona (1904): a Turning Point for Engineering in Catalonia"

Irina Gouzévitch, /EHESS, France and Dmitri Gouzevitch, /EHESS, France, "Mediative Action of The Engineer Augustin Betancourt: a Peripheric Story of European Dimension in the Late 18th and Early 19th Century"

21. Radio Users

Organizer: Timothy Stoneman, Georgia Tech, USA

Chair: Martin Collins, Smithsonian Institution, USA

Comment: Trevor Pinch, Cornell University, USA

Chen-Pang Yeang, MIT, USA, "Between Users and Developers: Amateurs and Radio Technology in the Early Twentieth Century" (Robinson Prize Candidate)

John Wedge, Eastern Illinois University, USA, "Echoes in the Night: The Tuning of Users in the Radio Age"

Timothy Stoneman, Georgia Tech, USA "Using Radio to Win Souls: American Missionary

Broadcasters and Their Captive Audiences, 1931-1975”

Christina Dunbar-Hester, Cornell University, USA, “Activism as Use: Publics and Experts Negotiate Low Power FM Broadcasting” (Robinson Prize Candidate)

22. Technology Goes Public: Australia, Norway, and the U.S.

Chair: TBA

Comment: Joyce Bedi, Smithsonian Institution, USA

Kristin Gjerde, Norwegian Petroleum Museum, Norway, “Ekofisk Industrial Heritage - How to Document a Large Technical-Industrial Monument at Sea”

Amy Cleveland, Friends of the Astor House Museum and Clear Creek History Park, USA, “The Fight for First Flight: Using Museum Theater to Address Ethics and Controversy” (Robinson Prize Candidate)

Elouise Oyzon, Rochester Institute of Technology, USA, “What the Tech?”

23. Questionable Ethics: Concentration Camps, Army Labs, and the Environment as Testing Grounds

Chair: TBA

Comment: Hugh Gorman, Michigan Technological University, USA

Jennifer Alexander, University of Minnesota, USA, “Building the K-Ration: Eating and Starving for the Second World War”

Anne Sudrow, Technical University of Munich, USA, “Measuring the Use-Value”: The Beginnings of Comparative Consumer Good Tests in National Socialist Germany”

Edward Lorenz, Alma College, USA, “What Did They Know and When Did They Know It: Early Knowledge of Environmental Contamination”

24. Producing Food and Consumers: Historical Perspective on the Food Industry

Organizer: Gabriella Petrick, University of Delaware, USA

Chair: Ruth Schwartz Cowan, University of Pennsylvania, USA

Comment: Audience

Kolleen Guy, University of Texas, San Antonio, USA, “Making Food French: Marketing Technology and the Making of French Cuisine in the (19th and 20th) Nineteenth and Twentieth Centuries”

Gabriella Petrick, University of Delaware, USA, “The Industrialization of Taste: Food Habits and Technological Change in the United States, 1900-1970”

Gerard Fitzgerald, Dibner Institute, MIT, USA, “The Handmaiden of Industry: The Development of Industrial Microbiology in the U.S. Food Industry, 1900-1950”

FRIDAY, NOVEMBER 4:

7:00 – 10:00 p.m.:

SHOT reception, Science Museum of Minnesota, in connection with the Lemelson Center exhibit “Inventions at Play”

SATURDAY, NOVEMBER 5:

7:30 - 8:45 a.m.:

SIG meetings:

Envirotech
Jovians/Mercurians
Graduate Students and International Scholars breakfast

SATURDAY, NOVEMBER 5:

9:00 – 10:00 a.m.:

SHOT special sessions: TBA

SATURDAY, NOVEMBER 5:**10: 15 – 11:45 a.m.:****25. Artful Engineering***Chair:* TBA*Comment:* TBA

Katherine Pandora, University of Oklahoma, USA,
 “Redesigning the Engineering Mind: The
 Revelations of the Arcturus IV Science Fiction
 Project at Mid-century MIT”

Vincent Willoughby, Idaho State University, USA,
 “Optical Telegraphs and Romantic Literature”

Tom Crouch, NASM, Smithsonian Institution, USA,
 “Jumping the Gun of Propriety: Space Flight
 Discussions in the American Rocket Society, 1945-
 1955”

26. Worlds’ Fairs: Amusing Nations, Securing Nations*Chair:* TBA*Comment:* Joe Corn, Stanford University, USA

Julie Brown, Independent Scholar, USA,
 “Protecting the Public: Disease and Crime at
 International Expositions in the United States”

Dorothy Barenscott, University of British
 Columbia, Canada, “Mobilizing the Cinematic
 Gaze: Fin de Siècle Film, Cultural Displacement,
 and the Politics of New Technologies of Vision on
 the Periphery of Europe” (Robinson Prize
 Candidate)

Matthew Sneddon, University of Washington, USA,
 “Heroic or Prosaic? History, Heritage, and
 Exhibitions of American Technology, 1876-1933”

27. Provincializing Western Definitions of Technology*Chair:* TBA*Comment:* Bryan Pfaffenberger, University of Virginia, USA

Lauren Nauta, University of Pennsylvania, USA,
 “Left-Overs of the Gods: The Role of Bovine Milk
 and Colostrum Offerings in Autumnal Fever
 Therapeutics in the Punjab Plains, 1870-1930”
 (Robinson Prize Candidate)

Zoran Ergarac, School of Machine Engineering,
 Prijedor, Bosnia and Herzegovina, : “Tradition For
 Everyday: Contrasting Realities of The Food Industry
 In Serbia” (Robinson Prize Candidate)

Clapperton Mavhunga, University of Michigan,
 USA/WISER, South Africa, “Firearms. Tsetse Fly.
 Animals. Humans - Technopathogens: How Each’s
 Presence/Absence Has Mattered In The Great
 Limpopo Transfrontier Area’s History”

28. Engineering New Nations: American Engineers and Asia after 1945*Organizer:* John DiMoia, Princeton University, USA*Chair:* Bill Leslie, Johns Hopkins University, USA*Comment:* Bill Leslie, Johns Hopkins University, USA

John DiMoia, Princeton University, USA, "From
 Trucks to Televisions: South Korea's Chaebol, MAP
 (Military Assistance Program), and Hyundai, 1945-
 1975"

Daniel Klingensmith, Maryville College, USA,
 “Managing Water and Managing the "Orient””

David Biggs, University of California-Riverside,
 USA, “Reclamation Nations: The US Bureau of
 Reclamation's Role in Nation-Building on the Lower
 Mekong, 1945-1972”

29. Controlling Birth: The Technologies of Planning Parenthood*Organizers:* Ruth Cowan, University of Pennsylvania, USA; Joan Rothschild, Center for Human Environments, CUNY, USA*Chair:* Elizabeth Watkins, University of California in San Francisco, USA*Comment:* Leslie Reagan, University of Illinois Urbana-Champaign, USA

Rene Almeling, University of California at Los Angeles, USA, "A Comparative History of Egg and Sperm Donation" (Robinson Prize Candidate)

Tanfer Emin-Tunc, SUNY at Stony Brook, USA, "Beyond the First Trimester: Technological Change in Mid to Late Term Pregnancy Termination" (Robinson Prize Candidate)

Rebecca Kluchin, Carnegie Mellon University, USA, "Revolutionizing the Technology of Female Sterilization: The Development of Endoscopic Female Sterilization Techniques and the Legitimization of Permanent Contraception in America, 1965-1980" (Robinson Prize Candidate)

30. Engaging Engineers in the Classroom and Beyond

Organizer: Ann Johnson, University of South Carolina, USA

Chair: TBA

Comment: Rosalind Williams, MIT, USA

Bruce Seely, Michigan Technological University, USA, "Historians of Technology and Nanotechnology"

Ann Johnson, University of South Carolina, USA, "Historical Sensibility and Engineering Ethics"

Sarah Pfatteicher, University of Wisconsin, USA, "Lessons of Terrorism: Engineering Education for the

21st Century"

SATURDAY, NOVEMBER 5:

12:00 - 1:00 p.m.:

SIG meetings:

SIG on Computers, Information, and Society
TEMSIG (Technology Museums SIG)

SATURDAY, NOVEMBER 5:

1:15 – 3:15 p.m.:

31. Roundtable: Ethnic Studies and the History of Technology

Organizer: Julia GoodFox, University of Kansas, USA

Chair: Julia GoodFox, University of Kansas, USA

Comment: Audience

Sylvia Hood Washington, Northwestern University/DePaul University, USA,
John Jackson, Jr., University of Colorado, USA,
Clara Sue Kidwell, University of Oklahoma, USA,

32. Everyday Technology in Transition: Subways, Bicycles and Railroads, 1870-1960

Organizer: Betsy Mendelsohn, University of Maryland College Park, USA

Chair: TBA

Comment: Zachary Schrag, George Mason University, USA

Betsy Mendelsohn, University of Maryland, College Park, USA, "Bicycles on the Road, 1870-1900: Litigation and Legislation Shaping New Transportation Technology"

Terri Lonier, NYU, USA "Networks of Transport, Networks of Influence: Alfred Ely Beach's Pneumatic Subway" (Robinson Prize Candidate)

Takashi Nishiyama, Dibner Institute, MIT, USA, "War, Peace, and Non-Weapon Technology in Modern Japan: The Impact of the Culture of Defeat on Railroad Car Construction, 1880s-1950s" (Robinson Prize Candidate)

Ian Petrie, Saint Joseph's University, USA, "We recommend this vehicle to young Bengal": Bicycles and the Objects of Modernity in India, 1900-1960

33. "The Far Away Near By": Remote Sensing

Chair: TBA

Comment: TBA

John Cloud, NOAA, USA, "What's That Sound?-- The Historiography and Uncertain Memory of Positioning at Sea by Underwater Acoustics"

Etienne Benson, MIT, USA, "Wild Animals and Radio Landscapes: Wildlife Telemetry at the Cedar Creek Natural History Area, 1960-1980" (Robinson Prize Candidate)

Amber Musser, Harvard University, USA, "Representing Pleasure"

34. The Politics of Technological Internationalism

Chair: TBA

Comment: Kathryn Steen, Drexel University, USA

Waqar Zaidi, Imperial College, London, "Proposals for the International Air Police: A Case of Interwar Technological Internationalism" (Robinson Prize Candidate)

Frank Schipper, Technical University of Eindhoven, The Netherlands, "The Drive for Peace? Road Planning and the European Project during the Interbellum" (Robinson Prize Candidate)

Alexander Badenoch, Technical University of Eindhoven, The Netherlands, "Touring Between War and Peace: Ostend and the Transcontinental Motorway Plan 1930-1950"

35. Engineering Failure

Chair: TBA

Comment: TBA

Greg Siegel, University of North Carolina at Chapel Hill, USA, "Socializing and Scientizing the Technological Accident"

Matthew Eisler, University of Alberta, Canada "Bringing It Down to Earth: The U.S. Army, NASA, and the Politics of Fuel Cell Research and Development, 1959-1970" (Robinson Prize Candidate)
Miwao Matsumoto, University of Tokyo, Japan, "The

Complex Relationship between Success and Failure in the Development Trajectory of a War Technology"

36. No Nature: Negotiating the Intersections of the Histories of Science and Technology

Organizer: Michael Egan, McMaster University, Canada

Chair: Joy Parr, University of Western Ontario, Canada

Comment: Joy Parr, University of Western Ontario, Canada

Michael Egan, McMaster University, Canada : "The Alchemy of Nature: Revisiting the Machine in the Garden" (Robinson Prize Candidate)

David Nye, Warwick University, UK, "Re-thinking Robinson Crusoe: Constructions of Nature"

Benjamin Cohen, Virginia Tech, USA, "Seeing Like the State of Virginia: Nature and the Technological Mediation of the Old Dominion"

SATURDAY, NOVEMBER 5:

3:30 – 5:30 p.m.:

37. Technology and Privatization

Organizer: Ian Slater, York University, Canada

Chair: TBA

Comment: Audience

Sally Hughes, Bancroft Library, University of California, USA, "Cetus: A Scientific Private Enterprise"

Eric Vettel, University of California, Berkeley, USA "Privatizing Science at Genentech"

Andrew Russell, Johns Hopkins University, USA, "'Market Incentives May Already be Sufficient': Coordination Mechanisms for Cellular Standards" (Robinson Prize Candidate)

Ian Slater, York University, Canada, “Global Developments in the Privatization of High-Technology Industries”

38. Stories of Magic and Momentum: Myths in the History of Science, Technology, and the Environment

Organizer: Mikael Hard, Technical University, Darmstadt, Germany

Chair: John Staudenmaier, SJ, University of Detroit Mercy, USA

Comment: Tom Misa, Illinois Institute of Technology, USA

Christian Kehrt, University of Technology Darmstadt, Germany, “Heroes and Knights: On the Mythology of Aeroplanes and Pilots” (Robinson Prize Candidate)

Mark Walker, Union College, USA, “The Myths Surrounding Science, Technology, and Medicine under Hitler”

Sabine Höhler, Hamburg University of Economics and Politics, Germany, “Spaceship Earth:” Myth as a Theme for Environmental History”

Mikael Hard, Technical University Darmstadt, Germany, “David against Goliath: Myths in the History of Information Technology”

39. Yankee Go Home, Yankee Come In: Japanese Air Conditioning, Brazilian Cars, Indian Computing 1945-1985

Chair: Jennifer Bannister, Independent Scholar

Comment: Paul Josephson, Colby College, USA

Joel Wolfe, Rice University, USA, “Are Cars Democratic?: Brazilian Modernity and the Politics of Objects”

Ross Bassett, North Carolina State University, USA, “Facing Two Ways: The Indian Institute of Technology Kanpur, American Technical Assistance, and the Indian Computing Community, 1961-1980”

Masafumi Miyajima, Daikin Air-conditioning R&D Laboratory, Ltd., Japan, “A Study on Japanese Refrigerating and Air-conditioning Industry Rebuilding during Military Occupation by the United States, 1945-1952”

40. Nota Bene: SHOT Meets Theory

Chair: TBA

Comment: Steve Usselman, Georgia Tech, USA

Mark Russell, Virginia Tech, USA, “Where Historiography Meets Applied History: ‘Geneological’ Methods and the Articulation of Knowledge Structures in the Search for Missing World War Two Aircraft” (Robinson Prize Candidate)

