



**Symposium on Transdisciplinary Sustainability Science**

**March 22–23, 2018**

**Morgan Hall – Temple University**



**Sponsored by:**

**Temple University's Center for Sustainable Communities**

## Symposium Overview and Aims

This symposium brings together scholars working on the social, environmental, economic, policy and cultural dimensions of sustainability science to inspire and outline the next frontier of research on sustainability science. The aim of the event is to identify gaps, provide a conceptual framework, and outline a transdisciplinary sustainability science research agenda with key questions and funding strategies for research proposals.

Our motivation emerges from the acknowledgment that the magnitude of the challenge to protect both human well-being and essential life supporting systems requires science to transcend from understanding towards solving problems that emerge from the interaction between human and natural systems (DeFries et al. 2012, Miller et al 2014, Castree 2015). The integration of discovery-based and solutions-based research requires transdisciplinary approaches that bring together disparate modes of inquiry between the social, the earth, and the environmental sciences (Mooney et al. 2013, Castree et al. 2014, Liu et al 2015). Construction of such frameworks is both conceptually and technically challenging, because it involves the interplay between human actions and decisions and environmental and ecological processes that support life on Earth (Liu et al. 2015, Verburg et al. 2015).

The event will focus on three themes: i) envisioning sustainable futures; ii) institutional and technological transitions toward sustainability and iii) defining the role of transdisciplinary science and academics on the implementation of transformational policies toward sustainability. Program participants will discuss topics such as: energy transitions and/or socio-technological change; institutional transformations and governance mechanisms for sustainability; urban growth and urban footprint, urban-rural interdependencies; societal values, science communication; ecosystem change; climate, health and wellbeing; food production, consumption and access; sustainable use of water resources; and social, economic and environmental inequalities.

The deliverable outcomes of the event are to: i) outline a synthesis paper about the state of knowledge, gaps and priority contributions of transdisciplinary research to understand and address pressing sustainability challenges; ii) develop a white paper outlining a collaborative research strategy for environmental change and sustainability science research and iii) identify potential strategies for collaboration between participant institutions and researchers. The university research community is invited to engage in this process through the symposium and in follow up activities as we collectively outline an agenda for the future sustainability science research agenda at Temple.

# Program of the Symposium

Day 1. March 22: Morgan Hall 27

## Morning session

Time	Activity	Speaker	Institution
8:00–8:45	Registration and breakfast		
8:45–9:30	Sustainability and environmental change research at Temple University	Michele Masucci, Ph.D. Vice President for Research Melissa Gilbert, Ph.D. Director, Center for Sustainable Communities	Temple University
9:30–10:30	Panel I: Sustainability research at Temple University Moderator: Kate Wingert–Playdon, Associate Dean of the Division of Architecture and Environmental Design. Participants: Eric Cordes, Blair Hedges, Sudhir Kumar, Rominder Suri, Laura Toran		
10:30–11:00	Morning break		
11:00–11:40	Reframing sustainability through a lens of equity and social justice	Robin Leichenko, Ph.D.	Rutgers University
11:40–12:20	Global Unequal Environmental Exchange	Klaus Hubacek, Ph.D.	University of Maryland
12:30–12:40	Greetings to participants. Richard Deeg Dean of the College of Liberal Arts		
12:30–1:30	Keynote speaker and lunch: Land System Architecture: Lessons from Land System Science for Urban Sustainability	B. L. Turner II, Ph.D.	Arizona State University

### Afternoon session

<b>Time</b>	<b>Activity</b>	<b>Speaker</b>	<b>Institution</b>
1:30–2:10	All Things Considered: Black Faces, White Spaces & Dreaming a Green Future	Carolyn Finney, Ph.D.	University of Kentucky
2:10–2:50	Anti-Carbon Democracy: Building a Climate Politics that Can Win	Matthew Huber, Ph.D.	Syracuse University
2:50–3:20	Afternoon break		
3:20–4:00	Getting to Green: The Role of Facts and Values in the Era of Trump	Rachael Shwon, Ph.D.	Rutgers University
4:00–4:40	Climate and health education as a strategy to build more secure future communities.	Gilma Mantilla, MD	Universidad Javeriana
4:40–5:30	Reception and poster session		

