



# STS TIMES

*The Newsletter of The Committee on Science and Technology Studies*

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[www.brown.edu/Faculty/COSTS/](http://www.brown.edu/Faculty/COSTS/)

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## Humanities/Science Project

In Spring 2008, the Committee on Science and Technology Studies (COSTS) and the Cogut Center for the Humanities announced a three-year collaborative program linking the sciences and the humanities.

“Fifty years after C. P. Snow’s “Two Cultures” lecture, a refreshed and productive dialogue between the humanities and the sciences seems not only desirable but in fact essential,” said **Michael Steinberg**, Director of the Cogut Center for the Humanities. “Natural history and human history can no longer be understood as separate spheres on a planet that is endangered. The combination of theoretical thinking and clear communication poses similar challenges to the humanities and the sciences, all the more so in a period where both have credibility problems in the public sphere.”

“The ongoing partnership between the Cogut Center for the Humanities and the Committee on Science and Technology Studies will explore these and other issues through annual foci: Darwin and the many faces of evolutionary theory in 2008-2009, with other themes and foci to follow in later years.”

This year’s program celebrates

the bicentennial of the birth of Charles Darwin (b. 1809), and the scientific and cultural history of evolutionary theory in the 150 years since the publication of *The Origin of Species*.

The series was opened by renowned scholar and biographer **Janet Browne** in October 2008.



Photo: Gabby Salazar

The following events use dialogue between those in the humanities and the sciences to explore the continued import of evolutionary theory and practice.

On Dec. 4, 2008, over 125 people attended the second event in the series, “**States of Theory in Biology and the Humanities.**”

The speakers were:

**Patricia Gowaty**, Ecology and Evolutionary Biology, UCLA; **Harriet Ritvo**, History, MIT; **Vanessa Ryan**, English, Brown University; and **Marlene Zuk**, Biology, University of California, Riverside.

February 24, 2009:

### “Evolution and Religion”

-**Massimo Pigliucci**, Ecology and Evolution, SUNY Stony Brook, co-author of *Making Sense of Evolution*

-**Mary Bergstein**, Art and Architectural History, RISD

-**Edward Larson**, School of Law, Pepperdine, and author of Pulitzer Prize-winning *Summer for the Gods: The Scopes Trial and America’s Continuing Debate Over Science and Religion*

-**Kenneth Miller**, Biology, Brown University, author of *Finding Darwin’s God* and *Only a Theory: Evolution and the Battle for America’s Soul*

April 6, 2009:

### “What’s New in Evolution”

-**Marc Kirschner**, Systems Biology, Harvard University, co-author of *Cells, Embryos, and Evolution* and *The Plausibility of Life: Resolving Darwin’s Dilemma*

-**Jonathan Kaplan**, Philosophy, Oregon State, co-author of *Making Sense of Evolution*

-**Johanna Schmitt**, Stephen T. Olney Professor of Natural History, Professor of Biology and Environmental Studies, Director, Environmental Change Initiative, Brown University

-**Peter Taylor**, Graduate College of Education, UMASS Boston

## STS Reading List

### Five Noteworthy New Books

*The Intelligibility of Nature: How Science Makes Sense of the World*  
Peter Dear, University of Chicago Press (2008)

*Dolly Mixtures: The Remaking of Genealogy*  
Sarah Franklin, Duke University Press (2007)

*Reassembling the Social: An Introduction to Actor-Network-Theory*  
Bruno Latour, Oxford University Press (2007)

*Disrupting Science: Social Movements, American Scientists, and the Politics of the Military, 1945-1975*  
Kelly Moore, Princeton University Press (2008)

*The Politics of Life Itself: Biomedicine, Power and Subjectivity in the Twenty-First Century*  
Nikolas Rose, Princeton University Press (2007)



# Note From the Chair

Anne Fausto-Sterling

Welcome to the second issue of *STS Times*. Our big event for the academic year, the celebration of the Darwin Anniversaries, is off to a great start. Look for our two upcoming spring panels, one on religion and one on the evolution of Darwinian theory and practice. Our former students are doing well and checking in regularly with us, and our faculty continue to win grants and publish books and articles. In this issue we also announce a new speaker's series: the Anthropology of Science and Technology. This joint venture with faculty members in the Anthropology Department is designed to highlight how anthropologists study the culture of science and technology. Please check our web site regularly for specifics on upcoming events. Finally, thanks to STS Administrative Coordinator Michele Duff, who once again has put together a great newsletter and whose hard work makes each of our events a smashing success.