W. Bernard Carlson, University of Virginia, USA, “Nikola Tesla and the Tools of Persuasion: Rethinking the Role of Agency in the History of Technology”

Srinivas Yenda, Indian Institute of Technology, India, “Alternative Historiography: A Tool for Construction of Colonised History” (Robinson Prize Candidate)

41. Historiographical Tools: How Machines Help Humans Shape Meaning

Organizer: Bernadette Longo, University of Minnesota, USA

Chair: David Grier, George Washington University, USA

Comment: Audience

Amy Propen, University of Minnesota, USA, “Geographic Information Systems: Historicization-Meets-Visualization; STS-Meets-Semiotics” (Robinson Prize Candidate)

Bernadette Longo, University of Minnesota, USA, “Robots and the Transfer of Computer Technology to Civilian Life”

Elizabeth Shea, Northeastern University, USA, “Genetic Resistance: Writing Histories in Opposition to Globalization”

Wendy Winn, University of Minnesota, USA, “Conveying Scientific Knowledge Through

Illustration: A Historical Study of Visual Representation in Ornithology”

42. Touch and Control: Human-Machine Interfaces as Co(a)gents in 20th-Century Consumption Technologies

Organizers: Heike Weber, Technical University Munich, Germany, Martina Heßler, RWTH Aachen, Germany, and Gwen Bingle, Technical University Munich, Germany

Chair: Ulrich Wengenroth, Technical University Munich, Germany

Comment: Edward Tenner, Lemelson Center, NMAH, USA

Heike Weber, Technical University Munich, Germany, “At Your Fingertip! - Buttons and Operating Controls from the Mechanical to the Digital Ages”

Stefan Schmitt, Technical University Munich/ ZEITWissen Hamburg, Germany, “A Genesis of (alternative) User Interfaces in Video Gaming Controllers” (Robinson Prize Candidate)

Gwen Bingle, Technical University Munich, Germany, “Skinterfaces: Sensuous Vectors in the Promotion of Industrial Food and Cosmetics”

Martina Heßler, RWTH Aachen, Germany, ““Smart Textiles” – Body and Clothes as Interfaces”

SATURDAY, NOVEMBER 5:

5:45 – 6:30 p.m.:

SHOT Business Meeting

SATURDAY, NOVEMBER 5:

7:00 – p.m.:

SHOT Awards Banquet

SUNDAY, NOVEMBER 6:

9:15 – 10:45 a.m.:

43. Capturing the Invisible: Sniffing, Sending, Snoring

Chair: TBA

Comment: Rachel Maines, Independent Scholar

Thomas Staley, Virginia Tech, USA, “Technologies of Smell in the 18th and 19th Centuries: The Measurement, Production, and Use of Odor” (Robinson Prize Candidate)

John McVey, Montserrat College of Art, USA, “Thesauruses, Messages and Mundane Telegraphy 1870-1930”

Matthew Wolf-Meyer, University of Minnesota, USA, “Medical Abstractions, Biopolitics, Matters of Concern, and Sleep in American Life”

44. Path Dependencies?

Chair: Janet Abbate, Virginia Institute of Technology, National Capital Region, USA

Comment: Steve Crandall, Notre Dame College, USA

William McMillan, Eastern Michigan University, USA, “The Standard Register Company's Developments in Systems Analysis during the Early 1940s in Anticipation of Automated Data Processing”

Steven Walton, Penn State, USA, “The Military-Industrial-Academic-Complex 80 years too early: the U.S. Navy, Torpedoes, and Inventors, 1865-1890”

Michael Geselowitz, IEEE History Center, USA, “Tinkerers Ever to Chance: Computation and The Rise of Probabilistic Thinking”

45. Users as Agents*Chair:* TBA*Comment:* Ron Kline, Cornell University, USA

Kenji Ito, RCAST, The University of Tokyo, Japan, "When Users Become Makers: Use and Production of Industrial Robots in Japan, 1970-1990"

Christopher Neumaier, Technical University Munich, Germany, "Rationality Constructs. Understanding the Diametrically Opposed Acceptance of Diesel Automobiles in Germany and the United States"

Dolores Jørgenson, University of Virginia, USA, "Controlling Technology by Controlling Users in Order to Control the Environment in Medieval Coventry" (Robinson Prize Candidate)

46. Technology and Representation in Airpower*Organizer:* John Terino, SAASS, USA*Chair:* Alex Roland, Duke University, USA*Comment:* Susan Linder, University of Virginia, USA

Timothy Schultz, Duke University, USA, "Human Limitations on High-Performance Aviation"

Stephen Chiabotti, School of Advanced Air and Space Studies, USA, "Social Construction of a Primary Training Aircraft"

John Terino, School of Advanced Air and Space Studies, USA, "Technology to Represent and Evaluate the Effect of Modern Airpower"

47. Making Room for Technology*Chair:* TBA*Comment:* Molly Berger, Case Western Reserve, USA

Elizabeth Cromley, Northeastern University, USA, "The Spatial Implications of Food Technologies"

Alison Hoagland, Michigan Technological University, USA "Negotiating Convenience: Utilities in Working-Class Houses in Michigan's Copper Country"

Els De Vos, University of Leuven, Belgium, "Room for the Automobile: A Struggle for an Appropriate Place in the Belgian Single-Family Home"

Ana Maria Kapelus Poppi, University of Wisconsin-Oshkosh, USA, "Political Populism and the Hope for Scientific Progressin??? post-revolutionary Mexico"

48. Creating the Scientific Persona: Identity, Media & Politics*Organizer:* Jennifer Ferng, MIT, USA*Chair:* Amy Bix, Iowa State University, USA*Comment:* Miriam Levin, Case Western Reserve University, USA

Kieran Downes, MIT, USA, "Actually it *is* Rocket Science: the Military, the Media, and the Americanization of Wernher von Braun" (Robinson Prize Candidate)

Jennifer Ferng, MIT, USA, "Designing Conclusions for a Cold-War Humanity" (Robinson Prize Candidate)

David Unger, Harvard University, USA, "From Technology to History: The Afterlife of Early Artificial Intelligence Machines" (Robinson Prize Candidate)

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2. Proceed to the lower level (follow signs to ground transportation), and continue to follow the signs upstairs to the Scheduled Van/Hotel Shuttle Van loading area. SuperShuttle is conveniently located inside the terminal at the Ground Transportation Atrium.
3. Identify yourself to the SuperShuttle agent and show your Special Rate Coupon to purchase your ticket and you will be transported to your hotel.

Return Reservations

Advance reservations are not required for group departures from the Hyatt Regency - Minneapolis. SuperShuttle Shared-Ride Van Service, or Exclusive Van Service: Please contact us at **800-BLUE-VAN** at least 24 hours in advance of your departure time. Reservation agent will suggest pick up time from your hotel. To book online go to www.supershuttle.com. Our local contact number is 612-827-7777 ext 1.

On-line Reservations

Online reservations can be made in advance. Reservations will need to be guaranteed by a credit card. Please have your flight information available and your discount code **#UZDMB**

To Book on-line: www.supershuttle.com. **Click on on-line reservations.**

Welcome: Make your reservation choice. (To airport, From Airport, or Round-Trip). Have discount code **#UZDMB** available.

Flight info: Have your airline, flight number, and times available.

Enter Hotel or Landmark: I.E. HYATT REGENCY (Make sure address matches your itinerary. The hotel chain may have more than one location)

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**Society for the History of Technology
Annual Meeting November 3-6, Minneapolis, MN, USA**

REGISTRATION FORM

Return to: SHOT Registration, 618 Ross Hall, Iowa State University, Ames IA 50011, USA
www.shot.jhu.edu Email: shot@iastate.edu Fax: 515-294-6390

Presenters: To guarantee your spot on the program your registration must be received by 10/03/05.

| Information | Male or Female (please circle) |
|--------------------------|--------------------------------|
| Title: | |
| Last Name: | |
| First Name: | |
| Affiliation: | |
| Street Address: | |
| Zip/Postcode: | |
| City & State: | |
| Country: | |
| Phone: | |
| Fax: | |
| Email address: | |

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| Badge Information: | |
| Member's name: | |
| Affiliation: | |

| Registration (by October 3) | Cost | Total |
|--|-------|-------|
| Early registration— SHOT member | \$85 | |
| Early registration—SHOT student member | \$45 | |
| Early registration—non-SHOT member | \$110 | |
| Early registration—non-SHOT member student | \$55 | |
| Early registration—low-income | \$65 | |
| After October 3 | | |
| SHOT Member registration | \$105 | |
| Student SHOT member registration | \$60 | |
| Non-SHOT member registration | \$130 | |
| Non-SHOT member student registration | \$70 | |
| Low-income registration | \$80 | |

| Group Events | Cost | Total/Indicate Participation |
|---|-------------|-------------------------------------|
| Thursday Bakken Library & Museum Tour | \$20 | |
| Thursday Mill City Museum Tour | \$20 | |
| Thursday Plenary Session (please register) | \$0 | |
| Thursday Reception (please register) | \$0 | |
| Friday Reception (please register) | \$0 | |
| Saturday Awards Banquet (indicate meal choice below) | \$52 | |
| **Add cost of second meal and meal choice for accompanying person | \$52 | |

Person 1. Chicken entrée _____ Vegetarian entrée _____ Special diet required _____

Person 2. Chicken entrée _____ Vegetarian entrée _____ Special diet required _____

| SIG Meetings | | |
|---|-----------|--|
| Friday Military Technology Luncheon | pay there | |
| Friday WITH Luncheon—regular lunch price | \$33 | |
| graduate students/underemployed | \$18 | |
| Saturday Computers, Information, & Society Luncheon | \$31 | |
| Saturday Mercurians & Jovians Breakfast—regular breakfast price | \$19 | |
| graduate students | \$9 | |
| Saturday Envirotech Breakfast | \$22 | |
| Friday Albatrosses Breakfast | \$19 | |
| Saturday TEMSIG Luncheon | pay there | |
| Friday Engineering Breakfast (new SIG) | \$19 | |

| Other Meetings | | |
|---|------|--|
| Saturday Graduate Students & Current International Scholars Breakfast | \$19 | |
| Friday Tensions of Europe Breakfast | \$19 | |

Payment Details—please note your registration is definite only after we have received your payment

Total amount for registration, tours, meetings, receptions _____

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Card # _____ Expiration date _____ / _____

If paying by credit card your address must match your billing information.

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Name and address must be printed on the check.

Access to elevator, ramp, other accommodations (specify) _____

SOCIETY NEWS

ENVIROTECH

Between Houston and Minneapolis

Since the ASEH, Marty Reuss and Stephen Cutcliffe have agreed to take over the lead on the Envirotech Handbook project from Betsy Mendelsohn. They are now building the team that will create this volume. They are also continuing discussions with University of Virginia Press. Thanks to Jim Williams and Betsy Mendelsohn for laying a solid foundation for this work. Marty and Steve deserve all our support with their important work. If they come calling, "Just say yes."

Keep your eyes out for Hugh Gorman's Roundtable, "At the Intersection of Environmental History and the History of Technology: Themes, Methods, and Directions" of Envirotech at the SHOT meetings including commentaries by Ed Russell, Marty Reuss and John Staudenmaier.

Envirotech the next generation-- Call for informants At the Envirotech Breakfast at the SHOT meeting at Minneapolis, we'd like to hear from doctoral students at the prospectus and early research stage willing to talk for 5-7 minutes about their work. We want both to welcome those just starting their research in the field to our midst, and give those already publishing in Envirotech the chance to connect, ask questions and make suggestions, either at the breakfast or in corridor chat as the conference progresses.

*** Supervisors: please pass this suggestion on to your students. Please send a short cv and description of your project to Joy Parr, jparr@uwo.ca by 30 August.

Another Envirotech event at SHOT is the session 'No Nature: Negotiating the Intersections of the Histories of Science and Technology' with papers by David Nye, Ben Cohen and Michael Egan, chaired by Gregg Mitmann.

Martin Melosi, Distinguished University Professor of History at the University of Houston, has been named recipient of the Esther Farfel Award for 2005. The award is the highest accolade bestowed on a faculty member by the university, in recognition of overall career excellence in research, teaching, and service.

John Krige was awarded the Dickinson Medal by the (British) Newcomen Society for the Study of the History of Engineering and Technology at a ceremony at the Science Museum, London. His Dickinson Lecture, the 26th in the series, will be published in the Society's Transactions.

RECENT PUBLICATIONS

The History and Politics of Voting Technology: In Quest of Integrity and Public Confidence, by Roy G. Saltman. (January 2006, Palgrave Macmillan).

The book covers the development of voting technology in the US, beginning with the use of oral (*vive voce* voting) in the revolutionary period and its slow replacement with paper ballots through the early years of national sovereignty. The invention of the mechanical lever voting machine in 1888, use of punch cards, mark-sense ballots and direct recording electronic (DRE) machines are described. The politics of voting technology, in the introduction and use of different kinds, first to assure secrecy and now to assure equal access to the voting process due to differences in socio-economic status among individuals, is a major theme.

Cincinnati Museum Center at Union Terminal is pleased to announce the publication of the third edition of *Cincinnati Locomotive Builders: 1845-1868*. The author, John H. White, worked at the Smithsonian Institution for 32 years as a curator, department chairman and a senior historian. A native of Cincinnati, he currently teaches history at Miami University, Oxford, OH. First published by the Smithsonian Institution in 1965, the third edition has 40 pages of new information, 15 new illustrations and a color illustration by artist Jon Davis of California.

PRESIDENT'S MESSAGE

In late April I had the privilege and pleasure of attending a nearly daylong briefing on *Technology and Culture* publication strategy hosted by the Johns Hopkins University Press (JHUP) in Baltimore. Also there from SHOT were the *T&C* editorial team (John Staudenmaier, Joe Schultz, and Bob Post) as well as SHOT secretary Amy Bix and vice-president Steve Usselman. Our JHUP host was Bill Breichner, head of the Journals Division, who invited four colleagues from different areas ranging from marketing to production to help us understand the full range of issues. We are grateful to all of our Press partners for their time and thoughtfulness in arranging such a valuable and extensive discussion.