**Day 2. March 23: Morgan Hall D301**

<b>Time</b>	<b>Activity</b>	<b>Responsible</b>	<b>Institution</b>
8:00–9:00	Breakfast		
9:00–10:00	Panel II: Sustainability research at Temple University Moderator: Heather Murphy. Assistant Professor, College of Public Health. Participants: Victor Gutierrez–Velez, Kevin Henry, Arianne Middel, Hamil Pearsall, Leslie Reeder–Myers, Brent Sewall		
10:00–10:10	Greetings to participants. JoAnne A. Epps Executive Vice President and Provost of Temple University		
10:10–10:30	Morning break		
10:30–11:10	The Illusive Quest to Make Sustainability Science Matter	Ruth DeFries, Ph.D.	Columbia University
11:10–11:50	Local Government and Sustainability	Sarah Wu Deputy Director	Office of Sustainability, City of Philadelphia
11:50–12:30	Can environmental justice lead us to more sustainable and resilient water resources?	Javier Arce– Nazario, Ph.D.	University of North Carolina
12:30–12:45	Concluding remarks	Melissa Gilbert, Ph.D.	Temple University

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**The Center for Sustainable Communities at Temple University**

**The College of Liberal Arts at Temple University**

**The Office of the Vice President for Research at Temple University**

## **About the Center for Sustainable Communities at Temple University**

The Center for Sustainable Communities at Temple University, Directed by Dr. Melissa R. Gilbert, conducts integrated social and environmental research on natural, technological, and socio-economic systems to address the challenges of sustainability—how can we meet the needs of people locally and globally through equitable, innovative and practical solutions that protect the environment which sustains life on the planet.

The Center for Sustainable Communities (CSC) at Temple University Ambler was established in July 2000 to develop and promote new approaches to protect and preserve quality of life through sustainable development. The Center, housed in the College of Liberal Arts, draws on resources at both TU Ambler and Main Campuses to conduct interdisciplinary research and offer educational and community outreach programs. A working resource for government agencies, community organizations, and industry, the CSC provides objective information and services to improve decision-making relative to sustainable development. The Center draws on expertise from across the social and environmental sciences and diverse methodological approaches that include geospatial analysis and techniques, community-based research and citizen science.

## Invited speakers



Javier Arce Nazario,  
University of North  
Carolina

Dr. Arce Nazario's work has focused on integrating interdisciplinary approaches to better understand environmental change and people's interaction with the landscape. Most recently he has investigated water quality and adaptability to extreme precipitation events in Puerto Rico. His interests specifically include understanding how watershed composition impacts water quality in the tropics, assessing the economic impact of extreme precipitation events, and exploring how community water management can be viewed through the lens of environmental justice. He is also interested in using historical orthophotography as a tool for education and to encourage community involvement in water quality and environmental concerns. Dr. Arce Nazario studied Ecology, Evolution and Environmental Biology at Columbia University, writing his dissertation on how humans and rivers shape the Peruvian Amazon landscape. Before joining the Geography program at UNC, he held a UC President's Postdoctoral Fellow position at UC Berkeley, and professorships at the University of Puerto Rico campuses at Utuado and Cayey. He has been awarded the Presidential Early Career Award for Scientists and Engineers (PECASE), the Fulbright Fellowship, and the Harry S. Truman Leadership Scholarship.



Ruth Defries,  
Columbia University

Dr. DeFries is a professor of ecology and sustainable development at Columbia University in New York. She uses images from satellites and field surveys to examine how the world's demands for food and other resources are changing land use throughout the tropics. Her research quantifies how these land use changes affect climate, biodiversity and other ecosystem services, as well as human development. She has also developed innovative education programs in sustainable development. DeFries was elected as a member of the U.S. National Academy of Sciences, one of the country's highest scientific honors, received a MacArthur "genius" award, and is the recipient of many other honors for her scientific research. In addition to over 100 scientific papers, she is committed to communicating the nuances and complexities of sustainable development to popular audiences, most recently through her book "The Big Ratchet: How Humanity Thrives in the Face of Natural Crisis." DeFries is committed to linking science with policy, for example through her involvement with the Environmental Defense Fund, Science for Nature and People, World Wildlife Fund, and reconciling conservation and development in central India.