# STS Alum

With a primary interest in the intersection of public nutrition, human rights, and health law as it pertains to the obesity pandemic both in the U.S. and in emerging economies, **Blanche Greene-Cramer '07** is in her second year of a public health masters program at Emory University's Rollins School of Public Health. She is focusing on Global Health and Public Nutrition.

Last summer Greene-Cramer designed and conducted a research project on sociocultural and environmental determinants of youth health in Pohnpei, Micronesia. During her nine weeks there she also participated in the development of an educational campaign to raise awareness of diabetes and obesity, and wrote newspaper articles for a regional newspaper about underutilized local foods.

"Having both a social science as well as science background allows me to appreciate and understand the basic biological and physiological processes that underlie disease etiology and influence the distribution of disease within populations. But then I can

also appreciate how this science is embedded within a larger social context that influence how diseases spread between individuals and communities and look critically at the effects of the increasing medicalization of sickness, illness, and health."

"Public health, in particular global health, is inherently multidisciplinary and requires cooperation, collaboration, and a willingness to cross boundaries between hard, soft, and social sciences, between business, law, and medicine. As a Science & Society concentrator I felt as though I was ready not only to enter the cross-disciplinary dialogue taking place within my field, but also to initiate new conversations and push for more collaboration because of my earlier exposure to multiple fields."



## Faculty Steering Committee Members and News

- Lundy Braun, Pathology and Laboratory Medicine and African Studies
- Justin Broakes, Philosophy
- Phil Brown, Sociology and Environmental Studies
- Anne Fausto-Sterling, Molecular and Cell Biology and Biochemistry, Chair, COSTS
- Samuel Greenblatt, Clinical Neurosciences (Neurosurgery) and Neuroscience
- Sherine Hamdy, Anthropology, STS
- Evelyn Lincoln, History of Art and Architecture
- Patrick Malone, American Civilization and Urban Studies
- Tara Nummedal, History
- Joan L. Richards, History
- Nicolás Wey-Gómez, Hispanic Studies

The August, 2008 issue of *Discover Magazine* featured an interview with **Phil Brown**: "The Lifesaving Work of the Man Behind "A Civil Action". "Popular epidemiologist" Phil Brown comes to the aid of environmental contamination victims." Read it online: <http://discovermagazine.com/2008/aug/29-the-lifesaving-work-of-the-man-behind-a-civil-action/>

In June, **Patrick Malone** won the Vogel Prize from the Society for Industrial Archeology for an article in *IA: The Journal of the Society for Industrial Archeology*, Vol. 31, No. 1 (2005). The article, "Surplus Water, Hybrid Power Systems, and Industrial Expansion in Lowell," was awarded the prize for "outstanding scholarship in industrial archeology." Professor Malone's book manuscript on "Waterpower in Lowell" has been approved for publication by the editorial board of Johns Hopkins University Press and is scheduled for publication in 2010.

**Samuel Greenblatt**, Professor of Neurosurgery, with the support of **John Davenport**, Associate Director of Brown's Institute for Brain Science, has announced an interest group on Brain Science in History and Society. The goal is to provide a way for faculty to share experiences and knowledge. An initial meeting was held in November. The next meeting, scheduled for Jan. 26, 2009, will feature a discussion on neurohistory. Possible topics for the spring include neuroscience and philosophy, and neuroethics. Interested faculty should contact [Samuel\\_Greenblatt@brown.edu](mailto:Samuel_Greenblatt@brown.edu)

or [Robert\\_Davenport@brown.edu](mailto:Robert_Davenport@brown.edu). Students: consider a Science and Society concentration with a focus on neuroscience; you might also be interested in Professor Greenblatt's Spring 2009 course, Historical Foundations of the Neurosciences II, NEUR 2940G.

