THE ENVIROTECH NEWSLETTER

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Editor's Note:

As some of you no doubt have noticed, the newsletter has been a bit (OK, more than a bit) tardy in arriving in your inboxes this spring. My apologies, especially to those of you who submitted announcements which are now no longer timely. I can only plead the classic excuse of the modern age: technical difficulties. My first attempt at assembling the newsletter demanded both new software and organizational skills, giving me a renewed (Cont. on page 5)

Important Dates:

- **June 1:** Submission deadline for Envirotech article prize (see page 3)
- **July 1:** Panel proposal submission deadline for the 2006 meeting of American Society for the History of Technology (see page 8)
- **November 3-6:** Annual meeting of the Society for the History of Technology in Minneapolis, MN (see page 9)

What Is Envirotech?

Some Emergent Properties of a New Historical Subfield

by Tim LeCain

Last October, Envirotech co-chair Betsy Mendelsohn began an important discussion when she solicited ideas for a proposed collection of essays on Envirotech. Valiant attempts by members to envision just what this volume might look like soon led to a related question: What is Envirotech anyway? What defines this hybrid field that we are all simultaneously working in and creating?

Betsy has kindly collected and edited the full conversation into one convenient document (go to the "Discussions" at the Envirotech website (http://www.udel.edu/History/gpetrick/envirotech/). However, in the course of the debate, Hugh Gorman thoughtfully suggested that one way to approach the question of *what* is Envirotech might be to examine *who* is Envirotech. To play on the oft-cited idea that "science is what scientists do," might we say that Envirotech is what envirotechies do?

To try and discover what it is that envirotechies do, I asked everyone to send me a short description of their current work. Your responses, edited in some cases for length, are below. As you will quickly see, this is not a comprehensive list as not all of you responded, Further, some of your responses were a good deal more detailed than others. Nonetheless, the list does provide a fascinating snapshot of the research envirotechies are engaged in at this moment. As Maurits Ersten's rightly suggested during our discussions, we need to keep in mind the issue of "supply" of possible articles for the collection as much as our "demands" for articles on themes we might like to be explored. (Cont. p. 4)

Session Reports From the ASEH Meeting in Houston

Envirotechies met with their fellow environmental historians in Houston, Texas, this past March for the annual meeting of the American Society for Environmental History. For those of you unable to attend this year, Joy Parr and Fred Quivik have generously provided reports on some of the relevant sessions. Also, a reminder that next year's ASEH meeting will be in St. Paul, Minnesota, March 29-April 2. See the call for papers on page 8.

Joy Parr Reports:

Paper from Robert Thompson, a graduate student at University of Houston:

'Air Conditioning Capital of the World: History of Climate Control in Houston Texas'

NASA's Johnson Space Center near Houston, Texas (NASA photo)

-A paper which will appear in Martin Melosi's forthcoming edited collection on the environmental history of Houston

An exceptional paper on unequal access to technology as a dimension of the dwelt-environment Thompson showed Houston as two cities, the suburban cool and urban hot, noting that the first experience for many of climate control was the cinema of the 1920s. Access to the technology changed embodied practices in the city, for summer for those with access to air conditioned spaces no longer meant slowing down and moving outside, but rather staying inside and business as usual. By the 1950s, (Cont. p. 2)

ASEH Session Reports (Cont. from Page 1)

air conditioning was thought of as a right, and the advent of air conditioned vehicles in the 1960s supported suburban flight. By the 50s, the air conditioned theatres had also moved to the periphery and viewers needed automobiles to access them. By the 1980s, the city was functionning as a heat island, large enough to create its own weather, 5-9 degrees F hotter than the surrounding territory. Cool air had come to signify being in control and successful.

Paper from Jim Kinney, Royal Military College, Kingston

'The Environmental Politics of Hydro Development: the case of the Saint John River (New Brunswick) 1950-70'

-A paper in a session on Dams, hydro power and the environment'
Kinney follows the social and environmental cascade from the development of mining sites for base metals in northern New Brunswick, initiatives key to the economic development aspirations of governing parties in a 'have-not' province. Base metals production required electricity, in the first instance hydro power from a series of dams in the north, and in time further south. These dams at Tobique, Beechwood and the grand dam, Mactaquac, disrupted the salmon fishery, an important food source for local First Nations and settler communities, and an income source for the many who earned case guiding American sport fishermen. Women in these communities suffered as the declining stream of sports fishers reduced the tourist demand for their craft production. This was an instance of some benefit for all residents of the province secured by grave sacrifices for the few.

Paper from Timoteo Rodriguez, a graduate student at University of California, Berkeley

'Cenote Water Procurement: Subsistence, Ceremonial or Sabor?'

