

# ISIENEWS Volume 6 Issue 1 (March 2006)

#### **ISIE Self-Reflection**

## ISIE Member Survey Results Beverly Chevalier (is4ie@yale.edu)

In November 2005 surveys were distributed to more than 800 current and former ISIE members. Here are the results.

Overall, most respondents seem satisfied with the services and benefits offered by the ISIE, but see room for improvement in the geographic focus and content of ISIE publications and conferences, in the quality of ISIE conferences, in the function of the ISIE website, and in networking opportunities for Society members. Of the former members who responded to the survey, most discontinued their Society membership either because it no longer met their professional needs, or because they found the membership rates too high.

The majority of respondents (both past and current members) are satisfied with the Journal of Industrial Ecology and the Society's newsletter, ISIE News, but did provide suggestions for new and improved content for both publications:

- More contributions from engineers and/or engineering/economic collaboration.
- More open to eclectic perspectives—including historical ones.

Respondents recommended more articles on:

- Material flow analysis at regional/national/global scale
- The sociological aspects of industrial ecology
- Public policy and industrial innovation
- IE education outside the US and Europe
- Case examples of real applications and products—nanotechnology, LCA, MFA, urban metabolism

- Statistics and data about the advances of IE around the world
- More focus on European research topics, and on third world or developing country issues
- Research methodology specific to IE
- Clean production technology.

Approximately 60% of respondents have attended at least one ISIE conference. While the cost of Society conferences was a concern for both groups, current members expressed greater satisfaction with the quality and content of ISIE conferences than did former members. Responses from both groups suggest that areas for greatest improvement include consistent quality of conference presentations, a greater focus on IE in developing regions (especially South America and Africa), availability of conference proceedings, and grouping conference sessions by topic. A small but significant number of respondents indicated that they wished ISIE would sponsor more frequent conferences.

Respondents who use the ISIE website suggested improving accessibility to the Members Only pages and the organization of the dissertation database. Another idea was to expand the listing for IE related jobs and make it more interactive.

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#### What's New In ISIE?

more ISIE survey

Suggestions for networking opportunities include an on-line message board for members, regional ISIE chapters, and more frequent ISIE gatherings.

New services requested include developing a speakers' bureau, an experts "bank" where members can take advantage of each other's expertise via consulting services and professional technical assistance.

The ISIE office and leadership are grateful to everyone who responded to the survey and are currently investigating how best to implement your suggestions. Already your feedback is being incorporated into the planning for 2007 ISIE international conference, and some of the improvements you requested to the ISIE website are already being worked on. This is your society and your feedback guides us in building the ISIE into a strong, fiscally viable, and socially valuable organization. Please continue to let us know what we are doing well and what we can do better.

If you haven't done so, but wish to complete a survey, please contact the ISIE office: is4ie@yale.edu subject line: survey request.

#### **Election Results**

The votes are counted and the new members of the ISIE Council are **Edgar Hertwich** and **Valerie Thomas**.

The new members of the Nominating Committee are **Tracy Casavant** and **Paulo Ferrao**.

Congratulations to the new leaders and many thanks to all who voted.

#### **Gordon Research Conference**

Valerie Thomas and Faye Duchin are finalizing the schedule and accepting requests to attend the Gordon Research Conference on industrial ecology. Make your plans now to be in Oxford in August. For more information go to: http://www.grc.org/programs/2006/indust.htm

#### **ISIE 2007**

Join your ISIE colleagues in Toronto, 17-20 June 2007 for the 4th ISIE conference. The Department of Civil Engineering at University of Toronto will host this gathering. Continue to check the ISIE website for updates.

#### Journal of Industrial Ecology News

#### **Endnote and JIE Format**

**Reid Lifset** (reid.lifset@yale.edu)

For authors who use EndNote, the citation management software, the Journal of Industrial Ecology (JIE) has created an Endnote Output Style. This file allows EndNote users to automatically format references and reference lists according the JIE style. The JIE Endnote Output Style can be downloaded from the EndNote website at:

http://www.endnote.com/support/enstyledetail.asp?DKEY=2036 or you can request it from the JIE editorial office <indecol@yale.edu>.

