On September 20, 2005, SHOT member Emily Thompson was announced as one of twenty-five new MacArthur Fellows chosen for 2005. The MacArthur Foundation selects its Fellows for their creativity, originality, and potential. Emily Thompson is an associate professor of history at the University of California, San Diego. She is an aural historian, whose work has touched on everything from urban design to cinema studies.

This award is above all a tribute to Emily's ability, creativity, and determination. But all of us in SHOT should take pleasure and pride in her MacArthur Fellowship: it brings honor and attention to our field. Congratulations, Emily!

For more on Emily's research and award, please see: http://www.macfound.org/programs/fel/fellows/thompson_emily.htm

SECRETARY'S MESSAGE

What a thrill it was to open the *New York Times* and scan the article listing the newly-selected MacArthur Foundation Fellows, only to find a familiar SHOT name – Emily Thompson, of UCSD! To the best of our current officers' knowledge, this MacArthur award for one of our own historians of technology is a first. Nothing compares to the national recognition of the MacArthurs, of course, but it was sweet to know that SHOT had recognized the strength of Emily's work even before this. I won't go into detail here, in case this newsletter reaches you before the Minneapolis meeting, but keep an eye open for our official list of prizewinners in the January newsletter. The monetary value of SHOT prizes is a few decimal places removed from the MacArthurs, but the meaning of these awards lies in our community enjoying the chance to honor its own.

For many of us, I know, one of the main strengths of SHOT is the way we recognize and remember the strongest conference papers, articles, books, and now edited volumes (or other media) in our field. Coming up to our fiftieth anniversary, it is exciting to review the lists of previous prizewinners to appreciate how much excellent research has been done and yet how many new avenues of knowledge SHOT members are still just beginning to explore in depth.

In This Issue

Society for the History of Technology
Society Office:
History Department
603 Ross Hall
Iowa State University
Ames, IA 50011
Phone: 515-294-8469
Fax: 515-294-6390
Email: shot@iastate.edu
Website: http://www.shot.jhu.edu

Officers
President: Rosalind Williams
Vice-President/President-Elect: Steve Usselman
Secretary: Amy Bix
Treasurer: Richard Hirsh

For Change of Address, Membership Information, and Journal Delivery Queries
Please contact Carla Hubbard, Journals Division,
Johns Hopkins University Press, 2715 N. Charles St.,
Baltimore, MD 21218, USA
Phone: 410-516-6964
Fax: 410-516-6968
Email: cdh@mail.press.jhu.edu

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

When I was a graduate student, some of the first *Technology and Culture* articles that my advisor, Bill Leslie, gave me to read were "What Hath SHOT Wrought and What SHOT Hath Not," "What Did We Expect SHOT to Wrought?" and "Let's Not Get Wrought Up About it." (all, of course, from the twenty-fifth anniversary issue, October 1984). In those pieces, John Staudenmaier S.J., John Rae, and Mel Kranzberg surveyed, analyzed, praised and critiqued the main directions of history of technology work. They underlined the need for more research in areas such as technology and labor, women and technology, and non-Western technology.

Our golden anniversary provides all of us with an invaluable opportunity to revisit these classic essays and consider how our field has grown and changed since these three scholars examined it. For instance, as John and Mel predicted, the study of gender and technology has attracted significant attention in recent years.

Yet in addition to reflecting on the past, our anniversary means even more as a chance to look at where we are headed today and tomorrow. We need to celebrate and encourage the exciting work currently being done in history of technology, in both old and new directions. There are the places where SHOT research intersects with other fields, such as environmental history, as in the research of Tom Zeller, Sara Pritchard, Ed Russell, and many others. Other scholars, such as Rayvon Fouche and Amy Slaton, are re-examining the history of technology through the lens of race. There was the standing-room only panel in Atlanta where Deborah Fitzgerald, Gabriella Petrick, and Shane Hamilton unpacked the concept of industrial food. Other researchers extend new perspectives into familiar fields – the January annual meeting of the American Historical Association will include two panels on the history of American military technology, organized by Bart Hacker and cosponsored by SHOT and the U.S. Commission on Military History.

To many of us, one of the most exciting areas of research and commanding special attention is internationalization. Beyond current work on American and Western European history, done primarily by scholars living in those areas, SHOT is particularly interested in supporting research in and about the history of technology in Asia, Africa, Eastern Europe, Latin America, and elsewhere. Some of the most stimulating

energy in our field in the near future may be generated by the groundbreaking work of scholars such as Gabrielle Hecht and Clapperton Mavhunga on Africa, Karen Freeze on Central and Eastern Europe, Paul Josephson on Russia, Francesca Bray on China, or Miwao Matsumoto and Takehiko Hashimoto on Japan. That's why it will be a real joy to stretch our anniversary celebration over not one but two conferences, meeting in Washington, D.C. in 2007 and in Lisbon in 2008.