-An early sketch of issues and sources for a doctoral dissertation
Rodriguez is interested in underground caves as water sources among the Maya, noting that access to these caves by ladders and wooden rams, was key to community survival in the dry season. The practices of 'going down' for water were also central constituents of the humoral sensibility of the Maya and key symbolic resources. This was a culture which used several different sources of ground and rain water of differing physical qualities. These qualities came to be associated, in taste and temperature, with different times of the day and year. Rodriguez made a strong case for the importance of investigating how the cultural attitudes attached to these several water sources and their distinctive physical qualities were commonly embodied.

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Website: www.udel.edu/History/gpetrick/envirotech/

Fred Quivik Reports:

Panel 35:
HOW GREEN WERE OUR VALUES? INDUSTRY, WASTE, AND THE ENVIRONMENT IN URBAN AMERICA

Chair: Jared Day, Carnegie Mellon University

Donna J. Rilling, SUNY Stony Brook
"Bone Boilers: Nineteenth-century Green Businessmen?"
Steven Corey, Worcester State College
"To Burn or Not to Burn: Incineration and the Promise of Co-Generation in New York City, 1896-1996"
Carl A. Zimring, Oberlin College
"Is Recycling Garbage? Evaluating Economic and Environmental Arguments Against Recycling in Historical Perspective"
Joel Tarr, Carnegie Mellon University
"The Manufactured Gas Industry and the Environment: Pollution Effects and Pollution Control"

A theme common to each of these papers concerned the role that political perspectives played in determining the extent to which the technologies in question were employed. The first three papers dealt explicitly with technologies of managing some component of the urban waste stream. Joel Tarr's paper concerned a much-ignored urban industry of the nineteenth and early twentieth centuries that also produced significant streams of industrial waste. Rilling opened the session with an entertaining and very insightful examination of the nineteenth-century urban industry that collected animal carcasses from slaughterhouses, rendered the remains, and produced usable materials like glue. Rilling has researched nineteenth-century court cases in Philadelphia brought by parties who filed nuisance suits against bone boilers, as the carcass collectors and renderers were called. The complaints described perceived damage being done to the environment at the urban margins, while the defendants advocated on behalf of their industry with

ASEH Session Reports (Cont. from Page 2)

claims that they were gathering materials that otherwise would exact an even more disgusting toll on the urban environment and turning those materials into useful items. Corey has examined the history of technologies for incinerating municipal waste in New York City. The method consumed an ever greater share of New York City's garbage through the early twentieth century, at the same time providing an energy source for generation of errent debates over garbage recycling in New York City. He began his story with a 1996 *New York Times* editorial by the conservative columnist, John Tierney, who called curb-side recycling nothing more than a feel-good boondoggle that needlessly cost taxpayers money. When Mayor Bloomberg recently took office, he ended curb-side recycling in a budget cutting move. In response to the public outcry, he entertained bids to see if anyone could collect recyclables more economically (Waste Management, the garbage hauling conglomerate had been doing it at a cost to the city). New York City has now instituted curb-side recycling, with the new contract going to a long-time New Jersey scrap dealer that is paying the city for the privilege of collecting its recyclables. Whereas Waste Management viewed recyclables as part of the waste stream and indeed hauled much of what it collected to landfills, the scrap dealer views recyclables as a resource with which it can better serve its expanding market for materials. Tarr provided a nice overview of the manufactured gas industry from its beginnings in the early nineteenth until the mid twentieth century, when it was largely supplanted by natural gas. He described the kinds of pollutants the industry produced as it made gas electricity. At its peak between the world wars, incineration consumed nearly half of the city's garbage, at the same time providing employment for immigrants who sorted garbage to remove non-combustibles. That ended when a man with close ties to the sanitary landfill industry came to power in New York City prior to WWII. Zimring has been studying the history of the scrap industry. He put that historical perspective to good use in analyzing the cufrom coal. Finally, Tarr outlined why responses to pollution caused by the manufactured gas industry differed from responses to pollution caused by enterprises in other sectors of the energy industry. The main cause for difference he identified was that manufactured gas plants

The Envirotech Prize for Best Article

We are inviting nominations for the Envirotech Prize for Best Article on the Interplay between Technology and the Environment in 2003/05, which will be awarded in 2005 for the second time.

The Envirotech Prize recognizes the best article on the relationship between technology and the environment published in the three previous calendar years. We are particularly seeking innovative publications that explore new ways of thinking about the interplay between technological systems and the natural environment. Articles may be submitted in any language; however, for articles not written in English, the applicant will need to provide a translation. Younger scholars are especially encouraged to submit their publications.