Dr. Finney is a writer, performer and cultural geographer. As a professor in Geography at the University of Kentucky, she is deeply interested in issues related to identity, difference, creativity, and resilience. In particular, she explores how issues of difference impacts participation in decision-making processes designed to address environmental issues. More broadly she likes to trouble our theoretical and methodological edges that shape knowledge production and determine whose knowledge counts. Carolyn is grounded in both artistic and intellectual ways of knowing - she pursued an acting career for eleven years, but a backpacking trip around the world and living in Nepal changed the course of her life. Motivated by these experiences, she returned to school after a 15-year absence to complete a B.A., M.A. and Ph.D. The aim of her work is to develop greater cultural competency within environmental organizations and institutions, challenge media outlets on their representation of

Carolyn Finney,  
University of Kentucky

difference, and increase awareness of how privilege shapes who gets to speak to environmental issues and determine policy and action. Carolyn has appeared on the Tavis Smiley show, MSNBC, NPR and has been interviewed for numerous newspapers and magazines. A interview with Carolyn in the Boston Globe was cited as one of the top ten ideas/stories of 2014. She served on the U.S. National Parks Advisory Board working to assist the National Park Service in engaging in relations of reciprocity with diverse communities. Her first book, *Black Faces, White Spaces: Reimagining the Relationship of African Americans to the Great Outdoors* was released in 2014 (UNC Press).



Klaus Hubacek,  
University of Maryland

Dr Hubacek is an ecological economist with a research focus on conceptualizing and modeling the interaction between human and environmental systems and developing and modeling scenarios of future change. Klaus has worked extensively with stakeholders in participatory research projects and led large interdisciplinary research teams. He has published more than 200 articles in journals, books and research reports on topics such as climate change adaptation and mitigation, participatory modeling, management of ecosystems services, land use change and governance. Klaus has conducted studies for a number of national agencies in Austria, China, Japan, UK, and U.S. and international institutions such as the European Statistical Office (EUROSTAT), the International Union for Conservation and Nature (IUCN), and the World Bank. Currently, he is on the advisory board for the City of Shanghai Climate Center in China and for the Sustainable Land Management Program of the German Federal Ministry of Education and Research; he serves on the editorial board of a number of scientific journals and is council member of the International Input-Output Association.



Matt Huber,  
Syracuse University

Dr. Huber is interested in three areas. (1) The relationship between oil, capitalism, and the politics of “life” in the United States. (2) The relationship between industrial capital and ecological degradation (3) The role of capital investment in shaping governance and property relations in mining territories. In his book, *Lifeblood: Oil, Freedom and the Forces of Capital* (University of Minnesota Press, 2013) he looks beyond the usual culprits—Big Oil, petro-states, and the strategists of empire. The book finds a deeper and more complex explanation for our ‘oil addiction’ in everyday practices of oil consumption. He suggests that those practices have in fact been instrumental in shaping the broader cultural politics of American capitalism. His new research focuses on making visible the “hidden abodes” of industrial production -- spaces of intensive material and energy throughput, emissions, and waste production. He suggests political ecology in general and the politics of climate change in particular have not paid sufficient attention to such the industrial core of our nature-society metabolism. He received the 2014 James Blaut Award in recognition of innovative scholarship in cultural and political ecology from the Cultural and Political Ecology Specialty Group of Association of American Geographers.