Our anniversary will be a success to the extent that our community of scholars can engage in careful, constructive, wide-ranging discussion about the intellectual and social directions of our field. Please see

Roz William's president's column in this newsletter to find out more about how you can give us input on planning our anniversary. We hope to mark the occasion by displaying the strength of our current research, exchanging ideas for future growth, connecting with scholars from related fields – and having a few fabulous parties while we're at it!

Amy Sue Bix
Iowa State University

It is with sadness that SHOT notes the death of David Dibner on September 28, 2005. David was a kind and generous person, an advocate and enthusiast for the history or science and technology, and a friend and supporter of SHOT. David's interest in the history of technology and engineering meant a lot to us over the years, as did his commitment to research in the field. We will be printing a memorial for him in a forthcoming issue of *T&C* and the January 2006 newsletter.

SOCIETY NEWS

SHOT Election Results

Executive Council:

Francesca Bray
Hans Weinberger
Pamela Mack

Nominating Committee:

Graeme Gooday

Editorial Committee:

Glenn Bugos

NEWS OF MEMBERS

Jim Fleming (Colby College) has been named the Charles A. Lindbergh Chair in Aerospace History at the Smithsonian Institution's National Air and Space Museum for 2005-06. Jim proposes to bring "air'" to the Air and Space Museum as he works on a history of meteorology in the 20th century.

The University of Minnesota would like to announce the appointment of **Tom Misa** as new Director of the Charles Babbage Institute and Center for the History of Information Technology, and Professor in the Program for the History of Science and Technology.

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/

Developments at the National Science Foundation

In recent months the National Science Foundation's Science and Technology Studies Program (STS) has undergone some changes. That program has now merged with a separate, but closely related program, the Societal Dimensions of Engineering, Science and Technology, to form a new program called Science and Society. The new program retains all components of the two previous programs, as well as the separate program officers and advisory panels. Ronald Rainger remains in charge of all proposals and the advisory panel for History, Philosophy, and Social Studies of Science and Technology, while Priscilla Regan is in charge of all proposals and the advisory panel for Ethics and Values Studies and Science Policy. In addition, John Perhonis oversees doctoral dissertation improvement proposals for the entire program. The Science and Society Program retains the combined budgets of the two former programs and will have approximately a six-milllion dollar budget for the upcoming fiscal year. The program also provides greater visibility for historical, philosophical, and social studies of engineering, and the term engineering is now explicitly included in all components of the program.

One reason for developing the new program is to take advantage of many new initiatives that now exist at NSF. Above and beyond the individual programs, the agency has developed numerous interdisciplinary (what NSF calls cross-cutting) initiatives. Those initiatives, which include Human and Social Dynamics, Nanotechnology, and the Integrative Graduate Education and Research Trainee Program (IGERT), are important priority areas that offer additional, exciting opportunities for the members of our community. Other program officers within NSF are generally in charge of those competitions, and I am not always aware when members of our community have submitted proposals. I encourage you to apply to those competitions, and I would also recommend that you inform me that you have applied, send me a copy of your proposal, and include a list of suggested reviewers. If I am aware that someone in our community has a pending application, I will do everything that I can to ensure that the proposal is evaluated by appropriate reviewers and panel members. I hope you will take advantage of these important opportunities. The Science and Society website includes links to a number of those programs,

and I encourage you to contact me or other program officers with any questions or suggestions that you may have about NSF. The website address is

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

Or you can access the website by going to the NSF homepage. On the first screen go to first drop down menu on the left, click on Social, Behavioral, and Economic Sciences. On the next screen click Social and Economic Sciences on the left side of the screen, and then on the next page scroll down to the Science and Society Program and click on that to open our webpage.

For more information contact:
Ronald Rainger
Program Officer
Science and Society Program
National Science Foundation
rrainger@nsf.giv
703 292-7283

In Progress: A Volume of Envirotech Essays

The Envirotech SIG is proud to publicize the development of a book of essays about the intersection of environmental history and the history of technology. This field conceives of the border between nature and technology as a complex, socially constructed area that shifts geographically, culturally and temporally. Co-editors Marty Reuss and Steve Cutcliffe have drawn together historians known to many members of SHOT and the American Society for Environmental History (ASEH). University of Virginia Press has contracted to publish the volume (acquisitions editor Boyd Zenner), and the editors hope that the National Science Foundation will fund an authors' workshop in June 2006.