The Envirotech Prize carries a cash award and will be awarded at the conference of the Society for the History of Technology (SHOT) in Minneapolis, November 3-6, 2005. The deadline for submissions is **June 1, 2005**. Self-nomination is encouraged.

Please submit one copy of your article, together with a brief curriculum vitae, to each of the committee members:

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What is Envirotech? (Cont. from Page 1)

In this light, the list may suggest some themes we could realistically expect to develop given our membership, although inclusion on the list obviously says nothing about any individual's willingness to contribute to the book.

Also, my apologies in advance if I mischaracterize anyone's work in my rough attempts to classify and find themes; please keep in mind that I was working with short descriptions that could not possibly capture the full complexities of any individual's current project.

In reading through this list, I was first struck by the intellectual diversity displayed. Envirotechies are at work in a wide variety of academic and non-academic positions, and their interests range from the environmental history of oysters to the social effects of nuclear reactors to global policy on shared water resources. We are also a significantly international group, both in terms of areas of study and nationality.

Not surprisingly, a strong emphasis on public policy and contemporary environmental problems informs the work of many of us. Some members are primarily engaged in crafting and studying current environmental policies, a task for which they find historical perspectives useful. Dann Sklarew's work at the United Nations on international water issues and Steven Moore's architecturally-centered studies of the sustainability of urban environments offer fascinating examples. Other members are primarily engaged in historical studies but also see their work as offering insights into current environmental dilemmas. Erick Rau is investigating the techniques and methods various groups use to define and measure environmental problems, while Stephen Cutcliffe is developing an appropriate historical context in which to evaluate current developments in nanotechnology. The projects of Martin Reuss, Jordan Kleiman, Emma Reisz, Sarah Wade, Frederic Quivik, and Tim LeCain, among others, are all relevant to public policy in some way.

In sum, it seems that many envirotechies are interested in finding a useful past rather than just studying history for history's sake. This focus on contemporary environmental issues as informed by historical context may suggest one possible theme for the proposed collection of essays. Dare we be so bold as to suggest that the field of Envirotech offers not only intellectually important insights into the past, but also practically useful perspectives on the present? A volume that brought together scholars from the worlds of both policy and history might make such a potentially controversial approach workable.

Still, this policy slant notwithstanding, Envirotech is at heart an academic historical subfield, and any successful collection obviously needs to offer new ideas that directly engage the historical profession (though these new ideas may also be useful to the policy-oriented scholar). As a hybrid field that bridges the more clearly defined disciplines of environmental history and the history of technology, Envirotech perhaps inevitably struggles to define itself. Are envirotechies simply environmental historians with an interest in the history of technology (or vice-versa)? Or is there some more compelling raison d'être at work?

In nanotechnology (another young but rapidly growing hybrid field of study, albeit decidedly less humanistic than Envirotech) scientists often speak of "emergent properties"—previously unrecognized and potentially revolutionary phenomena that appear only at the nanoscale of matter. In studying the descriptions of what Envirotechies do, it struck me that there were at least a few "emergent properties" that might help us to craft a collection essays and define our field.

One regards what Betsy Mendelsohn has called "naturalized technological systems," or if I can add to and flip Betsy's idea, "technologized natural systems." This may be one of the most fundamental and methodologically powerful ideas that Envirotech has to offer: that the traditionally clear distinction drawn between nature and technology (and by extension between environmental history and history of technology) is both theoretically misleading and methodologically weak. In 2001 Ed Russell's proposal that some animals might best be viewed as technologies sparked one of the most fascinating debates in Envirotech's short history. Now it appears that several envirotechies are happily at work breaking down the nature-technology barrier. Matthew Booker's current research on what might be called the urbanization and industrialization of the oyster promises to further our understanding of how a natural creature is technologized. Joel Tarr and Clay McShane's soon-to-be-completed book on the city and the horse also promises to offer similar new insights. In addition to this theme of "animals as technologies," Tim LeCain's investigation of the history of mass mining illustrates the way in which natural system were incorporated into the technological. Sarah Wade, Erik Conway, Joy Parr, and Christine Rosen achieve similar goals by investigating the mutual feedback systems linking various technologies and the environment. Others, like James Williams and Thomas Zeller collapse distinctions by thinking in terms of technological landscapes.

A second emergent property of Envirotech was also previously identified by Betsy Mendelsohn: the historic role of experts and expert knowledge at the nexus of techno-environmental interaction. A rich theme of exploration might be the way in which scientific and engineering experts viewed and gained knowledge of the environment. Of course, the history of expertise is an old and well-worked field. Yet the Envirotech approach promises to breathe new life into this vital area of "mainstream" history by suggesting that some experts may have defined themselves in essentially environmental terms. Erik Conway is engaged in two intriguing studies of the way engineers and scientists at NASA struggled to understand and mitigate the environmental damages caused by new

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aerospace technologies. Likewise, Martin Reuss' current work will offer important new insights into the development of hydrology in the United States. The research projects of Joy Parr, Anthony Story, and others includes at least some element of this theme as well.