Robin Leichenko,  
Rutgers University

Dr. Leichenko's research intersects the fields of economic geography and human dimensions of global environmental change. Her work examines how and why processes of global economic and environmental change differentially affect cities, regions and sectors, and the implications of these processes for questions of vulnerability, equity and sustainability. Her book, *Environmental Change and Globalization: Double Exposures* (with Karen O'Brien, Oxford University Press, 2008), was awarded the 2009 Meridian Book Award for Outstanding Scholarly Work in Geography from the Association of American Geographers. The book presents a generalizable approach for analysis of many types of interactions between global environmental change and globalization. Current funded projects explore three inter-related issues: economic vulnerability and resilience to climate change; economic and social equity implications of climate change impacts and adaptation; and the interplay between global change processes and urban spatial development. These projects are focused on coastal zones in New Jersey, New York, and the Caribbean, and she also has research interests in South Asia, China, southern Africa, and the Arctic. She is serving as a Review Editor for Working Group II of the IPCC Fifth Assessment Report, and she recently completed service on an NRC Panel on Climate Change and Social and Political Stresses. She is Associate Editor for *Urban Climate* and serve on the editorial boards of *Economic Geography*, *Growth and Change*, and *Journal of Extreme Events*. She is also currently chairing the AAG Economic Geography Specialty Group (EGSG).



Gilma Mantilla,  
Universidad Javeriana

Gilma Mantilla is a medical doctor and epidemiologist with over 25 years of public health experience on designing and implementing public health policy, health promotion and disease control programs and disease surveillance and control systems at international, national and local levels. In the last 12 years with extensive engagement in policy processes related to the development of effective demand for climate information including the implementation of innovative tools and protocols for creation, integration and dissemination of knowledge and information related to climate and public health. She also contributes to applied research to produce risk profiles of selected climate-sensitive diseases by country and region and development of partnerships to assess and verify climate and health information. Education and training have been key components of Gilma's work; she has organized training courses, developed curriculum and trained international public health staff in public health management and public health policy. Lately she has organized training courses and developed curriculum on Climate Information for Public Health local and internationally.



Rachael Shwom,  
Rutgers University

As associate professor in the School of Environmental and Biological Science's Department of Human Ecology, Dr. Shwom conducts research that links sociology, psychology, engineering, economics, and public policy to investigate how social and political factors influence society's responses to energy and climate problems. More specifically she has studied public opinion on climate change, household behaviors to mitigate climate change, and NGO politics of energy and climate change in the U.S. and China. Since arriving at Rutgers eight years ago, Professor Shwom, who became Associate Director of the Rutgers Energy Institute (REI) in July 2017, has actively participated in REI and has served as a key member of its Energy Economics, Environment, and Policy Systems strategic planning committee. Rachael has also served on the Rutgers Climate Institute's advisory committee and is currently a Co-PI on a multi-university, \$1.5 million National Science Foundation grant on "Reducing Household Food, Energy and Water Consumption: A Quantitative Analysis of Interventions and Impacts of Conservation." Since 2003, she has served on: the American Statistical Association's Advisory Committee to the Department of Energy's Energy Information Administration, the American Sociological Association (ASA)'s Task Force on Climate Change from 2011-2015, and Chaired the Research and Publications Committee of ASA's Environment, Technology and Society Section from 2015-2016. Prior to her current position, Rachael was a Christine Mirzayan Science Technology and Policy Fellow at the National Academies of Sciences and a Michigan State University Environmental Science and Policy Fellowship recipient (Ph.D., Sociology 2009). From 2001-2004, Rachael worked in the utility demand side management sector.



B.L. Turner II,  
Arizona State  
University

Dr. Turner II is a geographer and human-environmental scientist who works on land change from prehistory to present, urban land system design, vulnerability and resilience, and sustainability. He works on deforestation, primarily in Mexico and Central America, and urban design in arid environments, especially the American Southwest. Professor Turner has been involved in a number of international and national science programs examining global environmental change including those dealing with land systems of the International Geosphere-Biosphere Programme, the International Human Dimensions Programme, DIVERSITAS, and the U.S. National Climate Assessment, and is a senior review editor for *Climate Change and Land: An IPCC Special Report*. He is also the Associate Editor of the *Proceedings of the National Academy of Sciences* focused on sustainability. He teaches courses society and environment, sustainability, and land systems.