As is so often the case with SHOT business, it is of academic interest to us as historians of technology as well as of practical interest as SHOT officers. In assessing the future of *Technology and Culture*, we are participant-observers of a major transition from print to electronic publishing as a significant, and possibly even dominant, mode of scholarly production. (I am choosing my words carefully as I teeter on the edge of our ongoing debates about what constitutes a technological revolution!)

At the end of our day at the Press, I jotted down three conclusions on which we had converged:

1. the content of *T&C* has value beyond our traditional markets
2. there are cost-effective electronic ways of reaching new audiences
3. we have to do this

The rest of this note will explain how we reached those conclusions and what the implications are for SHOT.

First, some background information. *T&C* is currently available in two formats, print and electronic. The print version of *T&C* is available both to institutions and to individuals, who automatically become SHOT members when they subscribe. SHOT members can also access an electronic version of *T&C* as a membership benefit.

Electronic versions of *T&C* are also available through two products sold to institutions only: Project Muse and JSTOR. Both began with support from the Mellon Foundation in the late 1990s. Project Muse has morphed from being a subdivision of the JHUP, limited to JHUP journals, to being a separate division of the JHUP that includes journals from other presses. Muse is primarily a mechanism for delivering current year content, though subscribers also get some back issues (in the case of *T&C*, beginning with the July 1998 issue). The number and range of journals in Muse varies over time. Of the ca. 250 journals currently included (the number has ranged between 218 and 261), 59 are published by JHUP.

JSTOR, on the other hand, is a largely static collection of back issues of specific journals: no new titles are added, though additional issues may be. In the case of *T&C*, JSTOR includes all issues from 1959 through April 1998.

Institutions can access the electronic version of *T&C* in three ways: by purchasing from the Journals division of JHUP a single title subscription for print and electronic combined (140% of the institutional print price); by purchasing (also from the Journals division) the e-version only (priced the same as a print subscription); or by purchasing a subscription to Muse and receiving *T&C* as part of that purchase.

Both print and electronic formats provide SHOT with a revenue stream. That from print has been declining for some years. This is primarily due to a sharp drop in the number of institutional subscribers as libraries continue to trim or even hack away at print subscription lists. The number of individual subscribers has also declined steadily though less precipitously.

On the other hand, royalties from e-versions of *T&C* continue to grow. This is not so much the case for JSTOR--its content is relatively unchanging and it pays low royalties--but it is certainly the case for Muse. In recent years Muse revenues have edged up from one-fifth to one-quarter of *T&C*'s total income.

How those royalties are calculated is complex. One part of the formula is based on usage, measured by hits. Of the 59 JHUP journals currently included in Muse, *T&C* currently ranks 13th in the number of hits; out of the 250-odd total number of journals in Muse, *T&C* ranks 17th. These are very good showings. Royalty income from

Muse also depends upon the amount of content in the database as a whole. This part of the formula works to SHOT's advantage, since *T&C* is a well-established journal with a stable publication record for nearly a half century. Finally, *T&C* also benefits from the fact that it is on four of the five standard Muse packages that JHUP sells to institutions, as well as being available as a single title.

Our JHUP colleagues predict the revenues from print versions of *T&C* will continue to drop while those from Muse will continue to grow. They also advise that because *T&C* is a first-rate academic journal in an area of potentially broad interest, the content of JSTOR has considerable potential value, whether SHOT itself finds ways to use the back content or works with JSTOR to do so.

This is not a surprising prognosis, certainly not for historians of technology. What is more surprising is the perspective of our JHUP colleagues that scholarly journals, at least in our intellectual neighborhood, have not developed a cohesive editorial policy for e-publication. In the words of one participant, the general failure to do this has been "disappointing."

It also represents a real opportunity for SHOT. Based on our print publication history, we are in a strong position of intellectual leadership. *T&C* is regarded as an essential, core journal with the highest reputation for its scholarly standards. In addition to this, however, we currently publish material that is of interest to non-historians—notably members of other professions (journalists, librarians, lawyers, physicians, scientists, businessmen, and of course engineers) who want to understand their work from a historical perspective, and whose activities contribute to the further development of the history of technology.

T&C is in an excellent position to develop what we are already doing in print to take a leadership role in e-publication strategy. Such a strategy should complement without replacing print publication; should ensure sustainability and maintainability; and should allow for interactivity while adhering to the scholarly standards and reliability that are so critical to SHOT's reputation. We have the opportunity to weave a new kind of seamless web: a web of access to the history of technology, connecting current research

with past work, and connecting non-historians as well as historians with topics of interest.

If SHOT does this in a comprehensive, sophisticated, and authoritative way, we will expand greatly the reach of the Society, at relatively low cost, while also developing a rising stream of income from Muse and JSTOR. This is just restating the three interdependent conclusions listed above. The major challenge SHOT faces is deciding how to move forward with an e-publication strategy when there are so many attractive things we could do but when our organizational resources are limited.

In the famous words of Pogo, we are surrounded by "insurmountable opportunities." If you get a four SHOT members together, soon the air is full of a hundred exciting and entirely plausible ideas for electronic publication and services. To capture some of these ideas, the Executive Council is asking the Editorial Committee [currently consisting of Joe Corn (chair), Jonathan Coopersmith, Colleen Dunlavy, Deborah Fitzgerald, and Ron Kline] to help survey membership for ideas and to generate its own. Before the Minneapolis meeting in early November, the Editorial Committee will present its proposals for an electronic publishing strategy for consideration by the Executive Council.

Any strategic plan requires both words—explaining what we are trying to accomplish and why—and numbers—to specify the financial, human, and other resources needed to carry out the plan, as well as a timetable. One of the most valuable outcomes of our day in April with the Press was the reminder that e-publication is a complicated, rapidly changing, and specialized field. All of us in SHOT have some experiences with it as scholars, but behind this zone of amateur knowledge lies a large terrain of legal, editorial, economic, managerial, and, yes, technical issues that keep our JHUP partners busy all day and sometimes awake at night. Whatever SHOT does, we cannot do it as amateurs, in our spare time. We will have to invest society resources into e-publication—but the potential rewards of our investment, both financial and intellectual, make this move as necessary as it is exciting.

Rosalind Williams

ANNOUNCEMENTS

Graduate Certificate Program in Science, Technology, and Society at the University of Michigan

The program in Science, Technology, and Society at the University of Michigan solicits applications from students wishing to pursue a Ph.D. with specialization in STS, the history or anthropology of medicine, or related fields.

UM's STS program offers a wide range of perspectives on the reciprocal role of science, technology, and medicine in shaping societies, cultures, and politics. Geographical strengths include Africa, the Middle East, North America, and Western Europe. Topical strengths include:

- ... Colonial, transnational, and global dynamics in the practice of technology, science, and medicine
- ... Historical and anthropological perspectives on bodies, health, genetics, and environment
- ... Politics and culture of information systems
- ... Life sciences and their social implications
- ... Cultural meanings of science, technology, and medicine

The University of Michigan encourages scholars routinely to move across traditional academic boundaries. In order to balance disciplinary training and accreditation with interdisciplinary research, the STS certificate is offered in conjunction with disciplinary Ph.D. programs. Candidates should therefore apply to departments for admission. The program particularly encourages applications to the departments of History, Anthropology, American Culture, and Sociology, and to the schools of Information and Public Health.

For more information about the program and its faculty, please consult our web site: <http://www.umich.edu/~umsts/>

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National Humanities Center Names Fellows for 2005-06

Research Triangle Park, NC. The National Humanities Center has announced the appointment of 39 Fellows for the academic year 2005-06.

Representing history, literature, philosophy, and other humanistic fields of study, these scholars will come to the Center from the faculties of 33 colleges and universities in the United States, England, and Germany. They will work individually on research projects in the humanities, and will exchange ideas in seminars, lectures, and conferences. In addition to these appointed Fellows, the Center will welcome the well-known critic and scholar Helen Vendler as a distinguished visitor for a month.

The Center received 535 applications in its fellowship competition for 2005-06. The appointed Fellows will also include four scholars who have received Burkhardt Fellowships from the American Council of Learned Societies.

The National Humanities Center will grant \$1.3 million to enable its chosen Fellows to take leave from their normal academic duties and pursue their research at the Center. Funding for these fellowships is made possible by the Center's endowment, by contributions from alumni Fellows of the Center, and by grants from the Gladys Krieble Delmas Foundation, the Jessie Ball duPont Fund, the Florence Gould Foundation, the Lilly Endowment, and the National Endowment for the Humanities.

The National Humanities Center, located in the Research Triangle Park of North Carolina, is a privately incorporated independent institute for advanced study in the humanities. Since 1978 the Center has awarded fellowships to leading scholars in the humanities, whose work at the Center has resulted in the publication of more than 900 books in all fields of humanistic study. The Center also sponsors programs to strengthen the teaching of the humanities in secondary and higher education.

**DIBNER INSTITUTE NAMES
SENIOR FELLOWS,
POSTDOCTORAL FELLOWS,
SCIENCE WRITER FELLOW,
and GRADUATE STUDENT FELLOWS
for 2005-2006**

The Dibner Institute for the History of Science and Technology is pleased to announce the appointments of the Dibner Institute Fellows for 2005-2006. The Institute will welcome eight Senior Fellows, six Postdoctoral Fellows, including two re-appointed Postdoctoral Fellows, one Science Writer Fellow, and seven Graduate Student Fellows.

Three Senior Fellows, Ben Marsden, Glen Van Brummelen and David Wilson will be here for a full year; Carl Posy will be here during the Fall 2005 term; and Bruno Belhoste, Karine Chemla, David Friedman and Giovanni Paoloni will be here for the Spring 2006 term.

SENIOR FELLOWS

Bruno Belhoste, Professeur d'histoire contemporaine (histoire des sciences et des techniques), University Paris X-Nanterre, is the author of *La Formation d'une technocratie. L'Ecole polytechnique et ses élèves de la Révolution au Second Empire*, 2003. At the Dibner Institute he will begin work on a study of the effects of the laboratories, institutions, schools, and major local scientific figures on the scientific activity in Paris at the end of the 18th and beginning of the 19th centuries.

Karine Chemla is Directrice de recherche, at the French National Center for Scientific Research (CNRS) in the research group REHSEIS. She is the chief editor of the journal for Far Eastern Studies, *Extreme-Orient, Extreme-Occident* and the author, with Guo Shuchun, of *Les neuf chapitres. Le classique mathématiques de la Chine ancienne et ses commentaires*, 2004. She plans to begin writing a book in English describing the main features of mathematical activity in ancient China, using her latest book with a newly discovered source to examine Chinese mathematics of two thousand years ago and its integration into world mathematics.

David Friedman is Professor in the History, Theory and Criticism Section, Department of Architecture, Massachusetts Institute of Technology. He is the

author, with Hilary Ballon, of the forthcoming chapter on city views, for Volume 3 of the *History of Cartography*, ed. David Woodward and, with Antonella Astorri, "The Mercanzia of Florence," *I Tatti Studies*. At the Dibner Institute he plans to develop a book on the early methods of geometric survey, the development of maps of urban design, and the accuracy of the instruments used.

Ben Marsden, Lecturer in Cultural History, University of Aberdeen, Scotland, is the author, with Crosbie Smith, of *Engineering Empires: A Cultural History of Technology in Nineteenth Century Britain*, 2005. At the Dibner Institute he plans to continue working on his book project, "W.J. Macquorn Rankine and the Making of Engineering Science."

Giovanni Paoloni, Professor of Studies on Cultural Heritage at University "La Tuscia," Viterbo, Italy, is the author of the article, "I periodici scientifici e tecnici," in *La Stampa periodica romana durante il fascismo (1927-1943)*, Vol I, pp. 109-125. His project while at the Dibner Institute is titled "Vito Volterra and his American Correspondents."

Carl Posy, Professor of Philosophy at Hebrew University, is the author of "Epistemology, Ontology and the Continuum," in *Mathematics and the Growth of Knowledge*, 2001. The title of the project on which he will be working at the Dibner Institute is "Kantian Mathematical Themes: A Pair of Chapters in 18th and 19th Century Mathematics."

Glen Van Brummelen, Professor of Mathematics, Bennington College, is the Editor, with Michael Kinyon, of the forthcoming volume, "Mathematics, Content and Context: The Kenneth O. May Lectures in History of Mathematics." His research project while at the Dibner Institute is a scientific history of trigonometry from Hipparchus to Fourier.

David Wilson, Professor in the Department of History, Iowa State University, is the Co-editor, with Johanna Geyer-Kordesch, of *Physics and Physic: Essays in Memory of John M.A. Lenihan*, 2001 and of a manuscript being submitted this spring, "Seeking Nature's Logic: Natural Philosophy in the Scottish Enlightenment." At the Dibner Institute he will begin research for a biography of William Whewell, emphasizing Whewell's transition from studies in natural philosophy to modern 'science.'

POSTDOCTORAL FELLOWS

Sandro Caparrini is on the faculty of the University of Turin, where he received his Ph.D. in Mathematics in 2004. He is the author of *I manoscritti di Giovanni Plana dell'Accademia delle Scienze di Torino. Catalogazione e Note Storiche*, 2000. At the Dibner Institute he plans to work on illustrating the direct influence of mechanics and geometry on the development of vector calculus.

Matthew Harpster, enrolled in the Department of Anthropology, Texas A& M University, will receive his Ph.D. this summer. His dissertation is titled "A Reconstruction of the 9th Century A.D. ships from Bozburun, Turkey." While at the Dibner Institute he will examine the hull remains from five shipwrecks spanning the first to the eleventh century A.D. in an attempt to trace the development of design methods recorded in two 15th century Italian treatises.

Jeremiah James will receive his Ph.D. June 2005 from the History of Science Department, Harvard University. The title of his dissertation is "Naturalizing the Chemical Bond: Program and Discipline in the Pauling group, 1927-1942." At the Dibner Institute, he will work on two projects: the first, to prepare two chapters of his dissertation on Linus Pauling for publication; and the second will be a history of the early years of x-ray crystallography and its progress to routine laboratory technology.