Finally a third intriguing emergent property might be the links between consumption, technology, and environment. Envirotech is uniquely well-positioned to investigate the often obscure but absolutely critical ways in which consumption and consumer products are fundamentally tied to the environment. Consumption, for all its complex and multi-layered cultural and political meanings, can at base be viewed as a technical and environmental issue. Carl Zimring's recent work on the scrap recycling industry in America and its relationship to cultural views of waste and the environment suggests the importance of explicating modern consumption-technology-environment systems. In a different but no less compelling way, Thomas Zeller's work on "consuming landscapes" demonstrates just how rich this approach might be. Zeller's methodology suggests that humans not only directly consume technologies and their products, but also use technologies like automobiles and parkways to "consume" the landscape.

These are some of the themes that emerged for me after a close reading of the list that follows. No doubt many of you will arrive at other and better possibilities. As Frank Ueköetter has appropriately reminded us, it would be a serious mistake to use the proposed collection of articles to somehow define an enduring "thematic canon" for what constitutes the rich and diverse field of Envirotech. Yet, a more modest and workable approach may be to use the book to discover and showcase the new insights and methodological innovations that are currently sparking the imagination of envirotechies in a wide array of different fields. Perhaps Envirotech is indeed best defined simply as "what envirotechies do."

The complete list of "Envirotechies at Work" begins on page 9.

The Envirotech Syllabi Project

by Jordan Kleiman

As Envirotech scholars, we are presently engaged in the process of hammering out a definition of our emerging field of study. With a formal discussion scheduled for the ASEH meeting in Houston, a website with proposed definitions, and an edited volume of Envirotech essays in the offing, that project is beginning to gather some momentum. Thus far, however, we have devoted our attention to the intellectual orientation of Envirotech scholarship. As we continue to negotiate the meaning of Envirotech, it may also be helpful to learn how fellow Envirotech historians approach the field in the classroom. Around what subjects do we organize our classes? What conceptual issues do we address in our teaching? What readings do we assign? What visual, aural, web-based, and other "non-traditional" sources do we use in the classroom? What accessible primary-source collections do we steer our students toward to write their research papers? What fieldtrips have we undertaken?

The way we answer these questions should tell us something about the way we define our field. In an effort to move this project of self-definition further along and, in the process, to establish a resource for those planning to teach envirotech courses, some of us have begun the task of collecting Envirotech syllabi. H-Environment has generously agreed to post the syllabi to their webpage under an "Envirotech" heading and with a link to the Envirotech webpage. If you are interested in participating, please send your syllabi as PDF attachments directly to me, and I will forward them to H-Environment. The header of your syllabus should include only your name and institution and the term in which you last taught the course.

Editor's Note (Cont. from Page 1)

appreciation for Erik Conway's fine work as the previous editor. Now that I've mastered the basics at least, I promise you all that the newsletter will be out on time in the future. Keep sending those announcements!

As Erik also warned me, one of my most difficult challenges as editor would be in soliciting (coercing?) submissions of material from you, the members of Envirotech. So as we head into summer, a gentle reminder to please send me any and all information, reports, updates, photographs (etc.) that you think would be of interest to your fellow envirotechies.

We will also henceforth be releasing the newsletter *after* the SHOT and ASEH annual conferences in order to provide fresher and timelier session reports. So those of you attending SHOT this fall in Minneapolis, be forewarned: I will be counting on your reporting skills!

Finally, my further apologies for putting my own article at the top of my first time out as tje newsletter editor. I trust you will believe me when I say it was a result not of untoward personal vanity so much as a

News of Envirotech Members

Betsy Mendelsohn's "Technology in environment" chapter appeared in Carroll Pursell, ed., *Blackwell Companion to American Technology* (Jan. 2005).

Ed Russell gave a fabulous talk, "Evolutionary History: Darwin, Dogs, and Interdisciplinary Dialogue," at Montana State University in November 2004. Sponsored by the Dean's Office, Russell's public lecture was part of the Department of History & Philosophy's continuing efforts to build an undergraduate and graduate program in "Science, Environment, Technology, and Society."