The book was developed through discussions at the "Environment and Technology" breakfasts held at ASEH and SHOT meetings last year, and through the envirotech listserv. It features essays describing the breadth and variety of the history of environment and technology, including the natural causes of pollution, our development of animals as technology, the technology of agriculture, and large-scale landscape transformation. In addition, an editors' essay describes a future for the field, and Jeffrey Stine and Joel Tarr have incorporated recent literature into their historiographical essay that appeared in T&C.

Contributors include Peter Coates, Craig Colten, Sarah Elkind, Mark Fiege, Fekri Hassan, Joy Parr, Ed Russell, Ann Vileisis, and James Williams.

Envirotech, a special interest group of SHOT, is co-chaired by Betsy Mendelsohn and Joy Parr. Please visit our website at http://www.udel.edu/History/gpetrick/envirotech/

2005-06 Hagley Research Seminar Series

The 2005-06 research seminar series of the Hagley Museum and Library meets Thursday evening at 6 p.m. in the Copeland Room of the library building. Papers are all unpublished works in progress and are circulated in advance to seminar participants. To join the seminar mailing list and obtain copies of the papers, contact Carol Lockman at clockman@hagley.org or 302-658-2400.

Oct. 20	James Gilbert, University of Maryland "Fair Itineraries: Experience, Memory, and the History of the 1904 Louisiana Purchase Exposition."
Dec. 15	David Witwer, Lycoming College "The Hollywood Case: Racketeering in the 1930s from a Business Perspective."
Feb. 23	Ann Johnson, University of South Carolina "Surveying the Nation: Engineers, Surveyors, and the American Landscape in the Early Republic."
April 27	Lisa Tolbert, University of North Carolina at Greensboro "Women's New Hangout: Self Service and the Re-invention of the Southern Grocery Store in the early 20th Century."

The Hagley Museum is located just north of Wilmington, Delaware. The library building is accessed from the entrance on Buck Road and Route 100, one traffic light north of the Route 100 and Route 141 intersection. Go to www.Hagley.org for more detailed directions.

WORKSHOPS

Locating Engineers: Education, Knowledge, Desire
International Network for Engineering Studies (INES) Workshop

Virginia Tech, Blacksburg, Virginia, USA
September 10-13, 2006
Deadline for manuscript proposals: December 1, 2005
Notification of acceptance: January 15, 2006
Deadline for completed draft manuscripts: July 1, 2006

INES workshop website:
www.inesworkshop.sts.vt.edu
Reform in engineering education has become an object of intense interest and desire in countries throughout the world. What is at stake in the contents of education for engineers, and for whom?

This first workshop of the International Network for Engineering Studies (INES), sponsored by the U.S. National Science Foundation and Virginia Tech, will bring together researchers on the history, social and cultural studies, and philosophy of engineering education to address these questions by placing them in wider historical and cultural contexts

How have the social, political, and epistemological issues involved in locating engineers varied across space and time? What have been key struggles in different countries? What have been the implications of outcomes in engineering education for emerging national identities as well as transnational projects ranging from industrial capitalism to globalization? What have been the implications of engineering education for emerging sciences and technologies? What relations have emerged

between what counts as engineering and who counts as engineers?

This three-day workshop will employ a unique format of focused discussion around 16-18 previously-drafted papers in order both to bring together researchers working on these topics in different countries and to identify critical issues and opportunities for further research. The workshop will provide travel subsidies and defray local expenses for participants contributing manuscripts. The NSF award includes travel and local expenses for up to four Ph.D. students from other U.S. institutions, including students who are not contributing manuscripts but would otherwise benefit from attending, and with special encouragement to students from underrepresented minorities.

Plans for dissemination include a coordinated set of publications in 3-4 journals, web-based video/audio streaming and transcripts to inform scholars not able to participate, and an edited book collection

See the workshop website for more detailed information: www.inesworkshop.sts.vt.edu
The International Network for Engineering Studies was born in August 2004 in Paris, France, and currently has more than 160 members. The organization has three purposes: (a) to advance research in historical, social, cultural, and philosophical studies of engineers and engineering; (b) to build a visible international community of researchers interested in engineering studies; and (c) to draw upon research in engineering studies to contribute to public discussions and debates about engineering education and policy.

