GETTING TO GREEN Workshop

Nazli Chroucri, Ph.D. - Professor of Political Science, MIT. Nazli Choucri is Professor of Political Science. Her work is in the area of international relations, most notably on sources and consequences of international conflict and violence. Professor Choucri is the architect and Director of the Global System for Sustainable Development (GSSD), a multi-lingual web-based knowledge networking system focusing on the multi-dimensionality of sustainability. As Principal Investigator of an MIT-Harvard multi-year project on Explorations in Cyber International Relations, she directed a multi-disciplinary and multi-method research initiative. She is Editor of the MIT Press Series on Global Environmental Accord and, formerly, General Editor of the International Political Science Review. She also previously served as the Associate Director of MIT's Technology and Development Program.

The author of eleven books and over 120 articles, Dr Choucri is a member of the European Academy of Sciences. She has been involved in research or advisory work for national and international agencies, and for a number of countries, notably Algeria, Canada, Colombia, Egypt, France, Germany, Greece, Honduras, Japan, Kuwait, Mexico, Pakistan, Qatar, Sudan, Switzerland, Syria, Tunisia, Turkey, United Arab Emirates and Yemen. She served two terms as President of the Scientific Advisory Committee of UNESCO's Management of Social Transformation (MOST) Program.

David Davis, Ph.D. - President, VGO Associates LLC. David has more than 25 years as a leader in the use of advanced computer science for industry and government. He specializes in optimization, simulation and advanced analytics applications. He has created more than 100 successful optimization systems for Air Liquide, NASA, Chevron, Ford Motor Company, Wells Fargo and others. David has written and/or edited four books on genetic algorithm optimization and published more than 40 papers. He was elected in the inaugural class of ten Senior Fellows by the International Society for Genetic and Evolutionary Computation. David has done groundbreaking work in scheduling, planning, network security, economic decision support and fraud detection.

Jan Hauser, Independent Consultant. Jan Hauser is currently an independent consultant doing business as Integrated Innovation. He is a former visiting professor at the Naval Postgraduate School (NPS) in Monterrey, California and was a Principal Architect at Sun Microsystems. Jan is responsible for Sun's membership in the Santa Fe institute. His research interests include chaos and complexity science, humanity and the environment, and a broad range of advanced technologies. For 15 years, Jan was Sun's senior technology representative to the United States intelligence community and in 1996 was challenged by the director of the NPS to rethink how collaboration might be achieved in a bottom-up self-organizing manner; this resulted in a number of papers of which Jan was a coauthor. Jan also worked with Dee Hock, founder of Visa International, on the design and implementation of such self-organizing institutions.

Jan co-authored a paper which takes a comprehensive view of the potential of advanced social networking software implemented over the Internet and the World Wide Web. This exhaustive paper, entitled "<u>The Augmented Social network: Building Identity and Trust into the next-generation Internet</u>" was published in <u>First Monday</u>, a peer reviewed Internet magazine in August 2003. Jan also authored a 50-page overview for the Office of the Director of National Intelligence entitled "A Pathway to Collaboration" which served to provide a vision of how collaboration might occur among and across members of the intelligence community in 2006. Jan has organized and has been a guest speaker at a number of symposia and workshop events that highlighted the interaction of humans and the environment, including The Smithsonian Lecture Series on Complex Adaptive Systems.

Barry Hughes, Ph.D., Director of the Frederick S. Pardee Center. Dr. Hughes is the Director of the Frederick S. Pardee Center for International Futures and is John Evans Professor at the Josef Korbel School for International Studies at the University of Denver. His principal interests are in (1) global change, (2) computer simulation models for economic, energy, food, population, environmental, and socio-political forecasting, and (3) policy analysis. The fundamental concerns that synthesize these interests are (1) developing effective response to long-term global change and (2) improving the long-term human condition. He has developed International Futures (IFs), the widely used computer simulation for study of long-term national, regional, and global issues. He has supported the U.S. National Intelligence Council's reports to the President on Mapping the Global Futures 2020, Global Trends 2025, and Global Trends 2030. He provided long-term global forecasting for the United Nations Environment Programme's Global Environment Outlook 4.

He was a principal researcher in European Commission projects on the New Economy and on Information and Communications Technology. He has contributed research to projects of RAND, the Central Intelligence Agency, the United Nations Human Development Report, United States Institute of Peace, and many other organizations.

Stuart A. Kauffman is an experimental and theoretical biologist. Kauffman has written about three hundred articles and four books: *The Origins of Order* (1993), *At Home in the Universe* (1995) and *Investigations* (2000), published by Oxford University Press. Most recently he published *Reinventing the Sacred* (2008), Basic Books. Kauffman is well known for arguing, in Origins of Order and At Home in the Universe, that self-organization, as well as Darwin's natural selection, are twin sources of order in biology. Thus we must rethink the becoming of the biosphere. *Investigations* and *Reinventing the Sacred* argue, radically, that the becoming of the universe, biosphere, economy, and culture cannot be sufficiently described by natural laws, but are creative and open, that we not only do not know what will happen, but do not even know what can happen. Thus, reason is an insufficient guide to living our lives forward and we must reunite our entire humanity, find a sharable sense of the sacred, and a global ethic to undergird the generative coevolution of our 30 or more civilizations.