New On-Line Newsletter, *Solidarity and Sustainability,* Begins Publication

Luis Gutierrez reports: The first issue of the "Solidarity and Sustainability" newsletter has been posted online. This is my initial attempt to integrate existing knowledge about the intersection of religious patriarchy, social solidarity, and ecological sustainability. No presumption of any new scholarly breakthrough, just a modest initiative to increase awareness that authentic religion should never be an obstacle to human development. The goals of the United Nations "Millennium Project" are used as point of reference.

Home page in Google groups:

http://groups-beta.google.com/group/Solidarity-Sustainability

I am still trying to understand the formatting requirement in Google groups. Just in case, there is a mirror image posted at:

http://www.pelican-consulting.com/solisust01.html

You can subscribe by sending a blank email to:

solidarity-sustainability-subscribe@googlegroups.com

I would be grateful to get comments, suggestions, correctives, any kind of feedback from the envirotech listserv.

Conference Announcements and Calls for Papers

Second International Congress on Construction History
Queens' College, University of Cambridge

29th March 2nd April 2006
(www.chs-cambridge.co.uk)

The First International Congress on Construction History (which was held in Madrid in 2003) attracted speakers from all around the world and established itself as the leading outlet for all aspects of the history of building construction. Speakers are now sought for the Second Congress to be held at Queens' College, University of Cambridge hosted by the Construction History Society.

Fees, registration and details of accommodation are available at the Congress web site: www.chs-cambridge.co.uk

Conference Announcements and Calls for Papers

ASEH 2006 Call for Papers
Rivers Run Through Them: Landscapes in Environmental History
DEADLINE FOR SUBMISSION: JULY 1, 2005

The program committee for the joint meeting of the American Society for Environmental History and Forest History Society invites panel, paper, and poster proposals for its March-April 2006 meeting in St. Paul, Minnesota. Proposals may address any area of environmental history, but in keeping with the conference themes the committee specifically solicits submissions examining the place of landscapes in environmental history. The conference site, hard by the Mississippi River, is a perfect setting in which to discuss the role of water in defining landscapes, natural and built, and their intersection and evolution. The committee encourages the formation of panels that might focus on the following broad themes:

- *Water and watersheds* - The Mississippi's impact on the development of North America has been immense, and other river systems here and abroad have profoundly influenced the course of life within their bioregions.
- *Cross geographical and transnational boundaries* -Landscapes do not necessarily recognize political boundaries but are often determined by them. Issues such as pollution, wildlife, global climate, population, among others, ought to be discussed across boundaries and borders.
- *Land-use and landscape histories* - Land-use histories are some of the most useful points of reference that inform present decision-making. A growing international focus on valuing historical landscapes is sure to affect political discussions.
- *Cross-disciplinary landscapes* - Environmental history is a product of a transforming intellectual landscape. From the first it has experienced changes in shifts in scholarly emphasis, intensified interactions with other disciplines, from cultural and urban studies to the natural and social sciences, each of which has helped reinvigorate this stillyoung field.

Individual papers are welcome, but they are more difficult to accommodate. To maximize the number of papers yet maintain opportunities for creative interaction between panelists and the audience, the committee also requests that panel proposals be limited either to three papers (commentator optional), or fou rpapers and no commentator. Participants may only present one formal paper, but they may also engage in roundtable, chairing, or commenting duties. To submit a proposal for a paper or a poster, see ASEH's website at <*www.aseh.net*> and click in "conferences." Should you have questions, please contact any member of the program committee:
Char Miller, Chair, Trinity University <*fmiller@trinity.edu*>
Steve Anderson, Forest History Society <*stevena@duke.edu*>
Polly Fry, University of Minnesota <*pfry@hickorytech.net*>
Kathryn Morse, Middlebury College <*kmorse@middlebury.edu*>
Adam Sowards, University of Idaho <*asowards@uidaho.edu*>
Gerald Williams, USDA Forest Service <*gwilliams02@fs.fed.us*>

Paper and poster submission

Download the submission forms at the ASEH website (http://www.h-net.org/~environ/ASEH/conferences.html) and send the completed forms to aseh2006@uidaho.edu.

Conference Announcements and Calls for Papers

2005 Annual Conference of the Society for the History of Technology

The Society for the History of Technology will hold its annual meeting in Minneapolis from November 3-6, 2005. The call for papers deadline has passed.

The conference will offer (optional) history-of-technology-related tours during the day on Thursday. The meeting itself will start Thursday night, Nov. 3, with a plenary, and run through the morning of Sunday Nov. 6.

The hotel is the Hyatt Regency Minneapolis, 1300 Nicollet Mall. The reservations dept is (612)370-1234 or (800)233-1234 or on Hyatt.com
Please be sure to tell them you want a room in the SHOT room block.
Our special SHOT conference rates are $115 single or double, $125 for a triple, and $135 for quadruple (plus taxes).