INES expects to hold a second workshop in Taiwan in Fall 2007 around the topic of engineers and the workplace and a third workshop in Portugal in Fall 2008 (prior to SHOT 2008) around the topic of engineers and technology.

INES members also work collaboratively within and between existing professional societies to advance work in engineering studies

An INES website is forthcoming.

FELLOWSHIPS & GRANTS

Bakken Fellowships and Grants

Each year, the Bakken Library and Museum of Electricity in Life offers Visiting Research Fellowships and Research Travel Grants to facilitate research in its collection of books, journals, manuscripts, and instruments. **Visiting Research Fellowships** up to a maximum of $1,500 are to help defray the expenses of travel, subsistence, and other direct costs of conducting research at The Bakken. The minimum period of residence is two weeks. Preference is given to researchers who are interested in collaborating with The Bakken on exhibits or other programs. The deadline for visiting research applications is **February 20, 2006.**

Travel Grants up to a maximum of $500 (domestic) and $750 (foreign) are to help defray the expenses of travel, subsistence, and other direct costs of conducting research at The Bakken. The minimum period of residence is one week**.** Application may be made at any time during the calendar year; there are no deadlines.

For information about the focus and extent of the Bakken collections, go to www.thebakken.org and click on "Library" or "Research" on the home page. For application guidelines or further information, please contact:

Elizabeth Ihrig, Librarian
The Bakken Library and Museum
3537 Zenith Avenue So.
Minneapolis, MN., 55416, U.S.A.
Phone 612-926-3878 ext. 227
Fax (612) 927-7265
Email Ihrig@thebakken.org

Pennsylvania Historical & Museum Commission Scholars in Residence Program

The Pennsylvania Historical and Museum Commission invites applications for its 2006-2007 Scholars in Residence Program, including applications for collaborative residencies. The Scholars in Residence program provides support for up to eight weeks of full-time research and study in manuscript and artifact collections maintained by any Commission facility, including the Pennsylvania State Archives, The State Museum of Pennsylvania, and twenty-five historic sites and museums around the state. Collaborative residencies fund original analytic and/or synthetic research that relates to the interpretive mission and advances the programmatic goals of a PHMC program or facility, including the agency's historic sites and museums. A collaborative residency application must be filed jointly by the interested scholar and host program/facility.

Residency programs are open to all who are conducting research on Pennsylvania history, including academic scholars, public sector professionals, independent scholars, graduate students, educators, writers, filmmakers, and others. Residencies may be scheduled for up to eight weeks at any time during the period May 1, 2006 -- April 30, 2007; stipends are awarded at the rate of $375 per week. For a full description of the residency program and application materials, as well as information about Commission research collections, go to the PHMC web site: www.phmc.state.pa.us. You may also write: Scholars in Residence Program, Bureau of Archives and History, Pennsylvania Historical and Museum Commission, Commonwealth Keystone Building – Plaza Level, 400 North St., Harrisburg, PA 17120-0053; or call: 717-787-3034; or email: RA-PHMCScholars@state.pa.us .

Deadline for application is **January 13, 2006**. Notification of awards will be made in late March.

The Commission does not discriminate on the basis of sex, race, creed, age, sexual orientation, national origin, or disability. Individuals with disabilities who require assistance or accommodation to participate in this program should contact the Commission at 717-787-3034 or the Pennsylvania TDD relay service at 800-654-5984 to discuss their needs.

INSTITUTE FOR ADVANCED STUDIES ON SCIENCE; TECHNOLOGY AND SOCIETY (IAS-STS), GRAZ - AUSTRIA

IAS-STS Fellowship Programme 2006-2007

The IAS-STS in Graz, Austria, promotes the interdisciplinary investigation of the links and interactions between science, technology and society, technology assessment, as well as research on the development and implementation of socially and environmentally-sound technologies. For this the IAS-STS invites researchers to apply for a stay between 1 October 2006 and 30 June 2007 as

- Research Fellows (up to nine months) or as
- Visiting Scholars (up to one month)

We also encourage senior scientists - working within the framework of the issues listed below - to apply as

- Guest Lecturers.

The IAS-STS offers excellent research infrastructure. Close co-operation with researchers at the IFZ (Inter-University Research Centre for Technology, Work and Culture; see: www.ifz.tugraz.at), guest lectures, workshops and conferences provide an atmosphere of creativity and scholarly discussion.

