



Social Sustainability

FOURTH ANNUAL CONFERENCE

JUNE 8 - 10, 2016

UNC CHARLOTTE CENTER CITY CAMPUS

CHARLOTTE, NC

socialsustainabilitynetwork.org



TABLE OF CONTENTS

WELCOME	3
Conference Format	4
Objectives for this Meeting	4
Keynote Speaker: Timothy Beatley	5
Charlotte Imagining	6
Agenda	7
Digital Presentations	14
INSS Advisory Committee	16
Special Thanks	16



WELCOME

We are delighted to welcome both returning INSS members and those of you joining us for the first time. We started as a small team of academics who joined together to bring better focus to the idea of social sustainability and also to expand and analyze its many domains. Funding from the National Science Foundation allowed us to broaden our efforts and create a formal network of individuals who touch on this topic through their work in a professional, municipal, medical or business setting or because they are engaged in related research. We are now a very diverse group and hope you will continue to invite others to join us if you think that would be beneficial to them and to INSS.

Our goal for INSS is to accelerate the rate at which social sustainability is more authentically included in policy and planning. We created the network as a platform for information exchange and sharing, as well as the construction of new knowledge. In 2013, we held the inaugural INSS Conference, where founding members of the network helped us shape the network. We worked to define social sustainability and prioritize topics of high urgency and common interest.

This year's conference represents our continued effort to build and develop the network. As you will see from our agenda, it is not a typical conference experience. With input from many previous and new attendees, we've continued to have a highly interactive program around topics relevant to our members. You'll see efforts to ensure that attendees are able to engage quickly, share interests and experiences face-to-face (or at least in a virtual conference setting). Some of your time will be spent thinking about challenges and solution strategies that INSS might employ. We expect that you'll find our keynote speaker, Dr. Timothy Beatley, inspiring and thought-provoking along with the activities and panels that are aimed to put social sustainability in context in some diverse applications. We want the network to provide opportunities and tools for connecting people, projects and ideas. We hope you find this to be true during your conference experience and will commit to working with us throughout the coming year.

Sincerely,

Charlotte INSS Coordinators:
Brett Tempest
Robert Boyer
Mike Lizotte
Tara Bengle
Maura Condon



Conference Format

This year, we continue the hybrid confernce model to connect more people and reduce travel impacts. Several "nodes" are available for participants to gather and engage with us:

GEORGIA INSTITUTE OF TECHNOLOGY, ATLANTA, GA
UNIVERSITY OF NORTH CAROLINA AT CHARLOTTE, CHARLOTTE, NC
OREGON STATE UNIVERSITY CASCADES, BEND, OR
INSTITUE OF CULTURAL AFFAIRS CHICAGO, IL
UNIVERSITY OF MISSISSIPPI, OXFORD, MS
NATIONAL ACADEMY OF ENGINEERING, WASHINGTON, DC
UNIVERSITY COLLEGE LONDON, LONDON, UK

Some sessions will be for local attendees only, but many of the sessions, including the keynote session, will be shared during on-line connections times.

All sites will be exploring the theme communities and connections. Through our keynote presentation and the community sub-themes each site has elected to emphasize, we will consider the ways in which we understand, study, and support social sustainability in communities.

At the UNC Charlotte site, we will focus on the social and physical movement of people in Charlotte as illuminated by the Charlotte Mecklenburg Opportunity Task Force and our panel of bike experts and advocates. We have a rich and stimulating agenda for attendees this year, and we welcome you to join us for these sessions.

OBJECTIVES FOR THIS MEETING

- Provide opportunities for attendees to learn about each other and make connections that will advance and disseminate both INSS and individual contributions to social sustainability.
- Clarify, organize and prioritize our efforts through work groups and other initiatives that can be sustained yearlong.
- Ensure participants leave engaged in and committed to the ongoing development of the Network and Network products and understanding the communications tools available to assist the Network moving forward.



KEYNOTE SPEAKER: TIMOTHY BEATLEY



"THE PROMISE AND POTENTIAL OF THE GLOBAL BIOPHILIC CITIES MOVEMENT"

Nature provides many emotional, spiritual and health benefits to residents of cities. Biophilia argues that we have co-evolved with nature, and that we have a deep need to affiliate with the natural world. But how can that connection to nature happen in in an increasingly urbanized world? And what are the other ways that cities can co-exist with, nurture and care for nature, both local and global? Beatley will argue that we need to shift towards a vision of biophilic cities, and will review some of the important ways in

which cities can be thought to be biophilic. He will draw from the findings of his current research, especially the ongoing Biophilic Cities Project, and will describe some of things that emerging leaders and partner cities are already doing in this arena. Beatley will survey the emerging practice of biophilic urbanism, as well as discuss future needs and likely future directions. The global Biophilic Cities Network was launched in October (2013) and Beatley will describe the goals and aspirations for this new network.