Sarah Wu is the Deputy Director of the City of Philadelphia Office of Sustainability. Sarah manages the City of Philadelphia's climate adaptation planning and oversaw the 2016 update of the City's sustainability plan, *Greenworks: A Vision for a Sustainable Philadelphia*. She is also on the executive leadership team of the Philadelphia Food Policy Advisory Council, which connects Philadelphians and their local government to create a more just food system. Prior to joining the Office of Sustainability, Sarah helped implement Opportunity NYC, an incentive program working to improve the health, employment, and education of New Yorkers in poverty, and researched national environmental policies at the Environmental Law Institute in Washington, DC. Sarah holds an undergraduate degree from Williams College and a Masters in Urban Planning from New York University.

Sarah Wu  
Deputy Director  
Office of  
Sustainability,  
City of Philadelphia

## Temple University Participants



Eric Cordes  
Biology

Dr. Cordes works in some of the most remote environments on Earth through his exploration of the deep sea. He has worked on the ecology and conservation of the deep sea for over 20 years, spending over a year at sea on over 25 research cruises and making over 35 dives in the manned submersibles Alvin and Johnson Sea-Link. The research in his lab is focused on understanding the areas of the deep sea that support the highest biomass communities: deep-water coral reefs, natural hydrocarbon seeps, and hydrothermal vents. He studies these ecosystems at all levels of organization, from energy flow in ecosystems and patterns of community assembly, down to gene expression and microbial processes. Dr. Cordes worked on deep-sea corals for his Master's thesis at Moss Landing Marine Labs, worked on cold-seep ecology for his Ph.D. at Penn State University, and studied the microbial communities within hydrothermal vent chimneys during his NSF Post-Doctoral Fellowship at Harvard. At Temple, his lab has continued to explore the deep Gulf of Mexico while working on the effects of the Deepwater Horizon oil spill on deep-sea coral communities and the effects of ocean acidification on the reef-forming deep-sea coral *Lophelia pertusa*. Ongoing investigations in the Cordes lab extend to the corals of the deep seamounts in the Phoenix Islands Protected Area and the seeps off the Pacific coast of Costa Rica. This work has been funded by NSF, the NOAA Office of Ocean Exploration and Research, the NOAA Office of Response and Restoration, the US Bureau of Ocean Energy Management, the Gulf of Mexico Research Initiative, and the Schmidt Ocean Institute. His research efforts have been recognized in the Caldwell Distinguished Mentoring Award and the Dean's Distinguished Award for Excellence in Research.



Melissa Gilbert  
Geography and Urban  
Studies

Dr. Gilbert is Director of the Center for Sustainable Communities, and Professor and Chair of the Department of Geography and Urban Studies at Temple University. Her research interests are in the areas of feminist and critical race theory, economic and welfare state restructuring, and the intersection of urban inequalities and lack of access to information and communication technologies. Her research has been supported by the Fulbright Commission, the National Science Foundation, and the Social Science Research Council. Her research has been published in journals such as the *Annals of the Association of American Geographers*, the *Professional Geographer*, *Urban Geography*, *Geoforum*, *Transactions in GIS, and Information, Communication & Society*. With Dr. Michele Masucci, she published *ICT Geographies: Strategies for Bridging the Digital Divide*, (2011, Praxis (e) Press). She has worked with community organizations related to economic empowerment and digital inequalities and is a former member of the Montgomery County Planning Commission Board in Pennsylvania.



Victor Gutierrez-Velez  
Geography and Urban  
Studies

Dr. Gutierrez-Velez aims to identify, understand and anticipate changes over space and time in order to facilitate transitions toward sustainability. He does this through a combination of remote sensing, spatial-temporal simulation, machine learning, and prediction modeling, among others. His research involves 1) the translation of remote sensing data into knowledge for decision-making on biodiversity and ecosystem management and planning 2) the characterization of commodity agricultural expansion and its influence on socio-environmental processes in rural tropical landscapes and 3) the understanding of social and environmental drivers of infectious disease risks in Pennsylvania. Dr. Gutierrez-Velez has a master's degree in Geography from Clark University and a Ph.D. in Ecology, Evolution, and Environmental Biology from Columbia University.