Furthermore we can offer five grants (EUR 1,000 per month) for long term Fellows (nine months) at the IAS-STS:

The fellowship programme 2006-2007 is dedicated to projects investigating the following issues:

1. Gender – Technology – Environment
Women with their various interests, competencies and potentials play an important part in the process of shaping socially sound and environmentally friendly sustainable technologies – be it as users and consumers, or as experts. Applications should focus on research in the field of women in traditionally male fields of engineering, on ways of creating cultures of success for women engineers (students, graduates), and on masculinity and the culture of engineering.

2. Ethical, Legal and Social Aspects of Human Genetics and Biotechnology
A main focus of the fellowship programme lies on research projects providing a better understanding of human genetics or biotechnology in the context of fabrication, application and regulation. Researchers investigating socio-cultural aspects of genetic testing or risk issues in biotechnology are especially encouraged to apply.

3. Technology Studies and Sustainability
Fellowships will be awarded for research projects contributing to the issue of sustainable development from the perspective of social studies or the history and philosophy of science and technology. Projects should aim at socio-economic aspects of environmental technologies or at strategies of environmental technology policy, such as user participation, strategic niche management or ecological product policy. We encourage both theoretical analysis as well as empirical case studies and implementation research.

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4. Information and Communication Technologies
A focus of the fellowship programme will be put on novel developments based on information and communication technologies (ICT) from an STS point-of-view. Topics like embedded systems, ubiquitous computing or ICT applications in traffic systems shall be analysed with respect to their wider social and political implications. Further issues of interest are the social shaping of new ICT developments and participative approaches to the design of ICT systems and applications.

Applications must be submitted to the IAS-STS by 31 December 2005.

For application forms and further information:
Please visit our website: www.sts.tugraz.at

Institute for Advanced Studies on Science, Technology and Society (IAS-STS)
Attn. Guenter Getzinger
Kopernikusgasse 9
8010 Graz – Austria
E-mail: info@sts.tugraz.at

PRESIDENT'S MESSAGE

Rosalind Williams

When was SHOT born? Was it when Mel Kranzberg and a few like-minded colleagues met in Ithaca, New York, in June 1957, encountering such a hostile reaction from the then-president of the History of Science Society that walking away from the meeting Mel exclaimed, "By God, we're just going to have to start our own society and our own journal"? Or was it the following year, when the Society was incorporated in the state of Ohio in May 1958 and held its first annual meeting at the Smithsonian in December 1958? Or when the first volume of *Technology and Culture* appeared at the end of 1959?

Whatever the details of its creation, we can agree that SHOT is "a clear product of the juxtaposition of HSS, SHOT, and engineering education in the late 1950s."[1] And, I would add, by way of context (our favorite word again!) a product of the celebration of technological progress that has its roots in the Enlightenment and that is a dominant feature of the Cold War period in the United States. (Between the discouraging June meeting in Ithaca and the official founding of SHOT in 1958, Sputnik was launched in the October sky of 1957.)

SHOT will soon be celebrating its 50th anniversary in a very different context. Our founders gave us a winning hand when they decided on "technology" rather than "engineering" as the keyword of the Society's identity. In the early years of this new millennium, "technology" has become a keyword for everyone, the common denominator of historical thinking: this is a technological age (we hear every day)and we live in a technological world. And technological progress? Belief in this certainly endures, but now technology is at more often associated with "change" and "innovation"—not at all the same thing as progress—and more ominously with "risk" or even "terror." Waves of hope and fear may cut across each other, but the shared belief is that "technology" is the ocean in which we are swimming.

SHOT approaches age 50 in a world where the big questions we ask—above all questions about the relationship between historical and technological change—are also being asked by many people beyond the academy and beyond our national, ethnic, and cultural roots of Cold War America. So in celebrating SHOT's 50th birthday, we have to look beyond SHOT. In the late Fifties the most significant connections for historians of technology were those with the history of science and engineering education. In the early 2000s these are just as important as ever—but in addition, historians of technology are interacting with many others: lawyers wrangling with IT issues; emergency workers coping with the breakdown of technological systems; citizens in the developing world struggling with the so-called "digital divide"; filmmakers seeking to express the human experience of living in a technological world; business people trying to understand the intertwining processes of innovation and regulation; librarians, journalists, physicians….

Any of us could add to this list—and this is precisely what the organizers of the SHOT 50th celebration want you to do.[2] The theme of the event is "Looking Back, Looking Beyond," which nicely captures the dual purpose of the celebration: to honor our founders, who rose to the challenges of their time, and also to accept the challenges of our time. We look back to honor SHOT, while also looking beyond, recognizing that the contribution of the history of technology to civilization is larger than any single Society.