Martin Niss will receive his Ph.D. this spring in the history of physics from the University of Roskilde, Denmark. The working title of his dissertation is "Phenomena, Models, and Understanding: The Use of Models in Critical Phenomena, 1944-1971." The title of his proposed project while at the Dibner Institute is "Mathematics as a Constraint and the Impact of New Techniques on Modeling Practices in Solid State Physics."

POSTDOCTORAL FELLOWS, Second Year

Claire Calcagno received her Ph.D. in Archaeology from Oxford University, and was recently a Visiting Scholar in MIT's Program in Science, Technology, and Society, working with the Deep-Water Archaeology Research Group. Her research at the Dibner Institute focuses on Harold Edgerton's innovative engineering

contributions to maritime archaeology, including sonar instruments he developed that transformed underwater survey methods.

Takashi Nishiyama received his Ph.D. from The Ohio State University in 2004.

He has been working on a book-length manuscript, which expands on his dissertation, "Swords into Plowshares: Civilian Application of Wartime Military Technology in Modern Japan, 1945-1964." As a researcher at the Research Center for Advanced Science and Technology, the University of Tokyo, he carried out extensive archival work on the technology transfer from aeronautics to the high-speed bullet train in post-World War II Japan.

SCIENCE WRITER FELLOW

Deborah Cramer wrote *Great Waters: An Atlantic Passage*, 2001, which explores the myriad ways in which the sea is a wellspring of life, and how humans are altering its finely tuned balances. In her next book, "Cholera: The New Face of an Old Disease," she will examine how the complex interplay among a wide array of scientific disciplines - climatology, limnology, epidemiology, ecology, engineering, genetics, and microbiology - has framed, and reframed, our understanding of an ancient and reemerging scourge.

GRADUATE STUDENT FELLOWS

Alexander Brown, a student in MIT's Program in Science, Technology and Society, received the B.A. in History in 1998 and the B.Sc. in Computer Science in 1997 from the University of Otago, New Zealand. The title of his thesis is "From Apollo I to Columbia: Accidents, Politics and Engineering Cultures at NASA, 1967-2003."

Dimitri Constant, a candidate for a Ph.D. at Boston University, is a graduate of Yale University, and received an M.A. in Religion from the Yale Divinity School. For his dissertation, he is writing about "The Standard Interpretation of Higher-Order Variables in Modern Logic and the Concept of Arbitrary Function in Mathematics."

Jean François Gauvin is a doctoral candidate in the Department of the History of Science, Harvard University. At the University of Montreal he received the B.Sc. in Mathematical Physics and an M.A. in the

History of Science. The title of his thesis is "Epistemic Organon: Artisans, Savants, and the Material Culture of Natural Philosophy in 17th Century France."

Peter Shulman, a student in MIT's Program in Science, Technology and Society, received his B.S. in Mathematics from MIT. He is the author of "Science Can Never Demobilize: The United States Navy and Petroleum Geology, 1898-1924," *History and Technology*, 2003. His dissertation, "Empire of Energy: Coal, Power, and the Environment of American Expansion, 1880-1930," explores the impact of coal and steam power on the American empire in the Caribbean and Pacific.

Jenny Leigh Smith, a student in MIT's Program in Science, Technology and Society, received the B.A. from Macalester College. Her dissertation examines the history of agriculture, food and the environment in the Soviet Union between 1945 and 1965.

Elly Truitt, a doctoral candidate in the Department of the History of Science, Harvard University, received her B.A. at Wellesley College and an A.M. at Harvard. Her dissertation is a cultural and intellectual study of medieval automata in Western Europe, 1100-1550.

Anya Zilberstein is a student in MIT's Program in Science, Technology, and Society. She is working on her dissertation entitled "Planting Improvement: Small Farms and Scientific Agriculture in the British North Atlantic, 1763-1815," which examines the relationship between farmers and agricultural modernizers at two sites: the hinterlands of Boston, Massachusetts and Halifax, Nova Scotia.

NSF Science and Society Program

This announcement is to inform you that the NSF Science and Technology Studies (STS) Program and the NSF Societal Dimensions of Engineering, Science, and Technology (SDEST) Program no longer exist under those titles. The new, consolidated program title is Science and Society (S&S), which can be found on the NSF Website at

http://www.nsf.gov/funding/pgm_summ.jsp?pims_id=5324&org=SBE&from=home.

The new program includes the following components: Ethics and Values in Science, Engineering, and Technology (EVS); History and Philosophy of Science, Engineering, and Technology (HPS); Social Studies of Science, Engineering, and Technology (SSS); and Studies of Policy, Science, Engineering, and Technology (SPS).

The upcoming August target date for proposals is **August 23, 2005**. Thereafter, the program reverts to its twice yearly target dates of February 1 and August 1. S&S considers proposals that examine questions that arise in the interactions of engineering, science, technology, and society.

This program solicitation covers the following modes of support:

1. S&S Scholars Awards
2. Standard Research Grants and Grants for Collaborative Research
3. S&S Postdoctoral Fellowships
4. S&S Professional Development Fellowships
5. Doctoral Dissertation Research Improvement Grants
6. Small Grants for Training and Research
7. Conference and Workshop Awards
8. Other Funding Opportunities

For information on EVS and SPS, contact Priscilla Regan at pregan@nsf.gov

For information on HPS and SSS, contact Ron Rainger at rrainger@nsf.gov

For information on dissertation research support, contact John Perhonis at jperhoni@nsf.gov

EXTRA!!

The SHOT *Newsletter* is your newsletter and a way to make contact with other members of the organization. We are happy to publish items of interest and news of members provided the information is received in our office by the 1st of the month prior to the publication month.

| |
|--------------------|
| CONFERENCES |
|--------------------|

2005 Conference on Illinois History
October 27-28, 2005
Springfield, Illinois

The Conference on Illinois History—now in its seventh year—is the state’s largest meeting devoted to the history of the Prairie State. More than two hundred fifty attended the 2004 conference, which featured traditional academic papers, local history studies, teacher workshops, and roundtable discussions.

This year’s luncheon and dinner speakers (pre-registration required by **October 21, 2005**):

Carl J. Ekberg, *Professor Emeritus of History, Illinois State University*

Ekberg, an expert on the French in colonial Illinois, has written the award-winning books *French Roots in the Illinois Country: The Mississippi Frontier in Colonial Times*; *François Valle and His World: Upper Louisiana before Lewis and Clark*; and *Colonial St. Genevieve: An Adventure on the Mississippi Frontier*. His presentation will be on French-ness and Indian-ness in Illinois.

Darroch Greer, *Documentary filmmaker and historical researcher*

Greer researched the casualty figures for “The Civil War in Four Minutes,” one of the exhibits in the new Abraham Lincoln Presidential Museum in Springfield. He has written, produced, and directed documentaries for PBS, Discovery Channel, History Channel, and VH1. He will discuss the development of “The Civil War in Four Minutes.”

Edna Greene Medford, *Associate Professor of History, Howard University*

Medford is a nationally recognized scholar and frequent lecturer on African Americans in Slavery and freedom. As a member of the Scholars Advisory Board for the Abraham Lincoln Presidential Library and Museum, she participated in discussions for planning the museum’s content. She is also a member of the Advisory Committee for the Abraham Lincoln Bicentennial Commission. Medford will speak on blacks’ perceptions of emancipation.

To ensure that you receive a registration form and program for the conference, contact Donna Lawrence, IHPA, 1 Old State Capitol Plaza, Springfield, IL 62701, by email at donna_lawrence@ihpa.state.il.us or phone 217-785-7933. Details will be posted as they become available at www.Illinois-History.gov/conference.htm

The Conference is accredited by the Illinois State Board of Education for CPDU.

THE 2005 Historic
Ironmaking Conference
(also known as the Ironmasters Conference)

Will be held on Saturday, **October 15, 2005** at the Lautenberg Visitor Center, Sterling Forest State Park, 115 Old Forge Road, Tuxedo, New York.

The North Jersey Highlands Historical Society & Friends of Long Pond Ironworks are hosting the conference. The beautiful, new Lautenberg Visitor Center overlooking Sterling Lake contains several wonderful exhibits relating to the history of iron mining and manufacturing in Sterling Forest along with an introductory movie that describes the region and its resources.

A guided field trip to iron sites within Sterling Forest will take place on Friday October 14, 2005 at 2:00 PM.

On Sunday, October 16, 2005 a guided tour of the nearby Long Pond Ironworks Historic District, Greenwood Lake Turnpike, West Milford, NJ will take place at 10:00AM.

Iron researchers and enthusiasts are invited to speak at Saturday's conference. Presentations should be twenty-five minutes long and may be illustrated with slides or other graphic material. Kindly submit a title and abstract to Edward J. Lenik, Program Chair at 100 Deerfield Road, Wayne, NJ 07470-6414 or email edlenik@hotmail.com If you have any questions, please call 973-835-0770 between 9:00Am an 4:00PM.

The conference is free and open to the public, but advance registration is required as seating space is limited.

CALLS FOR PAPERS

THE 2005 Historic Ironmaking Conference (also known as the Ironmasters Conference)

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The conference is free and open to the public, but advance registration is required as seating space is limited.

Call for Papers for the VAF 2006 Annual Meeting in New York City

The Vernacular Architecture Forum is soliciting paper proposals from academics, consultants, and other scholars for presentation at its Annual Meeting to be held **June 14 -17, 2006** in New York City. The conference theme is "City Building." Papers may

address any aspect of vernacular architecture and the cultural landscape from any geographic region worldwide. Although papers may cover any topic or time period, the Papers Committee especially encourages submissions on topics related to the conference theme. Papers could address such topics as: urban vernaculars of the nineteenth and twentieth centuries; speculative development in urban places; place making, and place marking by creating boundaries that restrict according to race, ethnicity, and/or gender; the effects of governmental regulation, especially on housing and open space; preservation and/or public history. The Papers Committee also encourages proposals for complete sessions,

roundtable discussions, and any innovative means that facilitates scholarly discourse.

Proposals may be for a twenty-minute paper on a subject the author has extensively researched, or for a ten-minute "work in progress" report. In either case, papers should be theoretical or analytical in nature, rather than descriptive. Selection will be based on the proposed paper's original contribution to the study of vernacular architecture and the cultural landscape. Papers presented at the meeting will be considered for publication in the VAF's new scholarly-refereed journal *Perspectives in Vernacular Architecture* (PVA). One-time fellowship awards are available to students and young professionals whose papers have been accepted. Applications for these awards are found under Special Programs at <http://vernaculararchitectureforum.org>.

Proposals should include a title for the paper, the author's name, mailing address, email address, telephone and fax numbers. The proposals should be single-sided, a maximum of 400 words, and accompanied by a brief curriculum vitae. They must state clearly the argument of the paper and explain the methodology and content. Only one submission per author will be accepted.

Deadline: Proposals must be postmarked by **October 15, 2005**. Accepted papers, tailored to the prescribed time limits, must be submitted in full to the session chairs by March 15, 2006. Presenters must deliver their papers in person and be VAF members at the time of the conference.

Please send proposals electronically as Word documents to Clifton Ellis at Clifton.ellis@ttu.edu, or hardcopies to Clifton Ellis, VAF c/o College of Architecture, Texas Tech University, Box 42091, Lubbock, TX 79409-2091.

Please check the annual meeting part of SHOT's website regularly to see the latest conference information and updates.

http://www.shot.jhu.edu/Annual_Meeting/Annual_Meeting_Main_Page.htm

Please don't forget to vote in SHOT elections! You can find a ballot in this newsletter or vote online through the SHOT website at:

<http://www.shot.jhu.edu/>

**Call for Papers
Museum Boerhaave
Leiden, the Netherlands
October 20-22 2005**

In October 2005 a three-day conference will be organized in Museum Boerhaave. The conference deals with instruments and their users. More detailed information can be found on www.museumboerhaave.nl/conference.

The central topic can best be formulated as a question: *who needs scientific instruments?*

We invite historians of science as well as historians of scientific instruments to give their views and elaborate on the users of scientific instruments. Each day there will be another theme.

I. The status of instruments

Thursday 20th October

Chair: Dr. Robert Anderson, Former director of the British Museum, London

Instruments and their users are the cornerstones of science. The surviving instruments demonstrate the development of scientific progress. In addition, they reflect the status of science and scientists over time. For instance, instruments in royal cabinets demonstrate the wealth and interest of their owners. In scientific societies instruments were used for educational purposes and became symbols of the exchange of knowledge. All such instruments can change in stature after their original use, e.g., when they are stored in museums and become cultural symbols.

Papers in this session should deal with:

- * Instruments as symbols (of, for instance, power, wealth, knowledge and/or education)
- * The role of collections and/or cabinets in the history of science
- * The changing status of instruments

II. Location and organization

Friday 21st October

Chair: To be announced

Instruments are not loose entities. They are used in specific environments, created by their users. An example is the rise of the modern laboratory. Without the laboratory environment many instruments would simply not have been developed. Sometimes the environment forces the user to modify his instruments, as with expeditions or experimental fieldwork. Other environments or kinds of research force scientists to work together in groups, with manufacturers, or in research centers.

Papers in this session should deal with:

- * The creation of an instrumental environment
- * The influence of a scientific location on instruments and their users
- * The role of makers and users of scientific instruments in research organizations

III. Innovation

Saturday 22nd October

Chair: Prof. Albert van Helden, History of Science, Utrecht University

An important aspect of the development of instruments is innovation. Propagation of instruments has an important part to play in the innovation process. Who brings the new instruments to wider notice, so that they will be used and modified? Users want specific qualities in their instruments. Can their demands be met by the instrument makers, or do users make their own adaptations? And do users or manufacturers change the initial purposes of an instrument over time?

Papers in this session will deal with:

- * The innovation and propagation of new scientific instruments
- * The input of users on instrumental changes
- * The collaboration of manufacturer and user as a driving force for innovation

You are invited to give a talk of up to 25 minutes on one of these themes. Proceedings of the conference will be published afterwards. A proposal for a talk can be submitted until **August 1, 2005**. Furthermore it should be accompanied by the theme, a title and an abstract of 250-500 words. To enter a proposal please visit the website

www.museumboerhaave.nl/conference.

