**Blood and Oil**

The Great Works Symposium presents the fourth in its 2009-2010 series on "ENERGY"

UNIV 241, 3 credits
SUMMER TERM, 2010

**Course Information:**

We all use energy in our jobs, in our homes, and in our transportation choices. Few of us know where or how it gets to us when we flip the switch, and even fewer understand the conflicts surrounding energy.

What are the conflicts—in business, in governance, in culture—that energy acquisition and use expose? Is conflict inherent within the cradle to grave supply chain of energy? What is sustainable energy and does it exist today? Can it be sustainable if we have conflicts surrounding the control of resources and labor disputes? Finally, where is the balance between our need for economic development and national security and our goals to protect the environment? These questions will form the structure of the course and its discussions.

This course, co-taught by Amy Slaton, Scott Gabriel Knowles, and Dan Moscovici, will take up these questions--guest speakers will be featured, and small group meetings will facilitate critical thinking and research on the topic.

**Class Meeting Days and Times**

Lectures: Wednesday, 6:00-7:20 p.m. Hill Conference Room (Lebow 240)
Sections: Wednesday, 7:30-8:50 p.m.

**Instructors, Contacts, Office Hours**

**Amy Slaton, PhD**
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**Scott Gabriel Knowles, PhD**
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**Dan Moscovici, PhD**
Great Works Symposium Visiting Fellow
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**Assignments and Grades**

Class Participation (including weekly reaction/discussion papers): 25%
Mid-Term Exam: 35%
Term Project: 40%

This will be a very ACTIVE class! Participation comprises a large proportion of your grade. Please attend every lecture and every section/workshop meeting. Come to class having completed the reading assignments, prepared to meet research goals, and ready to take part. This will result in your getting the most possible from the course, and it will create a dynamic classroom environment. You will be evaluated with these expectations in mind.

Your class participation grade will be determined in part by your attendance and your role in section/workshop discussion. Additionally, for the eight weekly guest lectures, weeks 2 through 9, you will be required to submit a brief (a paragraph or two in length) “reaction” paper consisting of questions and/or specific talking points related to the week’s topic and readings. These questions/talking points should be type-written and double spaced, and they should reflect your preparation for the week’s discussion. Please submit your questions to your instructor by e-mail no later than 6:00pm. on Tuesdays. You are to use these as the basis for the Q&A and discussion section during these weeks.

At mid-term you will complete an exam that will evaluate your completion and comprehension of assigned readings, and your understanding of material presented in lectures, panel discussions, and section meetings. The format will be written (essay/ID), and topics will be distributed during week 4. The exam will be due in class during week 5. The last date on which a student may withdraw from the course is July 30th. Therefore, students who score below a grade of 65 on this exam, or miss it for any unexcused reason will be expected to drop the course.

For a good portion of the second half of the course students will work together as a class towards completion of a major term project. Students will choose an area of interest among the major themes under examination in the course; they will then choose a proper format for the project. In collaboration with the group, students will research, write, and submit their work for “publication” by the close of the term. The class will need to start thinking about the scope and direction of this project early on; individual groups will meet in weeks 8 and 9 with course instructors and with expert workshop facilitators to develop their ideas and craft their contributions to the final project. You will present your project in Week Ten of the course. Though a significant portion of your grade on this project will be earned individually, the group dynamic is expected to push you to produce the most interesting and rigorous possible research effort.

**Course Schedule**

**Week 1: June 23: Course Introduction**

Resources/Opening Night Clips (Optional Readings):

Dr. Slaton
[http://www.youtube.com/watch?v=EDtCmQUyz3Q&feature=related](http://www.youtube.com/watch?v=EDtCmQUyz3Q&feature=related" \t "_blank)
[http://www.youtube.com/watch?v=Bk-jrbCi7Sc&feature=related](http://www.youtube.com/watch?v=Bk-jrbCi7Sc&feature=related" \t "_blank)

Dr. Knowles
[http://www.c-span.org/Watch/Media/2010/06/17/OIL/R/33981/Subpage+Oil+Spill.aspx](http://www.c-span.org/Watch/Media/2010/06/17/OIL/R/33981/Subpage%2BOil%2BSpill.aspx%22%20%5Ct%20%22_blank)