# **Nelcome to ISIE**



#### **ISIE Member News**

#### **Roland Clift Honored**

Editor's Note: The information here was drawn largely from a University of Surrey press release.

At the first of the new year, ISIE member Roland Clift was made Commander of the British Empire for his service to the environment. This is a step below being granted knighthood in the United Kingdom.

Roland stated that his participation with the Royal Commission on Environmental Pollution from 1996 through 2005 was the likely impetus for the award. This unique commission produced several significant policy reports designed to generate positive environmental change in the United Kingdom. In the September 2005 issue of ISIE News Roland discussed some of this work on biomass.

In addition, Roland was recently appointed as a member of the Science Advisory Council of the Department of the Environment, Food and Rural Affairs. This will enable him to continue his involvement in government policy and action on the environment.

Congratulations Roland!

#### Jobs in IE

#### **New Members**

Alcoa Foundation's Conservation and Sustainability Fellowship Program at the University of Michigan, USA

PhD student, PostDoc, Research Assistant, Norwegian University of Science and Technology, Norway

Technology Analyst, Juniper Consultancy Services, UK

Environmental Scientist, Kimberly-Clark, USA

Associate Professor in Operations Management Technology, Arizona State University, USA

Assistant/Associate Professor of Environmental Technology Management, Arizona State University, USA

Assistant Professor of Marketing, Alliant International University, USA

See the ISIE website for more details.

Kelly Scanlon, USA Wendy LeBreton, Canada Sandra Gualtero, USA Colin McMillan, USA Ryan Lanham, USA Ben Pratt, Canada Olivier Brondel, France Eugene Rosa, USA Edward Morton, USA Luk Van Wassenhove, France Eva Heiskanen, Finland William McDonough, USA John Robinson, Canada Daniel Reece, USA Sandina Ponte, USA Tom DiCorcia, USA Bruce McKean, Canada Susan Nesbit, Canada Francesco Girard, Italy Gysbert Korevaar, Netherlands Peter Buley, USA



#### President's Corner

#### What Would C.P. Snow Say?

**Brad Allenby** (Braden.Allenby@asu.edu)

In 1959, C. P. Snow wrote his seminal essay, *The* Two Cultures. It became famous for its identification of the difference between the cultures of the physical sciences and engineering, and that of social science and liberal arts. There are two elements of this work of relevance to industrial ecology today. The first, and perhaps less immediately relevant, is that while Snow became known for his discussion of the different cultures characterizing the two branches of intellectual development, what he regarded as most important about his lecture and subsequent monograph was the focus on the need for all branches of knowledge to address the questions of global inequality, poverty, and disease. It is a good reminder that the

themes of sustainable development, and of at least part of industrial ecology, stant effort is required if we are to improve society.

The second element, of course, is the "two cultures" discussion, which continues to have obvious

relevance for the industrial ecology community. Is industrial ecology an area of study based on the scientific method, or is it instead an adjunct to activism? Regardless of what it appears to be now, what should it be? Such questions, as have been noted by many in various fora, appear to be endemic to our field of interest. Thus, industrial ecologists not only discuss the particulars of different models, data sets, and systems, but more generally what and how we know them, and who or what power structures we serve in observing them. This is not uncomplicated terrain: many engineers and scientists are uncomfortable with an explicitly normative agenda ("industrial ecology is only valuable if it is used to change the world") and view such approaches as undermining

not just the scientific enterprise, but the scientific method itself. The importance of this concern to some American practitioners is perhaps reinforced by the current "Intelligent Design" debate in the United States, which at heart is an effort to renegotiate the Enlightenment by reinstating the Medieval superiority of Biblical authority over secular observation and scientific method. On the other hand, many social scientists or cultural critics think it naïve not to realize that science is a cultural activity, and its particular shape and form are contingent on politics, cultural dominance, and issues of power.