EMPLOYMENT

History of Science

Yale University seeks an Assistant or junior Associate Professor in the history of science or technology beginning July 1, 2006. Field, region, and period are open, but preference will be given to applicants who work in the history of the experimental life sciences since 1800. Duties will include teaching in the Program in the History of Science and Medicine, the History Department, and the Section for the History of Medicine in the School of Medicine. Applications are also welcome from candidates who work in the history of technology since 1800, early modern science, or science in the developing world. The search committee will begin considering applications on **September 15, 2005**.

Yale University is an equal opportunity/affirmative action employer and actively encourages applications from minority and women scholars. Ph.D. preferred by the time of appointment. Applicants should send a curriculum vitae, graduate transcript, three letters of recommendation, a statement about their work and professional plans, and a sample of their scholarly writing such as a dissertation or book chapter or article to Professors Daniel J. Kevles and John Harley Warner, Co-Chairs, History of Science Search Committee, c/o Barbara McKay, Department of History, Yale University, P.O. Box 208324, New Haven, CT 06520-8324.

FELLOWSHIPS AND GRANTS

NATIONAL HUMANITIES CENTER Fellowships 2006-2007

Purpose and Nature of Fellowships: The National Humanities Center offers 40 residential fellowships for advanced study in the humanities during the academic year, September 2006 through May 2007. Applicants must hold doctorate or have equivalent scholarly credentials, and a record of publication is expected. Senior and younger scholars are eligible, though the latter should be engaged in research beyond the revision of a doctoral dissertation. Scholars from any nation may apply. In addition to scholars from all fields of the humanities, the Center accepts individuals from the natural and social sciences, the arts, the professions, and public life who are engaged in humanistic projects.

Areas of Special Interest: Most of the Center's fellowships are unrestricted. The following designated awards, however, are available for the academic year 2006-07: three fellowships for scholars in any humanistic field whose research concerns religion; three fellowships for young scholars (up to 10 years beyond receipt of doctorate) in literary studies; a fellowship in art history or visual culture; a fellowship for French history or culture; a senior fellowship in Asian Studies, theology, or American art history.

Stipends: Fellowships up to \$50,000 are individually determined, the amount depending upon the needs of the Fellow and the Center's ability to meet them. The Center provides travel expenses for Fellows and their dependents to and from North Carolina.

Facilities and Services: Located in the Research Triangle Park of North Carolina, near Chapel Hill, Durham, and Raleigh, the Center provides an environment for individual research and the exchange of ideas among scholars. The Center locates suitable housing for Fellows in the neighboring communities. The Center's building includes private studies for Fellows, conference rooms, a central commons for dining, lounges, reading areas, a reference library, and a well-equipped Fellows' workroom. The Center's library service delivers books and research materials to Fellows. The Center also provides support for information technology and editorial assistance.

Support: Fellowships are supported by the Center's endowment, private foundation grants, alumni

contributions, and the National Endowment for the Humanities.

Deadline and Application Procedures: Applicants submit the Center's form supported by a *curriculum vitae*, a 1000-word project proposal, and three letters of recommendation. You may request application material from Fellowship Program, National Humanities Center, Post Office Box 12256, Research Triangle Park, North Carolina 27709-2256, or obtain the form and instructions from the Center's website. Applications and letters of recommendation must be postmarked by **October 15, 2005**. Contact <http://www.nhc.rtp.nc.us>; Email: nhc@ga.unc.edu

The National Humanities Center does not discriminate on the basis of race, color, sex, religion, national or ethnic origin, handicap, sexual orientation, or age.

American Philosophical Society Grant and Fellowship Programs

All information and forms for all of the Society's programs can be downloaded from our website, <http://www.amphilsoc.org> Click on the "Fellowships and Research Grants" tab at the top of the homepage.

Our grants are not restricted to philosophy, see the website section "About the APS."

Information about all APS programs:

Purpose, scope: Awards are made for non-commercial research only. The Society makes no grants for academic study or classroom presentation, for travel to conferences, for non-scholarly projects, for assistance with translation, or for the preparation of materials for use by students. The Society does not pay overhead or indirect costs to any institution or costs of publication.

Eligibility: Applicants may be residents of the United States, or American citizens resident abroad. Foreign nationals whose research can only be carried out in the United States are eligible. Grants are made to individuals; institutions are not eligible to apply. Requirements for each program vary.

Brief Information about Individual Programs:

Franklin Research Grants:

Scope: This is a program of small grants to scholars intended to support the cost of research leading to publication in all areas of knowledge. The Franklin program is particularly designed to help meet the cost of travel to libraries and archives for research purposes; the purchase of microfilm, photocopies or equivalent research materials; the costs associated with fieldwork; or laboratory research expenses.

Eligibility: Applicants are expected to have a doctorate, or to have published work of doctoral character and quality. Pre-doctoral graduate students are not eligible, but the Society is especially interested in supporting the work of young scholars who have recently received the doctorate.

Award: From \$1,000 to \$6,000.

Deadlines: October 1, December 1; notification in February and April.

Library Resident Research Fellowships:

Scope: The Library Resident Research fellowships support research in the Society's collections. **Eligibility:** Applicants must demonstrate a need to work in the Society's collections for a minimum of one month, and a maximum of three months. Applications are accepted from persons whose normal place of residence is farther away than a 75-mile radius of Philadelphia. Applicants do not need to hold the doctorate.

Stipend: \$2,000 per month.

Deadline: March 1, notification in May.

In collaboration with the British Academy, the APS offers an exchange post-doctoral fellowship for up to three months' research in the archives and libraries of London during 2006. Those interested in applying for this program should use the Franklin application form, specifying the British Academy Fellowship, and **apply by October 1**.

For more information on these and other APS research programs, please see the website:

www.amphilsoc.org/grants

SPECIAL REPORT**WORKSHOP REPORT**
COLOR: 20th-Century Business and
Chemical Technology
Edelstein Center, Hebrew University,
Jerusalem

On April 14, 2005, the Sidney M. Edelstein Center for the History and Philosophy of Science, Technology and Medicine at The Hebrew University of Jerusalem and The Commission on the History of Modern Chemistry held a joint workshop on COLOR: 20th-Century Business and Chemical Technology at the Sidney M. Edelstein Library, the Jewish National and University Library, Jerusalem. The workshop was a simple but impressive example of how to organize an interdisciplinary seminar, bringing together historians, scientists, and economists with shared interests in synthetic dyes and the dye industry. Spread over an afternoon and early evening, the five papers included the history of the dye industry in Germany, Britain and America, the economics of the U.S. dye famine during World War I, and the use of synthetic dyes as agents of transmission in laser technology for enhancing the accuracy of physical measuring techniques. The Edelstein Library was a highly appropriate setting, since the display of several rare books and journals brought to life many of the historical episodes described by the speakers.

The workshop was also intended as a prelude to the 150th anniversary in 2006 of the discovery of the first successful synthetic, or coal tar, dye, mauve. Tony Travis, deputy director of the Edelstein Center, opened the proceedings by drawing attention to the 50th and 100th anniversary celebrations, respectively, in 1906 and 1956 that marked the discovery by the teenaged William Henry Perkin in London of mauve. Its commercialization, based on coal tar, the waste of coal gas works, heralded the foundation of the first high-tech industry. Technology drove scientific developments, in this case in aromatic organic chemistry; by the late 1860s science was repaying its debt with the synthesis of the alizarin, the colorant of the important natural dye obtained from the root of the madder plant. From 1897, the German dye industry was producing synthetic indigo. While the principal 1906 celebrations were held in London, the 1956 celebrations were dominated by events held on a

grand scale at the Waldorf Astoria Hotel in New York, since at that time the United States was the principal manufacturer of synthetic dyes and of the many products, particularly pharmaceuticals, that arose from research into dyes and their intermediates.

Travis explained that the minimal interest so far in marking the 150th anniversary of mauve in 2006 is partly explained by the fact that the dye-making industry is now considered low-tech, polluting, and the source of cancer-causing chemicals. He gave as an example the panic in Britain and other parts of Europe during February 2005 when it was discovered that the red dye Sudan 1, used for coloring solvents and waxes, and a probable carcinogen to humans, had found its way into over 500 food products. Original publications by cancer pioneer Isaac Berenblum, held with the Regina Schoental Archive at the Edelstein Center, were circulated to show that this was a matter of considerable concern even in the 1930s, and the interest, particularly in bladder cancer caused by beta-naphthylamine, led to important developments in the understanding of cancer etiology. Significantly, the major European and U.S. dye-making firms have turned to pharmaceuticals and the life sciences, and nowadays tend play down their heritages in the colorants industry.

Travis then delineated the development of synthetic dyes until 1914, when Germany was the world leader, and BASF the largest chemical corporation, mainly due to the efforts of colorist-chemist Heinrich Caro. When in 1883 Adolf Baeyer at Munich drew the almost correct structure for indigo, in an era far removed from the laboratory hardware and software now available for visualizing structures, he owed much of this tremendous achievement to joint industrial-academic collaboration with Caro, the benzene ring theory, and test tube reactions. This work contributed to Baeyer's Nobel Prize in 1905. German ascendancy based on mastery of organic chemistry, mainly at BASF, Bayer, and Hoechst, was noted, sometimes with concern, elsewhere. Since the mid-1880s, the British chemist Raphael Meldola had warned his fellow countrymen of the dire consequences of losing the dye industry, but dye users cared little, as they were interested in obtaining the best quality dyes at the lowest price, which were those of German make. The outcome was that in 1914 Britain found itself short of the dye intermediates that were now strategic chemicals used for coloration of military uniforms and, more importantly, making explosives. This was also a matter of considerable alarm in the United States, whose less-

studied synthetic dye industry dominated the three following lectures.

Declan O'Reilly, Edelstein Center Senior Fellow, and Travis presented papers that analysed the interrelations between the German and American chemical industries after 1914. O'Reilly presented a detailed exposition based on an important episode in the history of the international synthetic dye industry. He discussed the relationship between the German behemoth I.G. Farben, founded in 1925, and its American offshoot, General Aniline and Film (GAF), a major manufacturer of vat and azo dyes that was sequestered during 1942 by the U.S. government, and released from government control only in 1965 during the Kennedy administration. I.G. Farben was created in the mid-1920s from the leading German chemical companies, BASF, Bayer, and Hoechst, who had seen their assets in the rest of Europe and the United States seized as enemy property in World War I. This property, which comprised production plant, patents and bonds, had been sold to American interests including Grasselli Company. The German chemical industry, because of its unrivalled technical skill, was able to reassert its leadership in the United States and by the late 1920s had been able to reacquire much of the property that had been lost in 1918. Fearful of more complicated tax regimes across the world after 1918 and determined that its foreign property would never again be vulnerable to enemy seizure, I.G. Farben created a series of holding and subsidiary companies across the world. Starting in Switzerland in 1928 it founded I.G. Chemie. The following year Farben inaugurated the American I.G. Chemical Corporation in New York and title to its newly recovered production plant, the General Aniline Works, formerly belonging to Grasselli, was lodged with the New York firm. In both cases the impetus was to gain access to larger foreign capital markets than were available in Germany and at the same time dramatically reduce I.G. Farben's domestic tax liabilities. This was immensely successful and large sums were raised from bonds and share issues in both countries. The shares of the American I.G. Chemical Corporation were sold to I.G. Chemie in Switzerland and the proceeds of the American bond issue were divided between I.G. Farben in Germany and a large portfolio of stocks in prominent U.S. corporations.

However, what had been an open relationship in the 1920s became more complicated with the advent of

the Third Reich. As war became certain so the American government began to divine a sinister aspect to this relationship and in 1942 the U.S. Treasury was instrumental in vesting the newly renamed General Aniline & Film Corporation, which by now had extended its activities to a wide range of chemical goods including photography and fine chemicals. As early as 1937 the new Securities and Exchange Commission was enquiring about the exact relationship between the American I.G. Chemical Corporation and its Swiss parent. No adequate explanation had been forthcoming and this underpinned the Treasury's belief that I.G. Chemie was merely a cloak for I.G. Farben interests. In fact I.G. Chemie had been pressuring I.G. Farben in Germany to end both the dividend and option contract, on the grounds that Nazi currency control rendered them impossible to enforce. Reluctantly, and only after the start of the European war in 1939, did I.G. Farben agree. In 1942 after the seizure of GAF by the U.S. government I.G. Chemie lodged a formal complaint that its property had been sequestered wrongly because it was not an enemy nation but a friendly neutral. Under the Trading with the Enemy Act, which authorised seizure, and a provision of the Fifth Amendment to the United States Constitution, which forbids the sale of confiscated property without access to legal redress during peace time, I.G. Chemie was entitled to sue the U.S. Government for restitution of GAF.

Was the separation between I.G. Farben and I.G. Chemie genuine and therefore were the Swiss entitled to restitution of GAF? Or was it part of a grand conspiracy to 'cloak German domination and control' of valuable international assets? The United States was never able to find the one document that proved the latter, despite capturing vast amounts of I.G. Farben's documents and imprisoning its directors. The American attitude to GAF was simple; it had been legally seized and American ownership was necessary for reasons of national security. The legal deadlock between the United States and I.G. Chemie ultimately came to favour the Swiss because as the cold war progressed so the emotiveness of I.G. Farben's crimes became less, and Switzerland was able to force hearings at both the U.S. Supreme Court and at the International Court at the Hague. In both cases the courts recommended that the litigants seek redress in lower courts in the United States, or alternatively reach some sort of settlement. In the early 1960s, the Kennedy administration, mindful of the old adage that a bad settlement was better than a bad trial came to an agreement with the new owners of I.G.

Chemie, the Union Bank of Switzerland. The UBS, under its dynamic director Alfred Schaefer, was untainted by any association with I.G. Farben and was a reasonable partner for the United States to deal with. GAF was auctioned in 1965 by the American Government under a system of sealed bids. Despite much criticism of the sale, it satisfied two important imperatives: first, American desire to nationalise an important company that had national security implications; and second that the largest part of the proceeds would go to the United States, which would then be used to compensate American victims of World War II who had lost property overseas. These aims were achieved and of a sale price of \$330 million over \$200 million went to the United States.