Dr. Moscovici
[http://www.hulu.com/watch/149644/saturday-night-live-bp-oil-spill-cold-open](http://www.hulu.com/watch/149644/saturday-night-live-bp-oil-spill-cold-open%22%20%5Ct%20%22_blank)
[http://www.youtube.com/watch?v=2AAa0gd7ClM&feature=channel](http://www.youtube.com/watch?v=2AAa0gd7ClM&feature=channel" \t "_blank)
[http://www.youtube.com/watch?v=HtfevVB5eBk&feature=channel](http://www.youtube.com/watch?v=HtfevVB5eBk&feature=channel" \t "_blank)
[http://www.youtube.com/watch?v=O8NIrw2l9x8](http://www.youtube.com/watch?v=O8NIrw2l9x8" \t "_blank)
[http://www.logomyway.com/contestView.php?contestId=1746](http://www.logomyway.com/contestView.php?contestId=1746" \t "_blank)

**Week 2: June 30: Blood and Oil in the Risk Society**

FINAL PROJECT ASSIGNED

**Guest Speaker**:
Scott Knowles, PhD – Director of Great Works Symposium & Assistant Professor of History – Drexel University
Presentation: [Blood and Oil in the Risk Society](http://www.drexel.edu/~/media/Files/greatworks/pdf_sum10/WK2_BloodandOilPresentation.ashx)

**Assigned Reading**:

* Cutter, Susan (2006) [“The Geography of Social Vulnerability: Race, Class & Catastrophe”](http://www.drexel.edu/~/media/Files/greatworks/pdf_sum10/WK2_Cutter_GeogSocVuln.ashx) *Understanding Katrina: Perspectives from the Social Sciences*.
* Frickel, Scott (2006) [“Our Toxic Gumbo: Recipe for a Politics of Environmental Knowledge"](http://www.drexel.edu/~/media/Files/greatworks/pdf_sum10/WK2_Frickel_ToxicGumbo.ashx) *Understanding Katrina: Perspectives from the Social Sciences*.
* Rodriguez, Havidan & Russell Dynes (2006) [“Finding and Framing Katrina: The Social Construction of Disaster"](http://www.drexel.edu/~/media/Files/greatworks/pdf_sum10/WK2_Rodriguez_FindingFraming.ashx) *Understanding Katrina: Perspectives from the Social Sciences*.
* Wachtendorf, Tricia and James M. Kendra (2006) [“Improvising Disaster in the City of Jazz: Organizational Response to Hurricane Katrina”](http://www.drexel.edu/~/media/Files/greatworks/pdf_sum10/WK2_Wachtend_ImprovisingDis.ashx) *Understanding Katrina: Perspectives from the Social Sciences*.

**Week 3: July 7: "Gasland” Screening**

TOPIC, GROUP & SHORT DESCRIPTION DUE (FINAL PROJECT)
MID-TERM EXAM ASSIGNED

[\*\*\* Download the Midterm Exam\*\*\*](http://www.drexel.edu/~/media/Files/greatworks/pdf_sum10/MidtermExam_070810.ashx)

**Guest Speakers**:
Josh Fox – Director – *Gasland the Movie*

**Assigned Reading:**

* Voices of Central Pennsylvania [“Marcellus drilling transforms the state”](http://www.drexel.edu/~/media/Files/greatworks/pdf_sum10/WK3_VoicesPA_Marcellus.ashx) March 31, 2010.
* “What the gulf spill means for the future of oil?” *NPR* [http://www.npr.org/templates/rundowns/rundown.php?prgId=5&prgDate=06-14-2010](http://www.npr.org/templates/rundowns/rundown.php?prgId=5&prgDate=06-14-2010" \t "_blank)
* ['Gasland' documentary fuels debate over natural gas extraction.](http://www.drexel.edu/~/media/Files/greatworks/pdf_sum10/WK3_Gasland.ashx)June 24, 2010.*The Philadelphia Inquirer.*
* A Colossal Fracking Mess. June 21, 2010. *Vanity Fair*
[http://www.vanityfair.com/business/features/2010/06/fracking-in-pennsylvania-201006](http://www.vanityfair.com/business/features/2010/06/fracking-in-pennsylvania-201006%22%20%5Ct%20%22_blank)

**Week 4: July 14: Earth Democracy**

\*class meets at the Academy of Natural Sciences for this lecture

MID-TERM EXAM DUE

**Guest Speakers**:
Dr. Vandana Shiva – environmental leader, author & activist

**Assigned Reading**:
Shiva, Vandana. (2008). [*Soil Not Oil: Environmental Justice in an Age of Climate Crisis*.](http://www.drexel.edu/~/media/Files/greatworks/pdf_sum10/WK4_Shiva_SoilNotOil.ashx)South End Press.