Blair Hedges  
Biology

Dr. Hedges uses genomics to explore the patterns and mechanisms that have shaped the tree of life, from its origin to the present. These include speciation, extinction, diversification, biogeography, and the multi-dimensional evolution of biodiversity. He is especially interested in how the planetary environment has affected the evolution of life, such as in continental drift, sea level variation, and climatic change, as well as the impact of deforestation on current species. His studies of biodiversity in Haiti has led him to focus recently on conservation efforts, where he identifies the last remaining critical ecosystems in the country and determines threats to their survival. Together with a Haitian executive, he co-founded Haiti National Trust to purchase and manage these ecosystems for the country before they disappear from deforestation. Most of these critical ecosystems are mountains that provide environmental stability and drinking water for Haitians.



Kevin Henry  
Geography and Urban  
Studies

Dr. Henry is a medical geographer. His research and teaching focus on the intersection between geography, public health and epidemiology. His research focuses on describing and understanding place-based and geographic disparities in health and disease, with a specific emphasis on applied geographic methods and the role geographic factors play on cancer outcomes and prevention. He is especially interested in the interactions between socioeconomic, demographic and neighborhood environmental factors that influence human health and disease and how we can measure these factors to better understand various health outcomes.



Sudhir Khumar  
Biology

Dr. Khumar uses integrative and comparative genomic approaches to make fundamental discoveries in phylogenomics and phylomedicine. The taxonomic breadth of his studies spans the tree of life and the timescale of mutation transmission ranges from generation to generation and cell division to cell division. The resulting patterns of evolutionary conservation and divergence form the basis of Pattern-Process-Prediction-Product (P4) approach that enables him to construct research investigation ranging from scaling the tree of life to time (Phylogenomics) to forecasting disruptive mutation found in germline and somatic genomes (Phylomedicine). In pursuit of these biological discoveries, he is developing new statistical methods and computer algorithms to quickly analyze large-scale datasets.



Ariane Middel  
Geography and Urban  
Studies

Dr. Middel's research interests are directed toward understanding the dynamics of urban climate to develop adaptation and heat mitigation strategies, specifically addressing the challenges of sustainable urban form, landscapes, and infrastructure in the face of climatic uncertainty in rapidly urbanizing regions. For the past five years, she has advanced the field of urban climatology through applied and solutions-oriented research employing modeling and observations to investigate sustainability challenges related to urban heat islands, outdoor thermal comfort, water use and quality, energy use, and human-climate interactions in cities. Dr. Middel currently serves a 4-year term (2016-2020) on the Board of the International Association of Urban Climate (IAUC), the premier international organization for researchers engaged in all aspects of urban climate scholarship. Dr. Middel received her PhD in Computer Science from University of Kaiserslautern, Germany and holds a BSc/MSc in Geodetic Engineering from the University of Bonn, Germany.



Hamil Pearsall  
Geography and Urban  
Studies

Dr. Pearsall's research examines the equity dimensions of urban greening and urban sustainability planning in North American cities, with recent work on green gentrification, vacant land management, urban agriculture, and urban forests. Her first book, co-authored with Christina Rosan, titled "Growing a Sustainable City? The Question of Urban Agriculture" was published in January 2018 by the University of Toronto Press.



Leslie Reeder-Myers  
Anthropology

Dr. Leslie Reeder-Myers's research focuses on how human societies interact with their ecological landscapes over decades, centuries, and millennia, particularly in coastal environments. She has current research projects in the Middle Atlantic, coastal Honduras, and southern California. She works to make archaeology applicable to modern problems, including the exploration of long-term patterns in sustainability and resilience.



Brent Sewall  
Biology

Dr. Sewall's research focuses on understanding critical and emerging threats to biodiversity and developing effective strategies for conservation. He is especially interested in understanding drivers of stability in ecological communities, evaluating impacts of key threats to biodiversity, and developing practical conservation strategies for threatened species and ecosystems. Ongoing work focuses principally on clarifying drivers of the structure and dynamics of mutualistic networks in tropical forests, understanding and addressing critical and emerging threats from habitat change and emerging infectious diseases, and developing assessment and planning strategies that promote effective implementation of conservation initiatives. His work has focused on cave and forest communities in eastern North America and tropical sub-Saharan Africa. Dr. Sewall is also providing technical advice on ecology and conservation to the Pennsylvania Mammal Technical Committee, the U.S. national Conservation and Recovery Working Group of the White-Nose Syndrome Action Plan, the IUCN Species Survival Commission Bat Specialist Group, and the World Commission on Protected Areas. He has received several awards, including the American Society of Mammalogists' William T. Hornaday Award for outstanding contributions to mammal conservation, the Spurr Award for outstanding outreach in ecology, the Merton Love Award for best dissertation in ecology and evolution at the University of California, Davis, and Temple University's William Caldwell Memorial Distinguished Mentoring Award.