A different approach to the 20th-century U.S. dye industry was taken by Travis who showed how some American entrepreneurs reacted to the dye shortage created in 1914 by the British blockade of German shipping. The starting point for the Calco Chemical Company, at Bound Brook, New Jersey, was a mix of German textbooks, American academic consultants, and trial-and-error. Later there was access to German patents through the Chemical Foundation. In 1927, further emulating the German way of doing things, Calco opened a dedicated research laboratory. Two years later Calco was absorbed by American Cyanamid, and in the 1930s diversified into sulfa drugs based on dye intermediates, the development of instrumentation, and aminoplastics, particularly melamine. The latter products were technological achievements since they made available the first colored plastics. America had caught up with, and in many sectors, overtaken Germany. The problem of dye shortages in the United States, and American backwardness, as exemplified by the response of Calco, neatly brought the audience to the third paper in which David Genesove of the Hebrew University's Department of Economics and the Centre for Economic Policy Research, London, examined how technology transfer in advanced industrial sectors takes place between economies with divergent industrial skills and experiences, a topic of considerable interest to historians and economists. Genesove outlined an innovative economic model to explain the cost-benefit of hot-housing a new technology with only limited technical experience. The sudden and almost total loss of vital dye imports, previously only available from Germany, due to the British blockade in World War I, forced American

industry to expand its domestic production from a very limited technical base. The 'dye famine' of 1914 offers an interesting opportunity to examine this model, by using American firms' entry into the dye industry to infer the speed by which lagging firms are able to copy an innovators product. The American firms produced much more of the older dyes than the newer ones. The degree by which they favored the older dyes, coupled with the degree to which they produced more profitable dyes (proxied by 1914 dye imports), implies that the expected cost of copying a German dye was 16% lower for each extra year from the dye's 'initial' discovery. This analysis shows that more complex dyes were less likely to be produced.

In the final talk, John E. Golub of AOM Technologies described a recent episode in the history of synthetic dyestuffs following the invention of the laser: their uses as key enablers of science and technology. In 1966 Peter P. Sorokin discovered that organic dyes could form the basis of an optical laser. The outcome was that for nearly three decades organic dye lasers held sway as the only continuously tunable laser source. During that time, a generation of scientists forged a chain that reached: from organic dye material to dye laser light source; to novel spectroscopic measurement techniques; and, finally, to new scientific results. Nobel prizes in physics and chemistry were just some of the recognition this body of work received. The most important dye laser was Rhodamine 6G, a bright orange dye used to generate laser light in the orange and red portions of the spectrum. Rh6G-based lasers led to fundamental tests of quantum electrodynamics at the level of 1 part in 10¹⁴. Also, the world record for short pulse generation was held for about twenty years by a Rh6G-based laser. Within a few years of Sorokin's discovery organic dyes were available to laser scientists for most colors. This fast cycle is undoubtedly due to the fact that the dyes were not discovered so much as *rediscovered*. The laser physics community benefited greatly from the 150-year history of the rhodamines, coumarins, stilbenes, and other organic dyes.

Further Reading

Declan O'Reilly, "I.G. Farbenindustrie A.G., Interhandel and General Aniline and Film Corporation: A problem in international political and economic relations between Germany, Switzerland and the United States, 1929-65," Cambridge Ph.D., 1998.

Anthony S. Travis, *Dyes Made in America, 1915-1980: The Calco Chemical Company, American Cyanamid, and the Raritan River* (2004).

David Genesove
John E. Golub
Declan O'Reilly
Anthony S. Travis

ELECTIONS

The 2005 ballot is located following the candidate biographies. Once again, SHOT is offering on-line balloting through the SHOT website. There are links to the online ballot on the Annual Meeting page, the site map, and the web version of the newsletter. You must enter your membership number when voting online. This is for security reasons only, and your ballot is still anonymous in the results database. Your membership number is located above your name on the mailing label of the newsletter.

You may also return the paper ballot from the printed newsletter. Please note that, as with last year, faxed copies will not be accepted.

CANDIDATE BIOGRAPHIES

Executive Council

Francesca Bray, *University of Edinburgh, Scotland*

My special fields are the history of technology in East Asia, and the politics of everyday technologies (from flush toilets to genetically modified foods) in contemporary California and Europe. I am an anthropologist as well as a historian by training. I began my research in 1973, studying the history of agriculture in China and issues of East Asian agricultural development past and present as a member of Joseph Needham's project on Science and Civilisation in China. I then joined the Centre National de la Recherche Scientifique in Paris, where I was affiliated with the interdisciplinary group Techniques & Culture. From 1987 to 2004 I taught at the University of California, first at UCLA and then at UCSB, punctuated by two years at the Centre for the

History of Science, Technology and Medicine at Manchester University, and I am now Professor of Social Anthropology at the University of Edinburgh. My publications include *Agriculture, volume VI.2 of Science and Civilisation in China* (1984); *The Rice Economies: Technology and Development in Asian Society* (1986); *Technology and Gender: Fabrics of Power in Late Imperial China* (1997); and a co-edited volume, *The Warp and the Weft: Graphics and Text in the Production of Technical Knowledge in China* (forthcoming). I have a long and grateful association with SHOT although I have only been a member for the past few years. *Technology and Culture* published my first article in 1978 (it was on the plow in ancient China and Melvin Kranzberg provided admirably patient and constructive feedback); in 1999 *Technology and Gender* was selected for SHOT's Dexter Prize; Pam Long and Bob Post kindly invited me to contribute a pamphlet on technology in Ming China to their new ASA/SHOT pamphlet series which appeared in 2000; and now I am very honored to have been invited to stand for the SHOT Executive Council.

SHOT is the most friendly, open and socially responsible professional society I have ever belonged to. I particularly admire SHOT's efforts to bring in scholars and perspectives from across the world, and its commitment public scholarship, and to engaging with all levels of actors involved in current technological change. If elected to the Executive Council I would like to work to further expand the society's international membership, particularly in East Asia. The history of technology is still quite marginal there, but this may well change abruptly as China, Japan, Taiwan and Korea all rush to establish themselves as world leaders in biotechnology, information technology and nanotechnology. Given the spatial, financial and cultural challenges of cementing intellectual bonds across such distances, one tactic I have found effective in the past and would like to explore here would be to start a series of small international workshops that would be held in East Asia and co-sponsored by SHOT with local institutions. While some workshops could focus critically and comparatively on new trends in the study of technology in East Asian perspective, others could address hot current issues like the rapid expansion of nanotechnology. Key participants in the workshops would then organize a panel for the SHOT annual meeting; one might also envisage a pamphlet series, perhaps with co-publication in the host country. Such

ventures would, I feel, broaden the scope of SHOT while increasing its public visibility in other parts of the world.

Kakugyo Chiku, *Kanazawa Institute of Technology, Japan*

Kakugyo S. Chiku is Professor of the History of Architecture and of the Cultural History of Technology at Kanazawa Institute of Technology (Japan). He is also serving as rare book librarian and director of libraries at the institute, where he has built up one of the most comprehensive collections of rare books on science and technology in Japan. He received his Dr. Eng. degree from the University of Tokyo in 1984, and was a visiting scholar in MIT's Program in Science, Technology and Society from 1985 to 1987. He has been a SHOT member since 1985 and was the first Asian member to serve on the Advisory Council. His current research focuses on the cultural implications of technological innovation in Japan post-WWII. He has jointly organized research programs with the National Science Museum since 1999, including development of a model curricular structure for graduate teaching in the history of technology. He has also published three bibliographies and bibliographic essays on epochal books in science and technology, and several books on the history and theory of architecture.

If elected to the Executive Council, he would work to increase SHOT membership in Japan and establish links between SHOT and related professional societies in Japan and Asia. Technology Studies are proliferating in this region, and SHOT can contribute to this development. He would also like to promote and help research activities on the history of Japanese technology by non-Japanese researchers within SHOT. This is an under-developed field with great promise.

Pamela Mack, *Clemson University*

I am an associate professor in the History Department at Clemson University. I regularly teach courses in history of American technology and am coordinator of a new STS program. Clemson now has a requirement that every student take a course dealing with Science and Technology in Society, and I am helping faculty from all across the university develop such courses. I started out doing research on the history of the U.S. space program, but my most recent project was a history of Forest Service management of the land at

the Savannah River Site where fuel was made for nuclear weapons. I expect my next project to be a biography of Ruth Patrick, a botanist and ecologist who did pioneer research on pollution monitoring starting in the late 1940s, funded in part by DuPont. I've been involved in SHOT since I was a graduate student a University of Pennsylvania in the late 1970s and served on the Executive Council from 1989-1991.

Because of my work with Clemson's Science and Technology in Society program, I am particularly interested at present in how historians of technology can make their insights accessible to applied scientists, engineers, and citizens. For example, the department of food science, the department of packaging science, and the department of landscape architecture at Clemson have each created their own STS course, and they think they know what they want to teach and aren't very interested in hearing about theory from social scientists. I'm trying to figure out how to convince them that historians of technology have something important to contribute. My other, longer term focus, is on encouraging the crossing of disciplinary boundaries. Ten years ago I served as treasurer for the History of Science Society, and my STS work leads me to an even wider range of fields, from rhetoric of science to environmental sociology (I wish I could bring in rural sociology but the field has just about died out at Clemson).

Ruth Oldenziel, *Eindhoven University, The Netherlands*

Since 1992, I am an Associate Professor at the University of Amsterdam and since 2003 also professor at the Technical University of Eindhoven after receiving a PhD from Yale University in American History. Publications include books and articles in the area of American, gender and technology studies: *The Changing Meanings of Gender and Technology. Engineering in the U.S., 1880-1945* (1992); *'Boys and their Toys in America'* (1997); *Making Technology Masculine* (1999); with Karin Zachmann, *Crossing Boundaries, Building Bridges* (2000); with Nina Lerman and Arwen Mohun, *The History of Technology and Gender Reader* (2003). "Multiple-Entry Visas: Gender and Engineering in the U.S., 1870-1945" won an award issued by the History of Science Society. Currently I am editing with Karin Zachmann a book with the title *Politics of the American Cold-War Kitchen in Europe*, researching for a project 'Islands as Stepping Stones. The Hardware of the American Empire,' and writing an encyclopedia about

the US for a Dutch audience. Trained as an Americanist, I have been involved with SHOT since 1992, selected as an International Scholar, and served on the Robinson Prize, the Nominating, and the Program Committees. As vice-chair of ESF sponsored network 'Tensions of Europe: Technology and the Making of Europe' has taken me into new directions over the past five years, however. The project involves over 200 scholars from 20 countries in the EU, the United States and Russia. In addition, as a regular commentator on American issues for Dutch radio, television and print media, I also have become acutely aware of the challenges that American scholarship and SHOT face in a global world and of the importance of conversing with a non-academic audience.

If selected as member of the SHOT Executive Council, I would help SHOT reaching out to research communities outside the U.S. and to minorities, opening up the society to issues of public history, and fostering firmer links with mainstream historical profession. I have always greatly appreciated SHOT's open and welcoming culture to outsiders. While continuing to nurture this culture, I also like to see the society engage in intellectually robust debates by fostering sustained and vigorous discussions in T&C, smaller international workshops, and annual SHOT program for the long term. Finally, because historians of technology have an important role to play in many contemporary discussions, I would like to help facilitating such outreach.

Leonard N. Rosenband, *Utah State University*

I am a member of the department of history at Utah State University, where I teach economic, labor, and early modern European history. Each of my classes includes extensive discussion of technological change and its consequences, but my department has only recently agreed to the appearance of courses dedicated explicitly to the history of technology in our curriculum. I have written one book, *Papermaking in Eighteenth-Century France: Management, Labor, and Revolution at the Montgolfier Mill, 1761-1805* (The Johns Hopkins University Press, 2000), which will soon appear in French translation. I am currently writing a lengthy comparative history of English, French, and—to an extent—American papermaking in the eighteenth century. This study explores a counterintuitive, but rather frequent problem: how did a technologically backward English trade catch up to

foreign competitors during the Industrial Revolution? I have also published essays in a wide variety of journals and books, such as *Technology and Culture*, *Science in Context*, *The Journal of Economic History*, *Social History*, and *French Historical Studies*. Lastly, I am editing a book with Jeff Horn and Merritt Roe Smith for MIT Press on the international dimensions of the Industrial Revolution.

This is the final year of my term on the Edelstein Prize Committee. Wading through the submissions has taught me that the history of technology is on the brink of some exciting intellectual departures—departures that I believe the Society's Executive Council should encourage. New connections are emerging between the more traditional realms of the history of technology and consideration of the evolution of communications and the fabrication of the built environment. Even the human body, in this age of organ transplants and artificial limbs, has received growing attention as a "technology" subject to a variety of complex interventions and transformations. I believe these fascinating links with neighboring disciplines and topics should be encouraged; equally, I would use my role on SHOT's Executive Council as a bully pulpit to stimulate the attention of publishers to these novel approaches.

Hans Weinberger, *Royal Institute of Technology, Stockholm*

Hans Weinberger is Researcher at the Department of History of Science and Technology at the Royal Institute of Technology in Stockholm. He holds a M.Sc. in Engineering Physics and a Ph.D. in the History of Technology from the same institute. He has done research on the history of radiation protection and the institutionalization of technical research, both topics in a Swedish context. He is currently leading a research project on Swedish neutrality during the Cold War, using the perspective of the history of technology to reinterpret traditional historical accounts of Swedish security policy. He is also involved in the European network/project "Tensions of Europe". He has published two books and several articles. His publications in English include "The Neutrality Flagpole" in Allen/Hecht eds. *Technologies of Power* (MIT Press, 2001); "A Small Medium-sized Great Power in the North" in Kleve, ed. *The Cold War, Military Power and the Civilian Society* (Bodö, 2003); and (together with Helmut Trischler) "Engineering Europe", *History and Technology* 21 (2005). He has been active in SHOT

since 1989. He still vividly remembers his first encounter with a SHOT member – John Staudenmaier in the hotel lobby—watching baseball dressed in a jogging suite in a very laid-back position. He was secretary of the local arrangements committee for the Uppsala meeting in 1992, and has served on the Program Committee (1998-2000) and Travel Grants Committee (2002-2004).