**Week 5: July 21: Hydropower and Conflict in Costa Rica**

**Guest Speaker**:
Dan Moscovici, PhD – Great Works Symposium Visiting Fellow – Drexel University

**Assigned Readings**:

* Fearnside, Philip. M 2001. [“Environmental Impacts of Brazil’s Tucurui Dam: Unlearned Lessons for Hydroelectric Development in Amazonia.”](http://www.drexel.edu/~/media/Files/greatworks/pdf_sum10/WK5_Fearnside_Amazonia.ashx) *Environmental Management*. Vol. 27, No. 3. pp. 377-396
* Moscovici, Daniel and Craig Wegener. 2008. [“Planning for Scale – Plan Puebla Panama and the Diquis Hydroelectric Project.”](http://www.drexel.edu/~/media/Files/greatworks/pdf_sum10/WK5_Moscovici_Panorama.ashx) *Panorama – University of Pennsylvania’s Journal of Planning and Practice*. Spring 2008. pgs. 1-8.

**Week 6: July 28: Coal – the History – Hands on!**

**Guest Speaker**:
\* Field trip: Number 9 Coal Mine & Museum – Lansford, PA

**Assigned Reading**:
Cook, Samuel R. (2008). [“You Can’t Put a Price on It: Activist Anthropology in the Mountaintop Removal Debate”](http://www.drexel.edu/~/media/Files/greatworks/pdf_sum10/WK6_Cook_Mountaintop.ashx) *Collaborative Anthropologies*. Vol. 1. pp. 138-162.

**Assignment for Missing Field Trip**
[\*\*Download the assignment file here\*\*](http://www.drexel.edu/~/media/Files/greatworks/pdf_sum10/AltFieldTrip_Assignment.ashx)

**Week 7: Aug 4: Foreign Oil: Invasions, Interventions & Regime Changes in America's Expanding Middle East**

**Guest Speaker**:
Michael Sullivan, PhD – Professor of History – Drexel University

**Assigned Readings**:
[American adventurism abroad: invasions, interventions, and regime changes since World War II (cases 4, 25, and 27)](http://www.drexel.edu/~/media/Files/greatworks/pdf_sum10/WK7_AmericanAdvent_CaseStudies.ashx)

**Week 8: Aug 11: Green Energy vs. Fossil Fuels – a Better Comparison**

**Guest Speaker**:
Bradley Layton, PhD – Associate professor of Mechanical Engineering and Mechanics – Drexel University

**Assigned Reading**:
Layton, Bradley. 2008. [“A Comparison of Energy Densities of Prevalent Energy Sources in Units of Joules per cubic meter”](http://www.drexel.edu/~/media/Files/greatworks/pdf_sum10/WK8_Layton_EnergyDensities.ashx) *International Journal of Green Energy*. Vol. 5, pp. 438-455.

**Week 9: August 18: Can Nature Survive the Energy Revolution**

**Guest Speaker**:
William Kunze – Pennsylvania State Director – The Nature Conservancy (TNC)

**Assigned Readings**:

* Kiesecker, Joseph et. al (2009). [“Development by design: blending landscape level planning with the mitigation hierarchy”](http://www.drexel.edu/~/media/Files/greatworks/pdf_sum10/WK9_Kiesecker_DevDesign.ashx) *Front Ecological Environment* Vol. 8 Iss. 5: 261-266.
* McDonald, Robert et. al (2009). [“Energy Sprawl or Energy Efficiency: Climate Policy Impacts on Natural Habitats for the United States of America.”](http://www.drexel.edu/~/media/Files/greatworks/pdf_sum10/WK9_McDonald_EnergySprawl.ashx) *PLoS ONE* Vol. 4. Iss. 8.
* Huntington, Rebecca. (2009). “Proving Ground: Can the Western Energy Boom Be Anything but a Bust for Wildlife” *Nature Conservancy Magazine*[http://www.nature.org/magazine/winter2008/features/art26450.html](http://www.nature.org/magazine/winter2008/features/art26450.html%22%20%5Ct%20%22_blank)