In this dualistic spirit, the celebration will be spread out over two years. SHOT members will emphasize "looking back" at the annual meeting in Washington D.C. in 2007 (Washington was the site of so many early activities and of a crucial and long-enduring connection with the Smithsonian Institution). We will stress "looking beyond" at the annual meeting in Lisbon in 2008 (European connections having become so important in the evolution of SHOT towards a more global identity).

[1] Bruce Seely, "SHOT, the History of Technology, and Engineering Education," Technology and Culture, Vol. 36, No. 4 (October 1995): 771. Seely's article makes it clear that the answer to the second sentence of this column is "no." Robert Post notes that Kranzberg's papers at the Smithsonian reveal that SHOT was beginning to take shape in his mind by 1956, if not earlier.

[2] The co-chairs of the 50th Anniversary Committee are Steve Cutcliffe and Robert Post. Members of the committee are Hans-Joachim Braun, Ruth Schwartz Cowan, Deborah Douglas, Art Molella, Bruce Seely, and James Williams.

The SHOT 50th anniversary committee (or subsections thereof) has met several times already and has accomplished a great deal in planning themes, programs, and activities. This is going to be one the hardest-working committees in SHOT history, because the scope of its charge is at once so broad (sum up 50 years of incredibly varied and stunningly successful accomplishments!) and involves so many details (which auditorium can we secure for a keynote speech in Washington two years hence?). Co-chairs Steve Cutcliffe and Bob Post, along with all the other members, appeal to you as SHOT colleagues to help them with high concept and low detail and everything in between. This is the time when plans are still emerging, and so it is the time when your interventions can be especially productive.

At the November meeting in Minneapolis, one of the Saturday morning general interest sessions is being organized by the 50th anniversary committee. At this session, chaired by Steve and Bob, the committee will report on activities to date and most of all hear your ideas and reactions. If you are unable to attend, you should contact Bob and Steve by email (rpost@shore.intercom.net and shc0@lehigh.edu) to add your ideas to the mix and, even better, to volunteer for some part of the planning. Hard work, which mixes labor and thinking, is often a source of deep satisfaction and pleasure. The more you contribute now of your time and ideas, the more you will enjoy and appreciate the anniversary in 2007-08. Think ahead: think now about how SHOT should celebrate; think about how you want to get involved; and communicate your thoughts to Steve and Bob.

SIG NEWS

SHOT is interested in trying to revitalize the old **Technology Education Special Interest Group**, to bring together members of SHOT who are interested in how the history of technology and its related topics and fields are taught at all levels of education. As part of SHOT's annual meeting in Minneapolis, on Saturday, Nov. 5 from 9:00 to 10:00 a.m., there will be a special session focusing on teaching the history of technology. If you cannot attend that session but are still interested in becoming part of a new SIG focused on issues and ideas about teaching the history of technology, please contact the SHOT office at shot@iastate.edu

RECENT PUBLICATIONS

Indiana University Press announces publication of ***The Dream of the Perfect Child*** **by Joan Rothschild.** *The Dream of the Perfect Child* is the first book to place current practices of prenatal diagnosis into historical, cultural, and ideological contexts, deconstructing the discourse through changing scientific, cultural, and historical moments. Not a matter of conspiracy or plot—as "brave new world" alarmists would have it—the dream of the perfect child arises today in reproductive medical practice, as individual decisions about prenatal diagnosis select and begin to rank which fetuses, and therefore which children, are acceptable or not, reinforcing negative attitudes toward people with disabilities, and setting standards for the perfect. The book places these decisions within the history of negative attitudes and practices toward people with disabilities from the 18th century to the present, as the striving for human perfectibility produced an underside of negative images and eugenics. Today, molecular biology and prenatal diagnosis technologies combine to produce the tools for negative genetics to enter reproductive medical practice, and for the discourse of the perfect child to emerge. Drawing on counter-voices from medicine, pregnant women, people with disabilities, and from feminist ethics, *The Dream of the Perfect Child* seeks alternative discourses to change reproductive medical practice and thereby transform the dream.

Thomas Lekan/Thomas Zeller (eds.), *Germany's Nature: Cultural Landscapes and Environmental History.* (New Brunswick: Rutgers University Press, October 2005).

Franz-Josef Brüggemeier/Mark Cioc/Thomas Zeller (eds.), *How Green Were the Nazis? Nature, Environment, and Nation in the Third Reich*. (Athens: Ohio University Press, November 2005).

SPECIAL ARTICLE

Proceed with Caution: Science and Technology Policy in Aotearoa/New Zealand

Amy L. Fletcher, Ph.D.