In stating these positions, one necessarily oversimplifies complex arguments, but I believe that each type of dialog contributes not just to our field, but to societies trying to struggle with exceedingly complex questions of values, contin-

The two cultures dichotomy was are not new, and that conimagination; rather these are powerfully different ways of looking at the world...

gent mental models, and the highly complicated systems that are the stuff of industrial ecology. But the "two cultures" aspect of industrial ecology does raise some difficult governance challenges for our community. Among the most important —or, at least, among those to which a humble commentary can respond—is the question of how to provide space for both dialogs to occur. More specifically, how can the institutions of industrial ecology be shaped to support both the normative and technocratic discussions, without generating the disintegrative forces that simply throwing them both together might cause? For as anyone who has worked in the interstices of technocratic and normative disciplines can attest, the two cul-



#### Global Initiatives

#### **ROI Offers IE Materials**

#### **Ramesh Ramaswamy**

(ramesh.ramaswamy@roi-online.org)

The Resource Optimization Initiative has new materials available to the industrial ecology community. First, the book, *Applied Industrial Ecology:* A New Platform for Planning Sustainable Societies is now available free through the ROI website. Priced at \$30 (US) the authors and ROI have decided to make this available to benefit students and researchers in developing countries.

For more information go to: http://www.roi-online.org

Second, ROI has developed an audio-visual presentation to introduce industrial ecology to those new to the subject. The presentation is aimed at policy makers, but is valuable to anyone who wants to propogate industrial ecology concepts. The 8MB presentation is in English and can be downloaded from:

http://www.roi-online.org/AV.zip

Third, the ROI has just completed a study of three agro-industrial systems in India. The results of the study are available in a PowerPoint presentation. The presentation demonstrates how industrial ecology could be brought into the mainstream planning processes of developing countries with real life data.

To download the file, go to: http://www.roi-online.org/Presentation.zip

#### **Brazil Offers Funding for Amazonian Projects**

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The Banco da Amazônia Award for Conscious Entrepreneurship encourages people from around the world to "devote their best creative and strategic capabilities to the conception of concrete solutions for the economic and social development of the Amazon region without any destruction of its ecosystems."

This program seeks diverse projects that generate benefits for all, including preserving and restoring biomass and habitats, extracting and utilizing knowledge, promoting quality of life and the welfare of the local population, generating economic results and any other creative ventures.

The award is \$100,000 (US) and the deadline for entries is April 30, 2006. There are several categories, including applicants who are 30 or younger, those between 30 and 65 or and those over 65 years of age.

For more information go to http://www.bancoamazonia.com.br/premio/home.asp?lang=ing

President's Corner continued

#### IE in Education

tures dichotomy was not, and is not, a figment of Snow's imagination; rather, these are powerfully different ways of looking at the world, and the people deeply invested in either find it difficult to communicate with the other.

We have, therefore, decided to establish a "Commentary" section for this newsletter. It is described in more detail elsewhere in this issue, but what we hope it will do in general is provide a venue for discussion of the "should" questions. Thus, for example, questions of how industrial ecology research should be used to improve consumption patterns, or support non-governmental organization activism, can be raised and debated, at the same time that the technocratic, peer-reviewed industrial ecology research that we all rely on to inform us of actual system state is reported elsewhere, with reduced concern that the data are simply another way to present an explicitly normative argument. In this way, we hope to encourage both elements of the industrial ecology dialog.

There are many reasons why such a course makes sense. To begin with, it maintains cohesion in what is still a forming and growing community that might otherwise be inclined to fragment into smaller, and perhaps non-viable, interest groups. But more fundamentally, the complexity of the systems with which we all deal can only be understood if we are willing to understand, and support, the validity of a number of approaches, even if some of them aren't the ones that we would choose. Snow was right about the two cultures, but just as a healthy society needs both of them, so, too, can industrial ecology benefit by embracing both of them. We will be the richer for it in the end. And, perhaps, we can also fulfill our promise in terms of Snow's first challenge: creating a world that is ethically, and rationally, responsible.



Representatives from Shandang University and Kungliga Tekniska Hogskolan gather to note the beginning of the Joint Research Center in China. Photo courtesy of KTH.

#### Joint Research Center in China Ronald Wennersten (rw@ket.kth.se)

Shandong University in China and Kungliga Tekniska Hogskolan (KTH) in Sweden have joined forces to create the Joint Research Center for Industrial Ecology in China.

The coordinators are planning many activities related to research and education to be held in 2006, including a PhD-level course in Industrial Ecology in August.