“I would like to work further in making SHOT a truly international society by strengthening the cooperation of American and European scholars but also widening SHOT towards other areas of the globe. Based on my own experience in writing the history of Swedish neutrality, using the history of technology as an analytical wedge, I would also like to encourage the outreach of the SHOT scholarly community towards other historical disciplines and the general public. It is my firm conviction that many modern societal issues and problems need to address the role of technology and that SHOT is in a good position to offer useful analysis and perspectives on processes such as globalization and environmental change. Technologies are – in multiple and complex ways – changing the world. And by virtue of our expertise in understanding technology in society it is our (SHOT’s) responsibility to offer explanation and historical insights.”

Editorial Committee

Glenn Bugos, *Moment LLC and NASA Ames Research Center*

I am president of Moment LLC, a corporate history consultancy, and historian for the NASA Ames Research Center in Sunnyvale, California. My own work has been in the history of recent (post-1960) American and European technology and business, notably on the organizational context of aerospace, biotechnology and information technology. I received my PhD from the University of Pennsylvania in 1988, and have been attending SHOT meetings since 1984. I've been appointed to three SHOT committees, and served on three SHOT prize committees. Like most SHOT members I have published, and done peer review, with a variety of journals. As a trustee of the Business History Conference, I was actively involved in the recent editorial transition at *Enterprise & Society*, when I learned about the future of electronic distribution in academic publishing.

The Editorial Committee finds itself at a moment of transition. The primary job of the Editorial Committee, which remains, is to ensure that all publications bearing the SHOT name meet the high intellectual and ethical standards shared by SHOT's membership. T&C already does a great job presenting the best work in the history of technology, and what I most expect to bring to any discussions about editorial direction is an ear for issues of interest to historians not employed by universities. Even while keeping its focus on these matters of quality and general editorial direction the Committee should, I think, broaden its mission and explore ways to expand and modernize the entire SHOT publications program. To better address the Society's diverse audiences, the Committee should foster the creation of new types of publications. The Committee should ensure that SHOT publications benefit in the shift to electronic distribution, which is the best vehicle for SHOT's international growth. Finally, the Committee should take charge of creating a model for presenting content on the SHOT website that complements and enhances the SHOT print publications. I fully support shifting the focus of the Editorial Committee towards operational oversight of a more inclusive publishing program.

Sungook Hong, *Seoul National University, South Korea*

Since 2003, Sungook Hong has been Associate Professor and Director of the Program in History and Philosophy of Science at Seoul National University, Seoul, South Korea. Before he came to Seoul in 2003, he served a faculty member of the Institute for the History and Philosophy of Science and Technology (IHPST), University of Toronto. He has been a SHOT member since 1994, and was awarded the SHOT's IEEE Life Member's Prize in 1995. Prof. Hong is the author of *Wireless: From Marconi's Black-box to the Aduion* (MIT Press, 2001), which examined the history of wireless telegraphy from Marconi to the triode revolution, and recently published "Man and Machine in the 1960s" in *Techné* (2004). He is currently working on two different projects. His first project is writing a monograph on the history of electrical engineering and technology from 1875 to 1910s, which is scheduled to be finished in 2006, and his second project explores the cultural and social meanings of science and technology in Korea since 1945. As a member of the Editorial Committee, he hopes to bring an international perspective to the group of American and European scholars, and encourage cross-cultural collaborative works.

Nominating Committee

Molly Berger, *Case Western Reserve University*

I am an instructor in the Department of History at Case Western Reserve University, teaching American history of technology and general United States history. I spend most of my time, though, as Assistant Dean in the College of Arts and Sciences where I administer a number of programs. I recently guest edited "The American Hotel," Volume 25 of the *Journal of Decorative and Propaganda Arts*, published by FIU-The Wolfsonian and distributed by MIT Press. I also have a number of published essays and continue to work on the eternally overdue book, *The Modern Hotel in America 1829-1929*. I take a cultural approach to nineteenth and early twentieth-century history of American technology. Despite membership in many professional history societies, SHOT has always been my professional home. I served on the Travel Grant committee and also served as co-coordinator of WITH for several years. I think we should continue to work towards broadening our constituencies by nominating as diverse an elected body as possible and by including representatives from academia and public history, as well as independent scholars. We should also continue to explore interdisciplinary connections as more and more disciplines focus on areas that are central to our field.

Graeme Gooday, *University of Leeds, UK*

Graeme J.N. Gooday is a Senior Lecturer in History and Philosophy of Science at the University of Leeds, UK, where he has taught the history and ethics of technology since 1994. He has held positions at the University of Kent (UK) where he held an IEEE Fellowship, and as a Royal Society/British Academy postdoctoral fellow at the University of Oxford. He is the author of *The Morals of Measurement: Accuracy, Irony and Trust in Late Victorian Electrical Practice* (Cambridge University Press, 2004) and numerous other publications, recently moving to a new focus on gender, expertise and cultures of risk in the history of electrical technologies. A member of the Council of the British Society for the History of Science from 1995-1998, he was subsequently BSHS Treasurer 1998-2002. Having joined SHOT in 1992, he has been a member on the SHOT Committee Dibner Award for Excellence in Museum Exhibits since 2002, serving as Chair in his third year, 2005. He has worked hard for this committee, being a passionate supporter

of museums' work in bringing history of technology to audiences beyond the academy.

Through its impressive publications and prestigious meetings SHOT has clearly become the world's leading organization in the history of technology. Yet David Hounshell's Presidential address to the SHOT 2004 meeting in Amsterdam highlighted the fact that Americans and Western Europeans still quantitatively predominate among SHOT's membership. To serve as truly global organization, SHOT needs to inspire greater participation from African, Asian and Antipodean communities, among others. If I were elected to SHOT's nominating committee, I would work to ensure international representativeness among the nominations to SHOT's committees and offices. I therefore warmly appreciate the invitation to stand for the nominating committee, and, if elected, would dedicate myself with great energy to helping SHOT attain its objectives.

2005 SHOT BALLOT—VOTE HERE

After marking your ballot, detach it and fold it in half, taping it closed at the bottom and sides. **Please affix a first-class stamp** as indicated on the reverse side and mail it to the SHOT Secretary **by October 3, 2005**.

Executive Council

Three-year term—Please vote for three

_____ **Francesca Bray**

_____ **Ruth Oldenziel**

_____ **Kakugyo Chiku**

_____ **Leonard N. Rosenband**

_____ **Pam Mack**

_____ **Hans Weinberger**

Editorial Committee

Five-year term—Please vote for one

_____ **Glenn Bugos**

_____ **Sungook Hong**

Nominating Committee

Three-year term—Please vote for one

_____ **Molly Berger**

_____ **Graeme Gooday**

Your ballot must be postmarked no later than October 3, 2005.

No faxed copies will be accepted.

SHOT
c/o Amy Sue Bix
Iowa State University
618 Ross Hall
Ames, IA 50011

PLACE
STAMP
HERE

Society for the History of Technology
Amy Sue Bix
Iowa State University
618 Ross Hall
Ames, IA 50011

PROPOSED CONSTITUTIONAL REVISIONS

SHOT Officers and members of the SHOT Executive Council have been working to re-examine the SHOT Constitution, with the purpose of clarifying ambiguities, eliminating outdated parts, and bringing the document more in line with current Society practices. The Executive Council of the Society for the History of Technology recommends the following series of changes to SHOT's Constitution. Many thanks to SHOT's former president, Terry Reynolds, who supervised this process of constitutional revision. We will discuss and vote on these amendments at the Business Meeting in Minneapolis scheduled for Saturday, November 5, following the last afternoon session and before the banquet. Please read the proposed changes carefully and remember that if you wish to consult the current SHOT Constitution, it is available on our website at http://www.shot.jhu.edu/About_SHOT/constitution.htm

Summary of Recommended Changes

Article III. Membership

We recommend:

- (1) Addition of "Emeritus" member category: individual members over age 65. We have this category in our dues structure, but have never defined it in our constitution. [Definition would be added to Section 1a]
- (2) Deletion of the phrase "Student Members may remain in this class for not more than five consecutive years". [Section 1a]
- (3) Elimination of the "Sponsor" member category. [Section 1a]

Article IV. Meetings

We recommend:

- (1) Changes in Section 3 that would permit announcement of special meetings of the Society through other means than the SHOT Newsletter, such as a special mailing or various electronic means.

Article V. Executive Council

We recommend:

- (1) Minor modifications in wording of section dealing with Society membership being necessary for service on the Executive Council. [Section 2]

Article VI. Officers

We recommend:

- (1) That Article VI be broken into two articles. One article to deal specifically with the officers, their duties, and their terms of office. A second article to deal specifically with the issue of nominations and elections. Currently these two elements are intermixed, confusing, and non-parallel in structure.
- (2) That the provision in Section 1 allowing the Secretary and Treasurer to be the same person be deleted.
- (3) That Article VI, Sec. 7 be rewritten to limit the President and Vice President/President Elect to only one term (current wording would allow them two terms)
- (4) That the current deadlines in Section 5 relating to nominations and elections be modified to a more realistic timeline and that the timeline be standardized to common units (days before the upcoming annual meeting) instead of mixed units as currently.

- (5) That a new provision be added to deal with the replacement of officers in mid-term. [new Article VII, Section 5]

Article VIII. Committees

We recommend:

- (1) A slight change in Section 1a dealing with the issue of how to handle the resignation of committee chairs. We also recommend making the President responsible for this task rather than the Executive Council, reflecting the fact that the President makes committee appointments in the first place.
- (2) That the section [Section 1d] dealing with the Awards Committee be rewritten to reflect current practice.
- (3) That the category of "Honorary Member" be dropped.
- (4) That the section on the Program Committee [Section 1e] be reworded to better reflect the role and function of that committee.
- (5) A slight modification to Section 5 to clarify that a member of an appointive committee cannot serve on a committee more than two terms consecutively.

Following articles will need to be renumbered to reflect the addition of one extra article above.

The affected articles of the Constitution, as modified with the amendments above, would read as follows (with added text underlined and subtracted text in *italics and brackets*):

CONSTITUTION of The Society for the History of Technology

ARTICLE III--Membership

Section 1. Membership in the Society shall consist of three categories: Individual, Institutional, and International Scholars.

(a) Individual Memberships shall be divided into three classes: Regular, [*Sponsor*], Student, and Emeritus. Regular Members shall be individuals of any nationality engaged or interested in promoting the study of or teaching about the development of technology and its relations with society and culture. Those individuals who became Regular Members of the Society prior to January 1, 1960, are known as Charter Members. [Sponsor Members shall be those individuals who contribute a substantially larger sum annually than do Regular Members for the furtherance of the Society's work.]

Student Members shall be individuals actively engaged in undergraduate or graduate studies related to the purposes of the Society. [*Student Members may remain in this class for not more than five consecutive years.*]

Emeritus Members shall be members of the Society over age 65.

Individual Members of all classes shall enjoy all privileges of the Society including voting, and no special rights or privileges shall derive from the differences in designation.

(b) Institutional Membership shall be divided into two classes: Affiliate and Associate.

Affiliate Members shall be institutions, universities, colleges, libraries, museums, and non-profit or public foundations, which are actively engaged or interested in promoting the objectives of the Society.

Associate Members shall be institutions such as professional organizations and commercial or industrial companies that contribute a substantially larger sum annually than do Affiliate Members for the furtherance of the Society's work.

Institutional Members shall have no voting privileges in the Society.

Section 2. Applications for Individual and Institutional Memberships shall be submitted, together with payment of current dues to the Treasurer or his agent. The acceptance of annual dues by the Treasurer or his agent shall constitute formal recognition of membership.

International Scholars shall be selected in one of two ways. The first procedure will involve selection by a Committee on International Scholars, which shall choose up to seven International Scholars each year from a list of nominees and applicants. Individuals may be nominated by any member of SHOT, or may nominate themselves; notices describing this process will appear in the newsletter and in Technology and Culture. The actual selection shall be made in July.

The second selection procedure shall be the choice of up to three additional International Scholars each year by the president of the Society. The president shall consult the list of nominees used by the Committee on International Scholars, but shall not be required to make selections solely from the list.

Section 3. The annual dues of all categories and classes of Members shall be fixed from time to time by the vote of the Executive Council.

Section 4. Any Members failing to pay dues within sixty days of notification of delinquency shall be considered as having withdrawn from Membership.

Section 5. Each Member in good standing in the Society, of every class and designation, shall be entitled to receive the journal of the Society.

ARTICLE IV - Meetings

Section 1. There shall be an annual meeting of the Members, either within or without the State of Ohio, as the Executive Council may determine.

Section 2. Special meetings of the Members may be called by the President or by five members of the Executive Council, and may be held at such time and place, either within or without the State of Ohio, as may be specified in the notice thereof.

Section 3. A written notice of every annual or special meeting of the Members, stating the time, place, and, in case of a special meeting, the purpose or purposes thereof, shall be published in the Society's Newsletter or printed in a special announcement, which shall be mailed to each Member's address appearing on the records of the Society not less than thirty days prior to the holding of such meeting. Additionally or alternatively, members may be notified within the same time limits via email and/or through the SHOT website and/or other electronic means. If any meeting shall be adjourned to another time or to another place, no further notice as to such reconvened meeting need be given if the time and place to which it is adjourned are fixed and announced at such meetings.

Section 4. The voting Members present at any meeting of the Members of the Society shall constitute a quorum for the transaction of business at such meetings.

Section 5. The act of a majority of the voting Members present at any meeting shall control and shall be deemed the vote of action of the Members of the Society.

Section 6. The Executive Council shall cause to be kept adequate and correct accounts and records of the affairs of the corporation. Except for unreasonable and improper purposes, such books of account and records shall be open for the inspection of any Member at any reasonable time, provided due notice is given.

At each annual meeting of the Members, there shall be a business session for the reports of officers, elections, and other items of business.

Section 7. The fiscal year of the Society shall be established by the vote of the Executive Council.

Section 8. The rules contained in Robert's Rules of Order shall govern the parliamentary procedure of all meetings of the Society, to the extent applicable and not inconsistent with this Constitution.

ARTICLE V - Executive Council

Section 1. The affairs of the corporation shall be conducted by a council designated as the "Executive Council" and the members thereof shall have the authorities and capacities as are given "Trustees" in the Ohio Non-Profit Corporation Law.

Section 2. Only Members of the Society shall be eligible to be members of the Executive Council, and termination of Membership shall *[automatically effect the termination of]* terminate eligibility to be nominated to or be a member of the Executive Council.