Further information will be available at the SHOT Website: http://shot.press.jhu.edu/

Envirotechies At Work (Cont. from page 5)

Matthew Booker
NC State University
Current Work: My dissertation is about the tidal margin of San Francisco Bay, and while I am not asking profound questions about the role of technology in reworking the bay shore, technologies are everywhere, under the surface so to speak. My next project is closer to the angle that Ed Russell and Clay McShane and Joel Tarr and others talked about on the list-serve in 2001: animals as technologies. I am pursuing an environmental history of the American oyster industry, with special attention to the oyster's success in the urbanizing, industrializing era of the late nineteenth and early twentieth centuries. How does a creature dependent on clean water manage to not just survive, but thrive in the urban waters of New York harbor, San Francisco Bay, Boston, Baltimore, etc.? How does its (highly modified) life cycle modify common assumptions about animals, food production, and pollution? To me a key element is the modification of oysters themselves, perhaps in ways analogous to what list-serve members described for dogs and horses, or William Boyd's "Industrial Chicken" article in T&C.

Erik M. Conway
Jet Propulsion Lab
Current Work: I'm currently working on two projects in various stages of completion. One of my projects was a history of supersonic transport-related research by NASA. It will be published next year, barring the unforeseen. This relates in several ways to our generic "technology and the environment" theme: it was a rallying cry for the new environmental movement in the early 1970s (and hence political); it introduced Americans to their ozone layer and its troubles (impacting the environment technologically); it caused NASA & NOAA to take atmospheric pollution up as a major new line of research (an example of environment-science feedback); it forced NASA to try to engineer environmentally less-damaging aircraft technologies (environment-technology feedback). I chose to focus the book on last two items on this list, as I was principally interested in how "environmentalism" affected the course of NASA science and technologizing. So in a way, I'm doing the inverse of much of the environmental history field, trying to examine how engineers and engineering institutions have responded to political demands for environmental mitigation.

My other project, a history of NASA atmospheric science, chases the same theme from the science perspective instead of the engineering perspective. How did NASA reconstruct its research program in response to environmental demands? Why did its leaders think entering these politically hazardous waters was a good idea? What new techniques, instrumentation, and even world view, did it bring to the effort? I'm much less interested in hardware than in the choice of research topics pursued by the agency, but what we turn out to be able to measure—clearly a technological issue—matters a great deal.

Envirotechies At Work (Cont.)

Stephen H. Cutcliffe
Science, Technology, and Society Program
Lehigh University
Current Work: I am in the very early stages of looking at environmental implications–both positive and problematic–related to current developments in nanotechnology, for which I hope to be able to frame in a comparative historical context.

Twyla Dell
Graduate student
Antioch New England Graduate School
Current Work: I'm a graduate student working on my thesis on the intersection of technology, energy, and society.

Patrick Franco
Assistant Planner-Transportation
Morristown, NJ
Current Work: I am an environmental planner at the county level of government. I have an undergraduate degree in history and a master's degree in environmental planning and recently took a graduate course in environmental history. I just want to stay involved and informed as I look for a PHD program that is a hybrid of the above mentioned areas.

Yajaira Freites
Associate Research
Departamento de Estudio de la Ciencia(Department of Studies of Science)
Instituto Venezolano de Investigaciones Científicas (IVIC), (Venezuelan Institute, Scientific Research)
Current Work: Research in sociology and social history of science.

Avi Kaplan
University of Sussex
Current Work: I'm currently an MSc student at SPRU - Science and Technology Policy Research, at the University of Sussex (UK). I'm doing a new MSc here that has only just begun this year, entitled "Science and Technology for Sustainability,"

Jordan Kleiman
State University of New York—Geneseo
Current Work: I'm revising a book manuscript on the history of the American branch of the appropriate technology movement. The title is "The Appropriate Technology Movement in American Political Culture," and it is under contract with U. of Pennsylvania Press. I'm also working on a couple of essay-length spin-off projects: one is on the historical development of environmental justice and its relationship to technological issues; the other is a history of the Whole Earth Catalog.

Tim LeCain
Asst. Prof. of History
Montana State University
Current Work: My immediate project is the revision of my book manuscript, "Moving Mountains," which examines the mutual construction of environment and technology during the historical development of twentieth century American mass mining. Open pits and other large-scale mining technologies had complex environmental consequences, which in turn fed-back to affect the technology, resulting in a hybrid enviro-technical system. Mining engineers, geologists, and other engineering scientists, I argue, escaped the traditional boundaries of "the machine" or "the factory" in order to study and attempt to integrate the environment into their technical systems—often with decidedly mixed success. I also examine the cultural and political significance of mass mining as an essential foundation of the American industry and culture of mass production and consumption. Developing projects include a book or edited volume on engineering science and the environment and a study of recreational vehicles and the environment.