For more information go to: http://www.jrcie.org

#### **New IE Dissertations Completed**

Lofving, Erik, 2005, Organizing Physical Flow Data: From Input-Output Tables to Data Warehouses, Linkopings Universitet, Sweden

# Conscious, critical and active people are a prerequisite for progress.

Olof Palme, Prime Minister of Sweden, 1984



#### Commentary

#### **Editor's Note:**

In this new volume of ISIE News we are formalizing a Commentary Section. While we have published commentary in the past, we are now creating a specific "heading" for such articles. Here, authors may express their ideas and opinions pertinent to current issues in industrial ecology research, practice or thought. There is a 1000 word limit. These essays are proofread for grammar, comprehensibility and professionalism but they are not peer reviewed and they do not represent any official ISIE viewpoint.

### Assessing the Political Relevance of Industrial Ecology

Jeff Howard (howardj@uta.edu)
Maurie Cohen (mcohen@adm.njit.edu)

This essay elaborates on our article "Success and its price: The institutionalization and political relevance of industrial ecology," which appears in JIE, 10(1), 2006. An annotated version is available from the authors.

Fifty years from now, will our grandchildren judge IE to have played a major role in the reversal of global environmental decline, or, instead, a peripheral role in society's failure to reverse this process? When industrial ecologists explain the course they charted for the "new industrial revolution," will they be able to do so without remorse? These ponderous questions should sharpen the community's resolve to deeply explore the political character of its pursuits.

It seems likely that IE can achieve considerable institutional "success" without contributing to the pursuit of global sustainability in ways that future generations will regard as appropriate and sufficient. In our view, the prevalent inclination has been to allow the goal of "success" to take precedence over the goal of making an adequate contribution—to define the latter, somewhat carelessly, in terms of the former. We assert that the aim of an adequate contribution should take precedence over the quest for "success" and that "success" should be defined, cautiously and deliberately, in these terms. Addressing this dilemma will require attending to several factors that the IE community too often gives only cursory treatment.

In our view, the apparently common assumption that IE can and ought to be strictly "objective"

and "apolitical" is perilously naïve. Even LCA and similarly technical IE methodologies are deeply normative. And to operate as if the field were not fundamentally a political undertaking is to engage in a particular form of politics—one predicated on technocratic assumptions about the relationship between science, technology, expertise, progress, and power. Several essential questions follow:

- Is IE's emerging mission as "the science and engineering of sustainability" consistent with the apparently widespread assumption that IEbased reform should be voluntary?
- Should IE concentrate on devising ever more comprehensive forms of science and engineering, or might such attempts ultimately serve to exacerbate environmental decline?
- Should the field's emphasis be on developing increasingly sophisticated models, or on promoting relatively simple design heuristics?

While it is appropriate for IE to facilitate even marginal improvements in production systems, the unsustainable character of contemporary industry overall—including many of the firms serving as IE's clients—makes the IE community's frequently palpable alignment with the perspectives of the industrial corporation quite troubling.

- Given their growing stature in environmental affairs, do industrial ecologists have an obligation to publicly critique the performance of major corporations and industrial sectors?
- Should IE actively confront orchestrated efforts to manufacture unsustainable behavior through manipulation of consumer desires (e.g., promotion of fuel-inefficient cars)?
- Should a corporation's patronage of IE exempt it from public criticism by industrial ecologists?

Continued on page 8

More Commentary

Industrial ecologists have a choice between accommodating themselves to prevailing governing philosophies and practices, as they largely have to date, or promoting alternatives. The more prominent the field becomes in shaping society's efforts to promote sustainability, the more explicitly it should aim to make democratic practice more robust.

- Is it reasonable, as some have suggested, to adopt a Trojan horse strategy of embedding IE innocuously within existing systems of governance and subsequently pursuing a more aggressive strategy?
- Does IE have an obligation to actively oppose policies that systematically undermine environmental protections or indefinitely delay regulation?
- Will IE students enjoy adequate career opportunities if the IE community does not actively promote policies that favor closed-loop processes and ecological design?

Our sense is that the IE community's alignment with the perspectives of industry reflects, in part, an insufficiently examined assumption that corporations have a right to conduct their affairs without "interference" from "outsiders." For public oversight of technological decision making to be effective, nongovernmental organizations arguably must have a strong voice in the development and deployment of technical and scientific knowledge and expertise.