At the 13th annual meeting of the International Society for the History of the Neurosciences in Berlin, Germany, June, 2008, Professor Greenblatt served as moderator and panelist for a Workshop on Teaching Neuroscience History. The Society's 14th annual meeting will be in Charleston SC, June 16-20, 2009. He also served as moderator for a seminar on: History of Neurosurgery and Neurosciences, and for a symposium on: History of Psychosurgery – History Section Session, at the Annual Meeting of American Association of Neurological Surgeons in Chicago, April 2008.

Professor Greenblatt is the recipient of the Lifetime Contribution Award of the International Society for the History of the Neurosciences, June 2007.

## STS Q&A



An interview with **Phil Brown**, Professor of Sociology and Environmental Studies, and Interim Director, Center for Environmental Studies. This is the second in a series of conversations with members of the steering committee about their perspectives on STS.

### Why is the STS perspective important in your field?

STS embodies collaboration across multi-disciplines to get different viewpoints on identifying and working on a problem. In my field, we work with environmental health scientists, air particulate experts, toxicologists, epidemiologists, community organizers, sociologists. It is a classic example of science in action.

### Could you offer a real world example?

One of the best examples is the household exposures study I'm working on right now, in Richmond, California, where there's the largest oil refinery west of the Mississippi. We are working with community groups who want chemicals and substances monitored to help them in their efforts to reduce emissions, and to prevent the refinery from bringing in dirtier crude. One of the findings was enormously high levels of PBDE flame retardants. These are used in a lot of furniture, and in some electronics. Although some have been banned, some forms of PBDEs are still used. As soon as our study was released, we had immediate media coverage and public interest.

In fact, one of the state assemblymen called on the governor to change the rules about fire safety. They're putting too much flame retardant into furniture, using California standards that are so protective, they've become unprotective. What do I mean? Well, there are fewer house fires today, and fire fatalities are down. But fire fighters are called into fires, and they're inhaling tons of toxics that are burning – the impact is much worse when they're inhaled like this. If we didn't have a community-oriented perspective, if we didn't understand the politics of the science, and the social construction of the system, we could never have addressed how something good – fire safety – became dangerous.

### What is one question you'd like to see addressed from an STS perspective?

Often we know chemicals are dangerous in one setting, ie: an occupational setting, where people have known exposure, eight hours a day, 40 hours a week. They're exposed to high concentrations. Other people are exposed in lower doses, ordinary citizens who are using the products. Findings that hold for an occupational study don't necessarily hold for environmental settings, and so people have a hard time giving as much credit to environmental causation as they do other things.

A classic example is, a boy falls in the well. No expense is spared to get this boy out. Helicopters, expert rescue teams, major press coverage, for one boy in the well. Or, seven people eat tainted hamburger meat, and the whole country is up in arms, agencies in every state are going into fast food chains taking samples, again there is no expense spared.

With chemical exposures, people don't seem to pay as much attention, because then you start to think, well, we're going to put the chemical industry out of business, we're going to hurt the rubber industry, the steel industry, the pharmaceutical industry. There is a lot of resistance, so one of the big questions I have is how do we break down that resistance to understanding environmental causation?

### Could you give an example of what Science and Society concentrators in an environmental track might study?

**Molly Cohen '09** is doing her thesis on EPA scientists' views of interference with their work. She's looking at issues such as EPA's refusal to consider air pollutants as a regulated form of contamination and EPA's opposition to more stringent mercury emissions regulations.

One of my grad students is working on a PBDE project: How does a new, what we call emerging contaminant, get discovered, and become important in the public eye? For example, things like phthalates, bisphenol A, and many others that have been in the news lately were largely unknown words five or 10 years ago. Scientists weren't studying them very

**NEW!**

## The Anthropology of Science and Technology

In 2009-2010, COSTS and members of the Department of Anthropology will sponsor a speaker series on the Anthropology of Science and Technology. We will bring in scholars who work on the social processes through which scientific knowledge is produced.