Steven A. Moore, Ph.D., AIA
Associate Professor
School of Architecture
The University of Texas at Austin

Envirotechies At Work (Cont.)

Current Work: Moore's research interests are broadly interdisciplinary and focus upon the social construction of sustainable technologies, buildings, landscapes and cities. In his research he employs methods derived from sociology, ethnography, and philosophy. Moore is currently conducting case studies of Austin, Texas; Curitiba, Brazil; and Frankfurt, Germany that investigate the social processes through which those cities claim to have constructed sustainable built environments.

Joy Parr
Interdisciplinary Canada Research Chair
Technology, Culture and Risk,
University of Western Ontario
Current Work: My current field work is in communities in British Columbia, Ontario and New Brunswick radically transformed by large engineering works such as nuclear reactors, heavy water plants, NATO bases and hydro-electric dams. This research considers the sensory and social implications of radical changes in landscapes and taskscapes and late modern conceptions of citizenship. I am also studying vernacular and professional appraisals of risk in Walkerton, Ontario, nutrient management issues in southwestern Ontario.

Frank Popper
Professor, Bloustein School of Planning and Public Policy
Rutgers University
Visiting Professor, Princeton Environmental Institute
Princeton University
Current Work: I am a political scientist by training and a land-use planner by practice. My work in recent years has been on American environmental and regional issues, particularly west of the Mississippi. My wife Deborah Popper and I have focused particularly on the Great Plains, and our proposal for a Buffalo Commons there has touched off a national debate about the future of the region. I am on the governing
boards of the American Planning Association, the Frontier Education Center and the Great Plains Restoration Council and on the editorial board of the journal Housing Policy Debate.

Fredric L. Quivik
Consulting historian of technology
St. Paul, Minnesota
Current Work: I research the histories of historic sites that have an engineering or industrial nature, usual in support of projects aimed at preserving or interpreting those sites. For the latter, I work as an expert witness in Superfund and related litigation concerning the mining industry. I conduct research, write reports, and present testimony concerning the technologies used to process materials, discharge wastes, manage wastes, etc. Such wastes often contain hazardous materials and are therefore the subject of Superfund remediation. More broadly, I am interested in energy and its role in the ways that humans have interacted with the environment.

Erik P. Rau
Visiting Assistant Professor of History
Department of History and Politics
Drexel University
Current Work: My research at the moment is on the history of operations research, which was applied to (among other things) the evaluation of environmental regulation programs. I have also been involved as an expert witness in a Superfund case involving the allocation of cleanup costs. My interests focus on the techniques and methods organizations and groups use to decide what an environmental problem is
and how to measure it.

Dr. Emma Reisz
Junior Research Fellow in History
Jesus College, University of Oxford
Current Work: I work on the history of 'development' in Malaysia, and am interested in particular in a) technology and environment in global trade b) the political and moral economy of divergent approaches to production and c) the construction of models of
global economic and social 'improvement' in environmental and technological context.

Envirotechies At Work (Cont.)

Martin Reuss
U.S. Army Corps of Engineers
Current Work: My present research/writing is on a history of hydrology in the United States. The topic clearly rests at the intersection of science, technology, and public policy, with profound environmental consequences as well.

Christine Meisner Rosen
Associate Professor
Haas School of Business
University of CA Berkeley
Current Work: I'm working on a book on the history of the American response to industrial pollution, 1840-1930. I'm using case law and other materials to explore how American ideas and concerns about industrial pollution evolved over time in relationship to the development of technologies and public policies for protecting people from industrial pollution. The book will connect technology and culture by exploring the mutual feedback relationships between the development of technologies of industrial production, the development of technologies of waste reduction and pollution abatement, and the evolution of popular, scientific, and legal understandings about and interpretations of pollution problems and what to do about them.

Dann Sklarew, Ph.D.
Chief Technical Advisor
International Waters Learning Exchange and Resource Network (IW:LEARN)
United Nations Office for Project Services
(UNOPS) Tokyo, JAPAN
Current Work: I am at the United Nations, working with countries participating in Global Environment Facility-sponsored International Waters (IW) projects. Here IW means any body of water (sea, large marine ecosystem, river, lake, aquifer) which is shared by 2 or more countries. My role is to help ensure they learn from one another's experience. As a result, I enjoy bearing witness to the evolution and transfer of interesting technologies and techniques from region to region to address water scarcity (e.g., rooftop rain collectors), water quality (e.g., village sanitation and water purification), habitat protection (erosion and invasive aquatic weed control) and fisheries management (e.g., artificial reefs that promote fish fry survival and prevent non-artisanal trawling).