Timothy Beatley is the Teresa Heinz Professor of Sustainable Communities, in the Department of Urban and Environmental Planning, School of Architecture at the University of Virginia, where he has taught for the last twenty-five years. Much of Beatley's work focuses on the subject of sustainable communities, and creative strategies by which cities and towns can fundamentally reduce their ecological footprints, while at the same time becoming more livable and equitable places. Beatley believes that sustainable and resilient cities represent our best hope for addressing today's environmental challenges. Email: tb6d@virginia.edu



CHARLOTTE IMAGINING

Part performance, part facilitated dialogue, part celebration, Imaginings bring together a diverse groups of artists, organizers, and community members to imagine what their neighborhoods might look like in the year 2034, when art's transformative power has been fully integrated into all aspects of public life. A project of the US Department of Arts and Culture (USDAC), the "Charlotte Imagining" is a collaboration between Arts & Democracy and UNCC's Charlotte Action Research Project (CHARP) and College of Arts + Architecture. Join us throughout the "Communities and Connections" conference as we engage in participatory action research, creative mapping + storytelling activities and add your ideas to the virtual conversation using the #c2CLT and @usartsdept and @artanddemocracy.



AGENDA

Wednesday, June 8, 2016

(red denotes events simulcast across all sites)

6:00 pm UNC Charlotte Center City Building

Reception (Second Floor Atrium)

Meet local community organizers fighting for justice in Charlotte. Our guests

include:

Oliver Merino, Levine Museum of the New South

Janeen Bryant, One Charlotte

Ruben Campillo, Charlotte-Mecklenburg Library

Brisa Urquieta de Hernandez, MAPPR, Carolinas Health Care System

6:30 pm Film Screening "Groundwork" (Lecture Hall, Room 201)

Bryan Mercer

Executive Director, Media Mobilizing Project

Melissa Skolnick

Groundwork Distribution Coordinator, Media Mobilizing Project

Groundwork: Justice in the Birthplace of America is a documentary series that highlights the story of how people change when we stand up for what's right. Groundwork is about everyday people and the nitty-gritty practice of building a movement and becoming a leader. Five short documentaries show the plight and the fight of five movement leaders standing up for justice in Philadelphia and around PA.



Thursday, June 9, 2016

(red denotes events simulcast across all sites)

9:00 am Registration and coffee (second floor Atrium)

10:00 am Brunch buffet (second floor Atrium)

11:00 am Formal Welcome and Site Introductions (Auditorium)

12:00 pm Keynote speaker: Dr. Timothy Beatley,

School of Architecture, University of Virginia

The Promise and Potential of the Global Biophilic Cities Movement

Nature provides many emotional, spiritual and health benefits to residents of cities. Biophilia argues that we have co-evolved with nature, and that we have a deep need to affiliate with the natural world. But how can that connection to nature happen in in an increasingly urbanized world? And what are the other ways that cities can co-exist with, nurture and care for nature, both local and global? Beatley will argue that we need to shift towards a vision of biophilic cities, and will review some of the important ways in which cities can be thought to be biophilic. He will draw from the findings of his current research, especially the ongoing Biophilic Cities Project, and will describe some of things that emerging leaders and partner cities are already doing in this arena. Beatley will survey the emerging practice of biophilic urbanism, as well as discuss future needs and likely future directions. The global Biophilic Cities Network was launched in October (2013) and Beatley will describe the goals and aspirations for this new network.

1:00 pm Break (Second Floor Atrium)

2:00 - 3:30 pm Cross-site shared activities: Session A (select one to attend in person or join online):

Washington: Transportation and the Future of Communities (Panel):

The predecessors of the Transportation Research Board at The National Academies date back to 1920. The TRB mission includes broad-based research and dissemination activities to address policy issues for transportation, and it manages over 200 committees and task forces to accomplish its mission. Sustainability has raised new challenges for systems of transportation and transportation agencies in the United States and TRB projects have begun to identify these challenges and their implications for the role of transportation in supporting a sustainable society. These panelists will draw from research and practice addressing these issues to identify dimensions that should be taken into account if goals of social sustainability are to be met.



London:

The value and ethics of assessing human well-being and security: A conversation with Des Gasper (Panel):

This panel focuses on the value and ethics of assessments of human wellbeing [development] and security. Using a presentation, discussants, and discussion, the event will highlight how these concepts are important for understanding, designing, and improving sustainability concepts and projects. This topic is crucial given the implications of using concepts like these as goals or objectives and as a basis for assessing change in the planning and implementation of projects.