**Week 10: August 25: Research Presentations**

**About the Instructors**

**Scott Gabriel Knowles** has served as the director of the Great Works Symposium since 2007. As an instructor in the Great Works Symposium he has taught: The Atomic Bomb, The Automobile, Media Interactivity, Physical Philadelphia, and The Next Philadelphia. He is also an assistant professor of history in the Department of History and Politics and serves as co-director of the Drexel Engineering Cities Initiative.

Knowles completed his Ph.D. at Johns Hopkins University in the Department of the History of Science, Medicine, and Technology in 2003, after completing an M.A. in history and B.A. in history and philosophy at the University of Texas at Austin.

Knowles’s research interests are centered on cities, technology, and historical change. He takes an interdisciplinary approach to analyzing and writing about cities, including historical, urban planning, sociological, and psychogeographical methods.

He is the author/editor of Imagining Philadelphia: Edmund Bacon and the Future of the City (UPenn Press, 2009), and Experts in Disaster: Risk and Authority in the American Metropolis (UPenn Press, forthcoming). He has also published articles and book reviews in The Next American City, Isis, History and Technology, the New York Times, Public Works Management and Policy, Technology and Culture, Business History Review, Enterprise and Society, and Annals of Science.

**Amy E. Slaton** is an associate professor of history at Drexel University. She is a visiting associate professor at Haverford College, and has taught courses in the history of American science, technology, and architecture, as well as in labor history and race relations. Prof. Slaton holds a PhD in the History and Sociology of Science from the University of Pennsylvania and was the director of Drexel's Master's Program in Science, Technology and Society from 2001 to 2009.

With a focus on the history of American science and engineering, Prof. Slaton has long been interested in the nature of technical expertise and work. She has written on the history of building technologies and materials testing, with a focus on who gets the credit when things go well, and who gets blamed when structures and materials fail. Her book, Reinforced Concrete and the Modernization of American Building, 1900-1930 (Johns Hopkins University Press, 2001), integrated the histories of materials testing, construction labor, building codes and standards, and aesthetic change surrounding the introduction of commercial reinforced concrete in the United States. Prof. Slaton is also interested in understandings of technical aptitude in American manufacturing and engineering more generally, particularly in the role of race in these fields. Her most recent book is Race, Rigor and Selectivity in U.S. Engineering: The History of an Occupational Color Line (forthcoming 2010, Harvard University Press).

Prof. Slaton produces the blog, [STEMequity.com](http://stemequity.com/%22%20%5Ct%20%22_blank), centered on equity in technical education and workforce issues. She is currently working on a study, with Sociology professor Mary Ebeling, of American optimism about high-tech (especially nano-technologies) as a source of new jobs and economic growth. The study asks if this optimism is justified, or if "nano-labor" is another in a long line of historical cases--along with computing, biotech, and green technologies--that has failed to fulfill boosters' excited promises of widespread economic opportunities.

**Prof. Dan Moscovici** is the Drexel University Great Works Symposium Visiting Fellow in Energy for 2009-2010. His focus is both domestic and international. His professional experiences inform his academic training. He completed his PhD from the University of Pennsylvania in Environmental Planning (2009). Prior to this, for five years, he worked for CITGO Petroleum (a wholly owned subsidiary of Petrol de Venezuela S.A.), as a Marketing Pricing Analyst. During his employment, he received an MBA from Villanova University in International/Environmental Management (2003) and an MS from the University of Pennsylvania in Environmental Studies (2005). His Bachelor’s degree was from Lehigh University in Natural Resource Economics (2000).

Dan’s research is focused on land synergies surrounding energy projects and natural resource management. He has active projects in the Northern Forest of Maine, New Hampshire, Vermont, and the Adirondacks regarding impacts of land preservation. Other research interests include research with students in Costa Rica to study effects of hydrological projects on the environment and society and also the impact from eco-tourism on sustainability on the island of Dominica.