Thus, my ET focus has been primarily on water issues in recent years, with a broader interest in water management extending from antiquity to today, as well as the role of IT in ET (about which I've lectured at college level) and space-based ET. Finally, for two years, I taught a course called "Ecology, Technology and Choice" at George Mason University (Fairfax, VA), which focused on applying systems thinking to our choices of technology within the context of ecological sustainability at societal through individual scales.

Anthony Story, M.Sc.
MA student
Institute for the History and Philosophy of Science & Technology University of Toronto **Current Work:** I have recently joined the Envirotech list, after starting an MA at the University of Toronto's Institute for the History and Philosophy of Science
and Technology. My background is in the environmental geosciences. I am interested in environmental conflicts, especially those concerning waste disposal (landfills,
incinerators), and climate change. More specifically, I want to learn more about how interest groups mobilize scientists and engineers, and do their own techno-scientific work in these contexts.

Joel A. Tarr
Richard S. Caliguiri University Professor of History & Policy Department of History Carnegie Mellon University
Current Work: Completing book with Clay McShane on the "City and the
Horse." Next project: a book of my essays on urban infrastructure, some
reprints of old articles and a couple of new pieces.

Frank Ueköetter
Researcher in the Department of History
Bielefeld University, Germany
Current Work: I came to Envirotech when I was doing research on the history of air pollution control, where the nexus between technology and the environment is self-evident. It was less clear when I started to work on conservation in Nazi

Envirotechies At Work (Cont.)

Germany, but again technology became an important part of the story: it is interesting to see how conservationists came not only to accept but even to celebrate technological artifacts at that time. Right now, I am working on a history of agricultural knowledge in the 20th century—and the farmers' knowledge was about technology as much as about the environment—the link between both somehow got lost over the decades, but that certainly should not mean that historians need to ignore this link as well. Both technology and the environment are fields of historical scholarship that are very broad, broader than other fields. I see that multitude of themes and approaches as an inherent richness of the field, and I would want to caution everyone that in defining the meaning of Envirotech, we must not seek a certain thematic canon.

Sarah M. Wade
AJW
Washington, DC
Current Work: I just joined this list yesterday, after coming across it while doing some research for a presentation regarding public perceptions of and public outreach around carbon capture and sequestration (CCS) technologies. I am working to engage the public in support of the basic research necessary to determine if CCS technologies will provide an acceptable option to mitigate climate change - and if so, under what conditions.

Interestingly, the majority of opinions about how to address climate change seem to be converging on at least the notion that it will require many options including advanced or even new technologies, significant increased deployment of some existing/emerging technologies and improved use of common technology. Many also seem to agree that it will take a policy framework, or mandate, to catalyze these responses - as the market does not seem to be an adequate stimulant at this time.

My questions are: in the face of pressure to move relatively quickly, how do you foster large scale technology change (and diffusion /deployment)? What role does competition among technologies play in this development, and can you turn it into a positive impact rather than a negative one? What concrete steps can be used to overcome the momentum of status quo? What are the inherent risks in accelerating technology change and how can they be mitigated?

Jan Wegner
James Cook University (Queensland, Australia)
Lecturer in history
Current Work: History of mining technology and its environmental effects, especially pollution

James C. Williams
Emeritus Professor of History - De Anza College
Vice President - International Committee for the History of Technology
Current Work: Lots of writing projects piled up on my desk to attack – all those things one sets aside quarter after quarter while wrestling with teaching duties. I'm looking forward to getting them done. I'm not sure I have a "specialty"—energy is certainly one, since I wrote a book on energy, tech, and environment focusing on California's historical experience. Perhaps technological landscapes – I've done a couple of papers on that plus organized sessions at ICOHTEC in this. Also, earthquake engineering—I've done a couple of papers on its history in California up through about the 1950s, creating a culture of prevention against natural disasters through technology. I'm becoming more and more interested in maritime things, which ties into my sailing passion.

Thomas Zeller
University of Maryland
Current Work: My current research project, entitled *Consuming Landscapes*, deals with a comparative history of the landscape experience for motorists on parkways in the United States and Germany, 1920-1990.

Carl Zimring
Visiting Assistant Professor
Oberlin College
Current Work: My research and teaching relate to consumption and material reuse in industrial America. I have a book coming out in 2005 with Rutgers University Press entitled *Cash for Your Trash: Scrap Recycling in America*. In it, I explore how material reuse has been transformed due to economic and technological changes (within both the scrap trade and the manufacturing industries that demand scrap materials) as well as social and cultural constructions of waste, value, and environmental quality.