Science and technology policy in New Zealand is at a crucial crossroads. In the 20th century, the "number 8 wire" aphorism captured the practicality, informality and "can-do" attitude of the Kiwi approach. The belief that a Kiwi could pretty much invent or fix anything with "just a piece of number 8 wire" is a cultural touchstone, and an instinctive mistrust of bureaucracy and government "help" lingers in the small business and scientific sectors. Still, since the 1970s, when Britain ended privileged treatment of New Zealand lamb exports as part of its imminent inclusion in the European common market, corporate, academic and scientific elites have increasingly turned to government policy to assist in rationalizing and exploiting New Zealand's entrepreneurial strengths. Today, three sectors—information technology, biotechnology, and creative industries (such as fashion and film)—receive prioritized government attention and subsidies.

Of these three, biotechnology is pre-eminent. The New Zealand primary sector is "the only sector in which New Zealand currently has world-class scale and specialisation" (Prime Minister Helen Clark, February 2002). According to the Arable Food Industry Council (AFIC), the value of the total arable industry to New Zealand is approximately $1.5 billion annually, represents 15% of New Zealand's agricultural GDP, and employs 19,000 people. As emerging commodity sectors in countries such as Brazil and Chile begin to make inroads into New Zealand's export markets, New Zealand must increasingly rely on the production of value-added food products (so-called "smart biotechnology" such as nutriceuticals) rather than trying to compete on labor costs. Most of the major corporate players in the agricultural sector see the ability to extract added value from commodity crops through scientific tools such as (but not limited to) genetic modification as crucial to productivity and competitiveness in the global marketplace.

However, while the industrial agricultural sector almost universally embraces advanced biotechnology as a scientific tool, contemporary New Zealand politics and culture complicate efforts to reach social consensus on science and technology policies, in contrast to more homogenous small states such as Finland or Denmark. Genetic modification in agriculture emerged as a salient issue at the same time that New Zealand society experienced significant changes in national political institutions, as well as in the relationship between Māori and New Zealanders of European descent. The Treaty of Waitangi (Te Tiriti o Waitangi), signed in 1840 by Māori chieftains and representatives of the British Crown, specifies the founding bicultural principles of Aotearoa/New Zealand. Conflicting English and Māori language versions of the Treaty exist, and contemporary social politics in New Zealand focuses intently on how to set up an equitable bicultural society that also rectifies past injustices committed against the indigenous (Māori) population by colonial immigrants. The formal adjudication of Māori land claims, customary rights to indigenous flora and fauna, and monetary reparations are ongoing processes that frequently generate social conflict. They are also relevant to the GM food issue in that Māori stakeholders could theoretically bring claims against the Government if genetic modification, imposed from outside the community and without their consent, conflicts with their customary rights to dominion over native flora and fauna.

In 1996, New Zealand also changed from a first-past-the-post (winner take all) electoral system to mixed member proportional representation (MMP). Modeled technically on the German proportional representation (PR) model in terms of the 5%-of-the-vote threshold for party representation in Parliament, and intellectually on the argument that PR electoral systems represent diverse social and economic interests more democratically, the shift to MMP created in its early incarnation an amalgam of a consensus-based electoral system embedded within a polity still accustomed to the conflictual Westminster style of national politics. The Green Party only emerged as a stand-alone political party in Parliament in 1999, and its stated preference for an Organic Nation (as opposed to the preferred corporate vision of New Zealand as a Biotechnology Hub in the Pacific) represents a potent source of opposition to technocratic science policy.

Indeed, the Green Party formally called for a Royal Commission on Genetic Modification (RCGM) as a means to generate a unifying social consensus around agricultural biotechnology. Established in May 2000, the RCGM concluded in July 2001 after approximately fourteen months of deliberation, and at a cost of $6.2 million NZD spent on hearings, public submissions, and consultation. The RCGM was unprecedented internationally, and the public consultation mechanisms include 15 public meetings, 11 hui (formal Māori consultations on a marae), 29 workshops, one youth forum and 13 weeks of hearings to receive the testimony of 107 stakeholders who had formally registered as Interested Persons. Over 10,000 public submissions were made to the Commission. In its report to the Government, the RCGM (2001) concluded that there was an "urgent need for the development of a biotechnology strategy for New Zealand." It argued that the aim of this strategy should be "to ensure that New Zealand kept abreast of developments in biotechnology, and that these were used to national advantage while preserving essential social, cultural, and environmental values" (349). For corporate stakeholders such as Fonterra, the RCGM represented a flawed but comprehensive process, and the conclusion to "proceed with caution" could be accommodated. The Green Party, however, politically could not accept any recommendations to lift the moratorium on the commercial release of GM foods in October 2003 and continuously linked GM food to health disasters "like thalidomide, DDT and nuclear power stations [presumably a reference to Three Mile Island and Chernobyl]—promoted as safe by their vested interest producers, but catastrophic in their downstream effects on our children and their children" (Green Party, 1999).