Section 3. The Executive Council shall be constituted as follows:

- (a) The officers of the Society;
- (b) Nine elected voting Members serving three-year terms, three to retire and three to be elected annually by mail ballot of all the Members;
- (c) The three immediate past Presidents of the Society;
- (d) The Editor of the Society's journal.

Section 4. Any vacancy in the elective membership of the Executive Council may be filled for the unexpired term by the vote of a majority of the Council then in office.

Section 5. The regular meeting of the Executive Council shall be held at the time and at the place of the annual meeting of the Members of the Society.

Special meetings of the Executive Council may be called by the President or by five members of the Executive Council, and may be held at such time and place as may be specified in the notice thereof. Notice of the time and place of such meetings shall be given at least twenty-one days prior to the meeting.

Section 6. One-third of the members of the Executive Council then in office shall constitute a quorum. Any member has the right to call for a quorum count, and, in the event that a quorum is not present, the meeting is automatically adjourned. The act of a majority of the Council present at any meeting at which there is a quorum shall be the act of the Executive Council.

Section 7. The Members, the Officers and the members of the Executive Council shall not be personally liable for any obligation of the Society.

Section 8. Any action which could be taken by the Executive Council at a meeting called for such purpose may be taken without a meeting by unanimous written approval of the members of the Executive Council.

ARTICLE VI - Officers

Section 1. The officers of the Society shall be a President, a Vice President who is President-elect, a Secretary, and a Treasurer. *[At the discretion of the Executive Council the offices of Secretary and Treasurer may be held by the same person.]*

(a) President. The President shall preside at all meetings of the Members and Executive Council, and shall have such other duties as may be assigned to or vested in such office by the Executive Council or by the Members. The President's term of office shall be two years. The President shall serve no more than one term.

(b) Vice President/President Elect. The Vice President shall perform all of the duties of the President in the event of the absence or disability of the President, shall assist the President when called upon, and shall have such other duties and powers as may be assigned to or vested in such office by the Executive Council or by the Members. The Vice President/President Elect's term of office shall be two years, and normally on the expiration of that term he/she shall become President.

(c) Secretary. The Secretary shall conduct the correspondence of the Society, keep minutes of all proceedings of the Members and Executive Council and maintain a record of the same, and shall have such other duties and powers as may be assigned to or vested in such office by the Executive Council or by the Members. The Secretary, in addition, shall maintain a Manual of Procedures as specified in Article XII.

The Secretary's initial term of office shall be three years. The secretary shall normally serve no more than an additional two year term (5 years total). One year before the end of the Secretary's term, the President, with the advice and consent of the Executive Council, will appoint an ad hoc search committee, which will consist of one member of the Nominating Committee to be chosen by that committee chair, one member chosen by the President, one member of the Executive Council chosen by the President. The Vice-President and the out-going Secretary will serve as ex-officio, non-voting members. The President will appoint the committee chair. This committee will provide the Nominating Committee with a recommendation of one or more persons qualified and able to fill the position of secretary.

(d) Treasurer. The Treasurer or his agent shall collect dues and other moneys received by the Society, keep records of the dues status of each Member, deposit the funds of the Society, make all proper disbursements of the Society's funds, keep adequate and correct records of the Society's business transactions, and have such other duties and powers as may be assigned to or vested in such office by the Executive Council or by the Members.

The Treasurer's term of office shall be two calendar years. The treasurer shall normally serve no more than three consecutive terms (6 years). Under special circumstances, however, the Nominating Committee and the Executive Council may permit an exception to be made. One year before the end of the Treasurer's term, the President will appoint an ad-hoc search committee, which will consist of one member of the Nominating Committee to be chosen by the committee chair, one member chosen by the President, and one member of the Executive Council to be chosen by the President. The Vice-President and the outgoing Treasurer will serve as ex-officio, non-voting members. The President will appoint the committee chair. This committee will provide the Nominating Committee with a recommendation of one or more persons qualified and able to fill the position of Treasurer.

Section 2. The officers of the Society shall serve without compensation. Expenses incurred by officers in the actual service of the Society, with the exception of travel expense to and from and subsistence at annual and special meetings, shall be reimbursed by the Treasurer after approval by the President. Such reimbursement shall be reported to the Members at the annual meeting.

Section 3. The terms of all Society officers shall commence on the first day of January following their election. [Note: Previously this was Section 6]

Section 43. Only Members of the Society shall be eligible to be officers, and termination of Membership shall automatically [effect the termination of] terminate eligibility to be nominated or serve as [and the status as] an officer of the Society.

[Section 4. The President and the Vice President shall be elected by ballot for two calendar years. The Nominating Committee shall submit to the secretary the slate of candidates for elected positions four months prior to the annual meeting. The secretary shall publish the slate of nominations at least thirty days before the ballot is mailed to Members. The ballot shall be mailed at least two months before the annual meeting. Results of the election will be announced at the annual meeting. For the office of President, the ballot shall list the name of the President-elect. For the office of Vice President, the ballot shall list the names of two candidates proposed by the Nominating Committee together with the names of other candidates nominated by petitions signed by at least fifteen Members of the Society.

The secretary and treasurer shall be elected by mail ballot of all the members. The secretary shall serve a term of three calendar years. The treasurer shall serve a term of two calendar years.

One year before the end of the Secretary's term, the President, with the advice and consent of the Executive Council, will appoint an ad hoc search committee, which will consist of one member of the Nominating Committee to be chosen by that committee chair, one member chosen by the President, one member of the Executive Council chosen by the President. The Vice-President and the out-going Secretary will serve as ex-officio, non-voting members. The President will appoint the committee chair.

One year before the end of the Treasurer's term, the President will appoint an ad-hoc search committee, which will consist of one member of the Nominating Committee to be chosen by the committee chair, one member chosen by the President, and one member of the Executive Council to be chosen by the President. The Vice-President and the outgoing Treasurer will serve as ex-officio, non-voting members. The President will appoint the committee chair.

Section 5. For the election of Vice President, members of the Executive Council, and members of the Nominating Committee, nominations may be made by petition of fifteen members of the Society. The consent of the nominee is required, and the petition must be received by the Chair of the Nominating Committee at least seventy-five days prior to the election, so that the name of the nominee can be added to the ballot.

Section 6. The terms of all Society officers shall commence on the first day of January following their election.

Section 7. The secretary shall normally serve no more than an additional two year term (5 years total). The treasurer shall normally serve no more than three consecutive terms (6 years). Under special circumstances, however, the Nominating Committee and the Executive Council may permit an exception to be made. No other officer of the Society shall be elected to succeed himself or herself more than once in such office.

Section 8. (a) President. The President shall preside at all meetings of the Members and Executive Council, and shall have such other duties as may be assigned to or vested in such office by the Executive Council or by the Members.

(b) Vice President. The Vice President shall perform all of the duties of the President in the event of the absence or disability of the President, shall assist the President when called upon, and shall have such other duties and powers as may be assigned to or vested in such office by the Executive Council or by the Members.

(c) Secretary. The Secretary shall conduct the correspondence of the Society, keep minutes of all proceedings of the Members and Executive Council and maintain a record of the same, and shall have such other duties and powers as may be assigned to or vested in such office by the Executive Council or by the Members. The Secretary, in addition, shall maintain a Manual of Procedures as specified in Article XII.

(d) Treasurer. The Treasurer or his agent shall collect dues and other moneys received by the Society, keep records of the dues status of each Member, deposit the funds of the Society, make all proper disbursements of the Society's funds, keep adequate and correct records of the Society's business transactions, and have such other duties and powers as may be assigned to or vested in such office by the Executive Council or by the Members.]

ARTICLE VII -- Nominations and Elections.

Section 1. At least 160 days prior to the annual meeting each year the Nominating Committee shall prepare and submit to the secretary a proposed slate of candidates for elected positions (see Article VIII). The secretary shall publish the Nominating Committee's slate of nominations either electronically or in the Society's Newsletter at least 135 days prior to the annual meeting.

Section 2. Nominations for Vice President, the Executive Council, the Editorial Committee, and the Nominating Committee may also be made by petition of fifteen members of the Society. The consent of the nominee is required, and the petition must be received by the Secretary and the Chair of the Nominating Committee within 21 days of the earliest publication of the proposed slate, so that the names of petition nominees can be added to the ballot.

Section 3. The secretary shall prepare and mail ballots to the membership at least 60 days before the annual meeting. Alternatively, ballots may be published in the SHOT newsletter. Additionally or alternatively, ballots may be available for online voting through the SHOT website, starting from at least 60 days before the annual meeting.

Section 4. Results of elections will be announced at the annual meeting.

Section 5. Should any officer be unable or unwilling to stand for office, serve in office, or complete a term of service, the Executive Council shall prescribe procedures to fill the vacancy.

ARTICLE VIII - Editor

ARTICLE [VIII] IX - Committees

Section 1. The Standing Committees of the Society shall be Nominating Committee, Editorial Committee, Finance Committee, Awards Committee, Program Committee, and Committee on International Scholars.

(a) The Nominating Committee shall be comprised of five Members of the Society, three elected by mail ballot of all the Members, plus the immediate past-president and the SHOT secretary as a fifth, non-voting member; elected members shall serve three-year terms in rotation. If a tie vote cannot be reconciled, the

Committee may invite the secretary to vote or shelve the candidate in question. The President shall appoint the Chair of the Committee from among its members: the chair will normally rotate automatically to the elected member in his or her second year on the Committee.

The Nominating Committee will put forward each year:

- at least two names for each position open on the Executive Council;
- at least two names for each elected position open on the Nominating Committee;
- at least two names for each position open on the Editorial Committee;

The Nominating Committee will put forward in even-numbered years the name of the President-Elect for the position of the President and at least two names for the position of Vice-President/President-Elect. The Nominating Committee will put forward in the appropriate years the name of at least one person for the position of Secretary and one for the position of Treasurer.

To assist the Nominating Committee in identifying appropriate candidates for Editor, Treasurer, and Secretary, the President shall appoint ad-hoc search committees at appropriate times. These committees shall be considered as sub-committees of the Nominating Committee and shall report the results of their work to the chair of the Nominating Committee.

Before renominating a person as Editor, Treasurer, or Secretary, the Nominating Committee shall solicit a brief performance evaluation of that officer. The Editorial Committee shall provide this evaluation for the Editor; the Finance Committee shall provide this evaluation for the Treasurer; the Presidents under which he/she has served shall provide this evaluation for the Secretary.

[Should any officer or committee member of the Society be unable or unwilling to stand for office, serve in office, or complete a term of service, the Executive Council shall prescribe special election procedures to fill the vacancy]. If the chair of any committee resigns or is otherwise unable to complete his/her term or composition of any committee falls out of consonance with this Constitution, the [Executive Council] President shall take such steps as [it] he/she deems proper to secure a new chair and/or bring the composition back into compliance.

(b) The Editorial Committee shall consist of five members elected by ballot in addition to the Editor of the Society's journal. The members of the Editorial Committee shall serve staggered terms of five years. The President shall annually appoint the Chair of the Committee from among its elected members. The Committee shall consult annually with the Editor of the Society's journal and with its advisory editors and shall report to the Executive Council at each year's annual meeting on all SHOT publications appearing during the previous twelve months. The Committee shall advise the Executive Council in cases of editorial grievances filed with the Council and shall perform such other tasks as the Executive Council may direct

(c) The Finance Committee shall consist of three members in addition to the Treasurer appointed by the President and shall serve three-year terms in rotation, one member being added and one retiring each year. The Chair of the Committee shall be appointed by the President. The Committee may choose not more than three additional members to serve on the Committee for one-year terms. The Finance Committee shall oversee the finances and business of the Society, and shall represent the Society in all dealings with individuals and foundations for the purposes of securing funds for the projects and activities of the Society.

(d) The Awards Committee shall consist of a Chair, who will normally be the most immediate past president, [chosen by the President] and the chairs of the Awards Committee's subcommittees. *[designated by the Society to nominate winners of its various awards. Subcommittees shall be appointed for the Dexter Prize, Usher Prize, Levinson Prize, Robinson Prize, and such other prizes and awards as the Society shall create from time to time. The President shall appoint members and chairs to the various subcommittees].* The Awards Committee, *[acting on the recommendations of its subcommittees, shall nominate persons to the*

Executive Council to receive annual awards. The Awards Committee] shall [also nominate] recommend to the Executive Council candidates for [Honorary Membership and persons to receive] the Leonardo da Vinci

Medal. There will be an Awards subcommittee for each of the Society's prizes and awards. The President shall appoint members and chairs to these subcommittees, and these subcommittees will recommend to the Executive Council candidates for the Society's awards and prizes.

(e) The Program Committee shall consist of three members appointed by the President, one of whom shall be the immediate past Chair of the Program Committee, another the current Chair of the Program Committee, and the third the Chair-designate. *[The Program Committee shall have charge of arrangements for the annual meeting and any special meetings of the Society, and for any other programs sponsored by the Society.]*

The Program Committee shall have charge of arrangements for the program of the annual meeting, in cooperation with SHOT officers, the Executive Council, and the local arrangements committee. At the President's discretion, the Program Committee may also work on preparing any special meetings of the Society and any other programs sponsored by the Society.

(f) The Committee on International Scholars shall consist of four members including a chairperson, all appointed by the President. Committee members shall serve staggered four-year terms, one member retiring and another being added each year. The Committee shall be responsible for developing a list of potential International Scholar appointees from nominations and applications of historians of technology working outside the United States. The Committee shall select up to seven appointees each year from this list and provide both this list and the Committee's nominees to the President of the Society.

Section 2. The Executive Council may from time to time establish other committees, defining their membership, powers, scopes, and responsibilities as it deems proper.

Section 3. The President of the Society shall appoint the members of all committees, except those whose members are elected as specified by this Constitution.

Section 4. All committees shall prepare an annual report for submission to the Executive Council in time for the annual meeting.

Section 5. Any member of an appointed committee may be reappointed for no more than one additional consecutive term. *[to membership on an appointed committee.]*

ARTICLE IX. International Scholars

ARTICLE XI -- Special Interest Groups and Local Sections

ARTICLE XII. Society Procedures

ARTICLE XIII - Amendment of Constitution



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