Our first speaker, **Heather Paxson**, comes to us from MIT where she is an Associate Professor of Anthropology. Her work explores how people grapple with changing socioeconomic conditions and new bioscientific knowledge through everyday ethical practices, especially those having to do with reproduction and food. Her earlier work, based in Athens, Greece, examined changing ideas about motherhood and fertility control. She is now working on an ethnographic study of American artisanal cheesemakers, and will be speaking at Brown on **Jan. 28**, on what she calls the "microbiopolitics" of raw milk cheese in the U.S.

**Stefan Helmreich**, also an anthropologist at MIT, will speak on **March 17**. Professor Helmreich's research centers on contemporary biologists and their various ideas about the conceptual and technical boundaries of the category of life itself. He has written extensively on Artificial Life, a field dedicated to the computer simulation of living systems. During the spring, Professor Helmreich will come to Brown to speak to us about his new research on contemporary marine biology: specifically, he is looking at how scientific portraits of the oceans are transforming as marine biologists reimagine the sea through the language and techniques of genomics, bioinformatics, biotechnology, biodiversity mapping, and systems modeling.

much, funding agencies weren't giving much funding. There's a lot to learn. What's the pathway by which these different chemicals get examined for toxic effects? What constituencies have to be mobilized in order to bring these to the scientific agenda? And to what extent is the scientific agenda only one part of an overall agenda, a political agenda, a media agenda, a community mobilization agenda?



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## Undergrad Awards

### The Naturalist:

Science and Society concentrator **Gabby Salazar '09.5** was honored by *Glamour Magazine* in its annual "Top 10 College Women" making a difference competition. Named 'The Naturalist' by *Glamour* in its August 2008 issue, Gabby spent last semester working on Nature's Best Photography Students, a magazine by students for students ([www.naturesbeststudents.com](http://www.naturesbeststudents.com)), and traveling in Central and South America. She also photographed wildlife in the Smoky Mountains and the Badlands, donating her photos to aid the preservation of these areas.



*Juvenile White-Crowned Parrot in  
Osa Peninsula, Costa Rica  
Photo: Gabby Salazar*

### Innovative Thinking:

**David Schwartz '09** and **Natalie Jablonski '10** of Brown Sustainable

Food Initiative (SuFI) received a Student Leader Citation award in the Innovative Thinking category in May 2008, for helping COSTS best leverage Michael Pollan's visit in Feb. 2008. With David and Natalie's knowledge of and contacts within the greater Providence community of farmers, non-profit organizations, restaurateurs and food suppliers, we were able to bring together not only communities from the Brown campus but also to involve those from beyond campus. The Student Leader Citation awards are sponsored by the Student Activities Office and the Office of Alumni Relations.

### STS Thesis:

For the second year, COSTS awarded a university-wide prize for Best Undergraduate Thesis in the STS field. In May 2008, the prize was awarded to Ms. **Vani Kilakkathi** for her honors' thesis in human biology: "Making Sense of Race in Medicine: Genetic Versus Social Explanations for Breast Cancer Disparities."

Congratulations to you all!

## Science and Society Concentration

If you're interested in learning more about Science and Technology Studies at Brown – and whether a concentration in Science and Society is for you – check out our website. You can also email Professor Fausto-Sterling, COSTS Chair, [Anne\\_Fausto-Sterling@brown.edu](mailto:Anne_Fausto-Sterling@brown.edu).

### Science and Society DUG

The Science and Society Department of Undergraduates (S+S DUG) has been revived after a few years' hiatus. Planning has begun, for events ranging from lectures and forums, to informal gatherings and panels of alumni and researchers. Along with this, of course, comes lots of delicious food and opportunities to meet other concentrators and professors of STS.

For information on upcoming S+S DUG events, please e-mail organizers:  
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