Dr. Des Gasper is professor of States, Societies and World Development at the International Institute of Social Studies (ISS) of Erasmus University Rotterdam and one of the world's foremost scholars in the area of human-centered socio-economic development. His research connects human development, development ethics, and public policy in both theory and application. For this event, he will speak for 20-25 minutes about his work on human development and capability and/or human security approach and its relationship to the concept of social sustainability. After his presentation and three people from academia, civil society, and government will expand or comment on one of the ideas he presented. Then, small groups of conference participants will discuss some questions initiated by these discussions.

We hope that this panel will open new dialogues about sustainability, assessment, and the transition to sustainability for all of our conference participants.

Chicago:

The Value of Networks: a Reflection on the Chicago Sustainability Leaders Network on Opportunities, Experiences, and Recommendations for Collaborative Work

The Chicago Sustainability Leaders Network formed in October 2013 as a group of grassroots leaders from across the city of Chicago set on exploring the opportunities made possible through approaching community sustainability as a collaborative network. Over the course of nearly 3 years, the CSLN engaged over 200 members representing 174 organizations and hosted 49 events with over 800 participants. This panel will explore the new possibilities and challenges that come with being involved in a member-driven network, including:

- Share key initiatives emerging from the CSLN, in particular its role as an in-between space to connect top-down policymakers and bottom-up community organizations
- Reflect on the value of approaching sustainability as a network, and
- Identify lessons learned for others working in and organizing networks.

Bend:

Cascades Symposium: Pathways to conflict and collaboration in sustainability projects

This symposium shares three presentations on addressing the challenges of



Matt Shinderman, Ph.D., Natural Resources and Sustainability, Oregon State University – Cascades, matt.shinderman@osucascades.edu

Development of a multi-disciplinary, collaborative sustainability lab based on the three-legged stool paradigm: Formalizing research and curricular partnerships between the ecological, social and economic disciplines.

Ryan Reese, Ph.D., Counselor Education, Oregon State University – Cascades, ryan.reese@osucascades.edu

Utilization focused evaluation: Building effective researcher-stakeholder relationships in environmental and social sustainability research

Chris Wolsko, Ph.D., Psychology, Oregon State University – Cascades, chris. wolsko@osucascades.edu

Expanding the range of environmental values: Political ideology, moral foundations, and the prospects for an inclusive environmental discourse

3:30 5:00 pm

Cross-site shared activities: Session B (select one to attend in person or join online):

Atlanta:

Food-Energy-Water Nexus and Social Sustainability (Roundtable):

Food, water, and energy are three of the most fundamental resources we require. Societies are able to provide these resources with varying degrees of success, both in terms of the absolute quantities and quality available to their members, as well as the equity of access, either due to affordability or lack of distribution infrastructure.

This panel will discuss metrics for food, energy, and water systems that can capture the equity of availability and the interactions between the infrastructures that can exacerbate existing inequitable distributions or potentially lead to remediating the lack of access for all. It will highlight the role that culture plays in the organization of the provision of these resources, and how finding the right intersection between technology, culture, and economics is critical to solution emergence and adoption.

Panelists:

Baabak Ashuri, School of Building Construction, Georgia Institute of Technology Bill Bolling, Food Well Alliance, University of Texas Austin Matthew Reallf, School of Chemical and Biomolecular Engineering, Georgia Institute of Technology



Charlotte: Social and Physical Mobility in Charlotte (Auditorium):

For the past several months, the Charlotte Mecklenburg Opportunity Task Force has studied the conditions in the Charlotte region that impede upward mobility for its lowest-income citizens. The Task Force call to action follows results of a Harvard University study by Raj Chetty and Nathaniel Hendren that looked at the upward mobility for children living in large metropolitan areas. The report revealed that the Charlotte area ranked 50th out of the 50 largest US cities (and 97th in the 100 largest US cities) in economic mobility of poor children. The study estimates that a child that is born and lives out their childhood in poverty in Mecklenburg County suffers a penalty of \$X to their future income by virtue of their place of residence. Girls suffer a harsher penalty than boys.

Dr. Owen J. Furuseth is Associate Provost for Metropolitan Studies and Extended Academic Programs and is a leader of the Task Force. He is a member and former chair of the faculty of Geography & Earth Sciences and worked as a practicing planner prior to joining academia. His recent research has focused on social disparities in immigrant communities in Charlotte and land use issues at the urban-rural fringe. The synchronous session would include a synopsis of the findings of the Task Force presented by Dr. Furuseth. This will be presented with an emphasis on how transportation options might influence opportunity.