Kauffman holds bachelor's degrees from Dartmouth and Oxford. He earned his M.D. at the University of California Medical School. He has held faculty positions at the University of Chicago, National Institutes of Health, University of Pennsylvania, the Santa Fe Institute, and, most recently, was the Founding Director of the Institute for Bio complexity and Informatics at the University of Calgary. He was awarded a MacArthur Fellowship in 1987, is a Fellow of the Royal Society of Canada, was awarded the Gold Medal of the Acadamia di Lincea of Rome and holds an honorary doctorate from the Universite catholique de Louvain in Belgium.

Will Moore, Ph.D., Alumni Professor of Political Science, FSU. Ph.D., University of Colorado at Boulder, 1991. Areas of interest include international and third world politics, violent conflict within and between countries, human rights, and conflict resolution.

Moore's research focuses primarily on violent political conflict. His early work addressed Protest and Rebellion, Dissent and Repression, the nexus of Domestic & International Conflict, and Ethnic Conflict. More recently, his research has focused on Conflictual Foreign Policy Behavior and Forced Migration. He also does work on IR Methods and Political Economy, and is presently conducting studies that disaggregate national-attribute analyses of civil war as well as research on the probability that governments use torture. His plans include a project that continues his work on rational expectations models of conflictual foreign policy behavior. **Philip Schrodt, Ph.D.,** is a senior research scientist at the statistical consulting firm Parus Analytical Systems. He received an M.A. in mathematics and a Ph.D. in political science from Indiana University in 1976, and has held permanent academic positions at Pennsylvania State University, the University of Kansas, and Northwestern University. He has also held research appointments in the United Kingdom and Norway, and has taught and done field research in the Middle East.

Dr. Schrodt's major areas of research are quantitative models of political conflict and computational political methodology. His current research focuses on predicting political change using statistical and pattern recognition methods, research that has been supported by the U.S. National Science Foundation, the Defense Advanced Research Projects Agency, and the U.S. government's multi-agency Political Instability Task Force.

Dr. Schrodt has published more than 85 articles in political science, is past president and a fellow of the Society for Political Methodology, and his Kansas Event Data System computer program won the "Outstanding Computer Software Award" from the American Political Science Association in 1995.

Caryn Devins is currently a law clerk for the US District Court in the Western District of Virginia. She graduated Phi Beta Kappa from the University of Vermont and magna cum laude, Order of the Coif from Duke University Law School. Last year, she clerked for the Chief Justice of the Vermont Supreme Court, and in the upcoming year she will be clerking on the Second Circuit Court of Appeals.

Caryn has been collaborating with Stuart Kauffman for several years, studying the relationship between complexity theory and legal institutions. Most recently, they co-authored a paper with several others entitled "Against Design" that Caryn presented at the World Interdisciplinary Network for Institutional Research Conference in London.

Philip Bobbitt is Herbert Wechsler Professor of Federal Jurisprudence at Columbia University. He has published eight books: Tragic Choices (with Calabresi); Constitutional Fate; Democracy and Deterrence; U.S. Nuclear Strategy (with Freedman and Treverton); Constitutional Interpretation; The Shield of Achilles: War, Peace and the Course of History; Terror and Consent: the Wars for the 21st Century; and most recently The Garments of Court and Palace: Machiavelli and the World That He Made.

Bobbitt is a Fellow of the American Academy of Arts and Sciences. He is a member of the Commission on the Continuity of Government. He has served as Law Clerk to the Hon. Henry J. Friendly (2nd Circuit), Associate Counsel to the President, the Counselor on International Law at the State Department, Legal Counsel to the Senate Iran-Contra Committee, as well as Director for Intelligence, Senior Director for Critical Infrastructure, and Senior Director for Strategic Planning at the National Security Council. He is a former trustee of Princeton University; and a former member of the Oxford University Modern History Faculty and the War Studies Department of Kings College, London. **Michael D. Ward,** Ph. D. Michael focuses on conflict and cooperation at the international and domestic scale, as well as questions of democratization, globalization, international commerce, and military spending. His current projects concentrate on creating predictive heuristics for decision making. He currently is involved in several, funded forecasting efforts, spanning force protection, political instability, and crisis early warning.

He is recipient of over 20 research grants, concentrating on a variety of topics related to international peace and commerce in the context of the dependencies among international political and economic actors. He also collaborates with political scientists, economists, network scientists, geographers, ethnographers, and remote sensing specialists to study the dynamics of conflict. He is an elected fellow of the Political Methodology Society. Ward has published ten books and ten dozen articles in a variety of disciplines and languages. He has held several NSF grants as well as served on several NSF review panels in a variety of disciplines. He has also received research funding from DARPA and ONR.

He was principal investigator of an NSF Graduate Research Traineeship award at the University of Colorado. He served on the board of directors of the Center for Spatially Informed Social Science (an NSF Center at the University of California at Santa Barbara) and held a Chaire Municipale in the faculty of economics at the University of Pierre Mend`es France in Grenoble, France. He co-founded the working group on political geography of the European Consortium of Political Research and serves on the editorial boards of several major journals in geography, economics, and political science.

He also works in the fields of network and spatial statistics and inference for stochastic processes. He has introduced the use of spatial models as well as cartographic techniques in the field of political science and international relations. He was a founding member of the Center for Statistics and the Social Sciences at the University of Washington. He has served as (elected) Vice President of the International Studies Association, and (elected) President of the Conflict Processes Section of the American Political Science Association, in addition to service on a number of professional committees. He has consulted for a variety of companies and governmental agencies. His lab Web sites are predictiveheuristics.com and mdwardlab.com.