- Can IE maintain a rigorous focus on sustainability if its client base consists primarily of industrial corporations?
- If IE's influence in environmental affairs continues to grow, can NGOs adequately participate in these affairs in the absence of strong collaborative relationships with IE?
- Should NGOs gain access to IE expertise only in proportion to their ability to pay for it?
- Should IE periodically invite NGO representatives to join its research teams and governing councils and to critique its methods, political assumptions, and client relationships?

As scholars who have participated actively in ISIE and organized our own research agendas, in part, around IE, it appears to us that the social sciences have not been adequately integrated into the discipline. While a handful of social scientists regularly attend IE conferences, publish in IE literature, and are prominent in fostering IE's institutional

We sense an inclination to regard social science as having little bearing on the substance of the field.

development, the prevailing attitude among many of the field's engineers and natural scientists appears to be that the role of social scientists is to help implement an engineering and natural science vision. Too often we sense an inclination to regard social science as having little bearing on the substance of the field.

- Has there been sufficient effort to bring social systems into IE's "systems science"?
- To what extent should social science perspectives help shape IE's worldview, aims, tenets, and core methodologies?

We have framed this essay provocatively for two reasons. First, we want to highlight the patently political character of our own stances and, by extension, the political character of the stances being embedded, usually tacitly, in IE's emerging institutional arrangements. Second, we have sought to penetrate the defensive shell that often seems to shield the latter stances from examination. We propose that the issues outlined here provide a framework to systematically examine the relationship between the field's potentially contradictory efforts to survive and thrive and its efforts to help propel society decisively toward sustainability. We fear that in the absence of the kind of deliberative appraisal proposed here, the field will continue to develop as a highly technocratic undertaking that will all too easily be overwhelmed by enormous technological, political, economic, and cultural inertia.



#### Conference/Exhibition Listings

#### Go to the ISIE website to submit your conference information.

NHA Annual Hydrogen Conference 2006: Global Progress Toward Clean Energy 12-16 March 2006, Long Beach, USA

6th International Automobile Recycling Conference 15-17 March, 2006, Amsterdam, Netherlands

4th World Water Forum 16-22 March 2006, Mexico City

National Association of Environmental Professionals 23-26 April 2006, Albuquerque, USA

IPSI-2006 AMALFI 23-26 March 2006, Amalfi, Italy

ICSW 2006 26-29 March 2006, Philadelphia, USA

Globe 2006: 9th Biennial Trade Fair & Conference on Business & the Environment 29-31 March 2006, Vancourver, Canada

Take it Back: Win-Win Strategies for Corporations & the Environment

3-5 April 2006, Las Vegas, USA

Ceres Conference 2006 5-6 April 2006, Oakland

17th Global Warming International Conference and Expo (GW17) 19-22 April 2006, Miami, USA

**IPSI-2006 FRANCE** 27-30 April 2006, Carcassonne, France

The 7th China International Environmental Protection Exhibition & Conference 2006 28-30 April 2006, Shanghai, China

Production and Operations Management Society, 17th **Annual Conference** 

28 April-1May 2006, Boston, USA

IPSI-2006 SPAIN 4-7 May 2006, S'Agaro, Spain

NSTI Nanotechnology Conference and Trade Show 7-11 May 2006, Boston, USA

2006 International Symposium on Electronics and the Environment

8-11 May 2006, San Francisco, CA, USA

2006 Greening Rooftops for Sustainable Communities Conference, Awards, and Trade Show 10-12 May 2006, Boston, USA

3rd International Conference and Exhibition On Green Manufacturing Technology and Industry Development for Electronic Products 13-14 May 2006, Tianjin, China

Material Deisgn and System Analysis 16-18 May 2006, Karlsruhe, Germany

Energy, Material and Urban Environment 18-20 May 2006, Paris, France

Persuasive06 18-19 May 2006, Eindhoven, Netherlands

Towards the City Surface of Tomorrow 8-9 June 2006, Vienna, Austria

Energex 2006 12-15 June 2006, Stavanger, Norway

Emerging Theories and Methods in Sustainability Researcy Training Course: Analyzing Complexity 7-17 June 2006, Barcelona, Spain