Sandra L. Suarez  
Political Science  
Senior Associate Dean  
for Faculty Affairs  
College of Liberal Arts

Dr. Suárez (PhD, Yale University, 1994) is Professor of Political Science. She specializes in the study of American and comparative political economy and public policy in historical perspective. Suarez' research deals with how political and economic actors shape the policymaking process and its outcomes across countries and over time. She has focused her attention principally on economic policymaking, zeroing in on critical junctures in search of patterns of behavior and interaction among the relevant formal and informal actors. She has conducted research on these topics in both developed and developing countries, employing primarily theory-driven process-tracing and case-study and small-sample methodologies. She has published work about business-government relationships, especially in the U.S., economic development policies, which involved a historical-comparative study of Ireland, Singapore and Puerto Rico, the politics of the diffusion of the Internet and mobile telecommunications, and the politics of financial regulation and executive compensation. The overarching questions that unite her work are firmly rooted in the political economy tradition: in what ways do governments choose to intervene in the economy, what are the interests of formal and informal actors, and what are the political and economic trade-offs? Suarez' work has been published in the Journal of Comparative Politics, Politics & Society, Social Forces, Studies in Comparative International Development and Telecommunications Policy. She has been awarded fellowships by the Ford Foundation, the Center for International Studies at the Woodrow Wilson School, the Institute for the Study of World Politics and the Juan March Foundation, Center for Advance Study in the Social Sciences in Madrid.



Rominder Suri  
Environmental and  
Civil Engineering

Dr. Rominder Suri is Director of the W.E.T. Center in the College of Engineering. His research involves the evaluation of emerging contaminants, water quality, and advanced oxidation processes for the pharmaceutical industry. Funding comes from many federal and state agencies, as well as private companies. His research interests include Emerging Contaminants, Advanced Oxidation Processes (Sonolysis, Ozonation, UV, Photocatalysis), Industrial Waste Treatment, Absorption/Desorption, Water Chemistry, Life Cycle Assessment and Sustainability, Reactor Engineering and Process Combination



Laura Toran  
Earth and  
Environmental Science

Dr. Toran is a hydrogeologist with research funding in urban hydrology, geochemical monitoring of karst springs, and application of geophysics to understand groundwater-surface water interaction. A theme in her research is the effects of disturbances, both natural and anthropogenic, on hydrologic systems. Her recent research interests include stormwater sampling in karst springs, using continuous monitoring to study urban hydrology, evaluating stormwater control measures, applying hydrogeophysics to understand groundwater-surface water interactions, and fracture flow modeling. Dr. Toran teaches hydrogeology and groundwater modeling, and oversees the new certificate program, which includes hazardous waste site training.



Kate Wingert-Playdon  
Tyler School of Art

Kate Wingert-Playdon is Associate Dean of the Division of Architecture and Environmental Design and Professor of the Architecture Department. She teaches undergraduate and graduate courses in architecture and preservation. Her research and design work is focused on cultural landscapes. The work addresses the overlaps of architecture, site, and settlement, focused on the underlying cultural manifestation of places and the particularity of sites. Her most recent work addresses a number of sites and includes research on the Philadelphia plan and the architecture of the American Southwest. She is author of *John Gaw Meem at Acoma: the Restoration of San Estaban del Rey Mission* (2012, Albuquerque: UNM Press). She has contributed to design and research collaborations including Route 66 Corridor Preservation Program, H'aaku Museum and Cultural Center at the Pueblo of Acoma, and Land Arts of the American West. Current research for a forthcoming book is focused on the building process and cultural life of La Fonda, a hotel in Santa Fe, New Mexico.