Throughout the RCGM, Green Party members promulgated, in particular, a semiotic link between opposition to GM food and opposition to nuclear power. Given that New Zealand famously rejected visits from American nuclear powered ships in the mid-1980s, and was essentially kicked out of the ANZUS (Australian-New Zealand-United States) security arrangement as a consequence, the nuclear power/weapons issue continues to be politically potent in contemporary New Zealand. Indeed, New Zealand's anti-nuclear policy exemplifies a unifying consensus—the type each major stakeholder hoped to achieve with respect to GM food—as opposed to the "proceed with caution" majority consensus reached by the RCGM. The Green Party thus emphasized a "GE Free New Zealand" slogan in its opposition strategy, banking on both the historical resonance of the slogan "Nuclear Free New Zealand" and the continued strong support across the political spectrum for the anti-nuclear stance. Ian Ewen-Street (Green Party Agricultural Spokesperson) argued, for example, "the task before us is similar in style and magnitude to the struggle to become nuclear free in the 1970s, with the majority of the people wanting one thing and the government heading full steam in the opposite direction" (Ewen-Street, 1999).

Ultimately, the Labour Government accepted the major recommendations of the RCGM, though it strengthened regulatory controls in order to "proceed with caution" and to protect the cultural and monetary value of New Zealand's "clean green" image. In addition, it implemented the RCGM's recommendation to establish a Bioethics Council, whose mandate is to consider and advise on the spiritual, cultural and moral aspects of new technologies and their attendant risks. The Bioethics Council recently concluded a major consultative exercise on xenotransplantation—the use of animal organs (often genetically modified) for human transplant purposes—and has also submitted non-binding advice to Parliament on nanotechnology and assisted reproduction issues. This type of consultation is not uniformly endorsed across the New Zealand political spectrum, as both the National Party and the ACT Party consider the integration of "spiritual and cultural" risk considerations into policy-making an amorphous mandate at best. Given the current divided state of the New Zealand polity—the September 2005 parliamentary election resulted in a Labour "victory" of only 1 seat over National—and the crucial importance of the biotechnology export sector to New Zealand's economic competitiveness, the issues of environmental and health biotechnology are certain to remain in the forefront of Parliament's agenda to 2008.

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The **University of Pennsylvania Department of the History and Sociology of Science** seeks to appoint an Assistant Professor in the social, cultural, and/or historical dimensions of health and illness, to begin 1 July 2006. Ph.D. in anthropology, sociology, history, or related discipline required. Candidates with research interests in international or cross-cultural aspects of medicine, the social determinants of population health, or the history of health and medicine are of particular interest. The successful candidate will be expected to play an active role in the Health & Societies Program, an interdisciplinary undergraduate major administered through History and Sociology of Science.

Please send *cv*, cover letter and three letters of recommendation to the chair of the search committee, Professor Steven Feierman, History and Sociology of Science, University of Pennsylvania, 249 S.36th Street, Suite 303, Philadelphia PA 19104. The search committee will begin reading files on October 1, 2005 and will continue reading until a candidate is chosen. The University of Pennsylvania is an equal opportunity affirmative action employer; women and minority candidates are encouraged to apply.

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The Société Fellowship is designed to stimulate public understanding of the chemical industries. Applications are encouraged from writers, journalists, educators, and historians of science, technology, or business. The fellow will spend three months in residence at CHF during the summer of 2006. Multimedia, popular book projects, and Web-based projects are encouraged. Applicants must specify how the outcomes of their project will reach a broad audience.

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The Ullyot Scholarship sponsors historical research that promotes public understanding of the chemical sciences. Applications are invited from scholars, graduate students, science writers, and journalists. The fellow will spend a minimum of two months in residence at CHF during the summer of 2006.

Send inquiries and applications to: **Fellowship Coordinator, Chemical Heritage Foundation, 315 Chestnut Street, Philadelphia, PA 19106-2702**
Phone: 215-925-2222 Fax: 215-925-6195
E-mail: fellowships@chemheritage.org

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Next SHOT annual meeting:

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Iowa State University
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