2nd International Conference on Business, Management and Economics 15-18 June 2006, Izmir, Turkey

Business and Sustainable Development Conference 21-22 June 2006, Washington, DC, USA

2nd International Conference on Quantified Eco-Efficiency Analysis for Sustainability 28-30 June 2006, Egmond aan Zee, Netherlands

11th International Congress for Battery Recycling 28-30 June, 2006, Interlaken, Switzerland

http://www.is4ie.org



More conferences

IPSI-2006 MONTREAL

30 June - 3 July 2006, Montreal, Canada

IPS-USA-2006 NEW YORK 3-6 July 2006, New York, USA

IPS-USA-2006 BOSTON 6-9 July 2006, Boston, USA

7th World Congress on Computational Mechanics 16-22 July, 2006, Los Angeles, USA

Workshops on Sustainable Engineering 17-19, 19-21 July 2006 Pittsburgh, PA

Gordon Research Conference on Industrial Ecology 6-11 Aug 2006, Oxford, UK

The First International Environmental Best Practices Conference

7-10 August 2006, Olsztyn, Poland

Less is More: En Route to Zero Energy Buildings 13-18 August, 2006, Pacific Grove, USA

IPSI-2007 ITALY

19-26 August 2006, Rome, Italy

IPSI-2006 LONDON,

31 August - 3 September 2006, London, UK

First International Conference on Carbon Management at Urban and Regional Levels: Connecting Development Decisions to Global Issues

4-8 September 2006, Mexico City, Mexico

ORBIT 2006: Biological Waste Management-From Global to Local

13-15 September 2006, Weimar, Germany

ConAccount: Dematerialization across scales: measurement, empirical evidence, future options" and policy dialogue "Dematerialization why and how?" 13-15 September 2006, Vienna, Austria

**IPSI-2006 MONTENEGRO** 

23-30 September, Sveti Stefan, Montenegro

BIO Human Resources Conference 25-27 September, 2006, New York, USA IPSI-2006 VENICE, ITALY 12-15 October 2006, Venice, Italy

IHDP-APN International Human Dimensions Workshop 13-26 October 2006, Chiang Mai, Thailand

Institutional Dimensions of Global Environmental Change: Water, Trade, and the Environment 13-26 October 2006, Chiang Mai, Thailand

The fourth Asian-Pacific Landfill Symposium in Shanghai (APLAS Shanghai 2006) 18-20 October 2006, Shanhai, China

Multinational Enterprise and Sustainable Development: Strategic Tool for Competitiveness 19-20 October 2006, Atlanta, USA

Eco Expo Asia 2006: International Trade Fair on Environmental Protection 27-30 October 2006, Hong Kong

Young Scientists' Global Change Conference 7-8 November 2006, Beijing, China

Global Environmental Change: Regional Challenges 9-12 November 2006, Beijing, China

Global Environmental Change Open Science Conference 9-12 Nov 2006, Beijing, China

Material, Minerals, & Metal Ecology 06 14-15 November 2006, Cape Town, South Africa

7th International Conference on EcoBalance 14-16 November 2006, Tsukuba, Japan

**IPSI-2006 SLOVENIA** 

30 November - 3 December 2006, Bled, Slovenia

7th Gathering of the Social Enterprise Alliance 7-10 March 2006, Atlanta, USA

2007 International Symposium on Electronics and the Environment 7-10 May 2007, Orlando, USA

**ISIE 2007** 

17-20 June 2007, Toronto, Canada



#### International Society for Industrial Ecology

The International Society of Industrial Ecology (ISIE) promotes industrial ecology as a way of finding innovative solutions to complicated environmental problems and facilitates communication among scientists, engineers, policy makers, managers and others who are interested in how environmental concerns and economic activities can be better integrated.

#### **Officers**

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#### ISIE News Schedule

Publication Date	Submission Deadline
June 2006 v6 n2	19 May 2006
Sept 2006 v6 n3	18 August 2006
Dec 2006 v6 n4	17 November 2006

Send submissions to the appropriate editor.

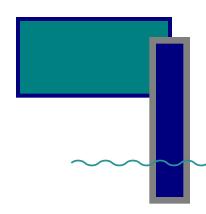
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