5:30 pm Light appetizers (Atrium)

6:00 pm Bicycling Charlotte (Auditorium)

This panel will discuss the state of bicycling in our region with respect to people, institutions, governments, and other social actors. Our panel of local experts will help us understand the social dimensions of bicycling issues in Charlotte. The moderated discussion will explore ways to increase the numbers and diversity of bicyclists, how we can increase the social benefits of bicycling, how bicyclists and their advocates work together, and whether there is a social imperative for bicycling that could quicken the pace of developing a bicyclist-friendly community.

Panelists:

Jordan Moore, Sustain Charlotte Pamela Murray, Charlotte Spokes People Martin Zimmerman, Green Mobility Planning Studio USA



Friday, June 10, 2016

(red denotes events simulcast across all sites)

10:00 am Coffee & light breakfast (Second Floor Atrium)

10:30 am Citizen Science and Making Air Visible (Second Floor Atrium)

This panel shares the Keeping Watching on Air project including what was learned from the citizen science work, the visuals created, and the new understanding of neighborhood concerns from air monitoring withing the gallery.

Panelists:

Brian Magi is an Aissistant Professor of Atmospheric Sciences at UNC Charlotte, his research explores the relationship between fires, climate, and air quality. Co-creator of the citizen science outreach component of Keeping Watch on Air with our UNCC STEM Education Center for Science Technology and Engineering program along with Alisa Wickliff, Brian was the voice of science for this year's exhibition. Brian is an active force in UNCC's Multidisciplinary Earth System and Atmospheric Sciences Research Group, his post doc work included National Oceanic and Atmospheric Administration (NOAA) in the Geophysical Fluid Dynamic Laboratory (GFDL) and Cooperative Institute for Climate Science at Princeton University.

Crista Cammaroto is the Director of Galleries for the College of Arts + Architecture at UNC Charlotte and co-founder of the Keeping Watch Initiative, a three year program combining art and research to inspire discourse about sustainability. She has served as an Arts Admin in Charlotte for 12 years and taughtin academia for 14 with a strong dedication to using art as a means to a healthy society.

Terry Lansdell is the Program Director for Clean Air Carolina, and on his second term for the Mecklenburg County Air Quality Commission. A triumphant steward of the Particle Falls segment of Keeping Watch and is presently serving on the Transit Services Advisory Committee for the Charlotte Area Transit System as they usher in the Light Rail Blue Line extension and has spent much of his public service career integrating bicycle accommodations throughout the transit system.

11:00 am Invisible Disasters Panel (Auditorium)

Damaging hurricanes and earthquakes are disasters that typically stimulate an immediate and unequivocal response from national governments and relief agencies worldwide. Less widespread yet acute disasters like flood, fire and catastrophic infrastructure failures are also often handled adequately by local governments. Increasingly, however, communities around the world are subject to "invisible disasters" with origins and consequences that are either diffuse or overlooked by responsible entities. Sometimes the origins of "invisible disasters" grow apparent long after the disaster has taken its toll, and sometimes handling



the consequences of such a disaster eludes traditional public authorities. Recent tragedies like contaminated water supplies in Flint, Michigan, the great invisible methane gas leak of Los Angeles, and the increasing frequency of life-

threatening heat waves challenge traditional, centralized detection systems. They may have been detected by the victims of disaster long before it was publicly recognized by responsible authorities. In such scenarios communities and community development may serve as the first and best lines of defense. This panel will explore the role of communities and local informal networks in identifying and addressing disasters that, for multiple reasons, fail to attract the attention and action of central authorities. The panel will also discuss how proactive community development, can help avert future disaster.

Panelists:

Dr. Divya Chandrasekhar - Assistant Professor, Department of City & Metropolitan Planning at the University of Utah

Dr. Sheri Davis-Faulkner – Director for Community Engagement, Ivan Allen College of Liberal Arts, Georgia Institute of Technology

Dr. Ryan Carlin - Associate Professor of Political Science at Georgia State University Ms. Sarah Kellogg - North Carolina Outreach Coordinator, Appalachian Voices

12:30 pm Cross-site conference conclusion



Presentations

Abstracts are listed alphabetically by author in the following pages

Nader Afzalan, University of Redlands (Washington DC): Online Participatory Tools as Knowledge Systems for Sustainable Planning.

Aniseh Bro, Michigan State University and Daniel C. Clay, Michigan State University (Chicago, IL): Determinants of Adoption of Sustainable Coffee Production Practices and Technologies in Nicaragua.

Kevin Caldwell, UNC Charlotte (London, UK): Rethinking Sustainability: De-Colonization, Pluralism, and Collaborative Social Sustainability.

Fernanda Garcia Alba Garciadigeo and Liliana Orgeta Garza, University College London (London, UK): Water-Walk. Is a Workshop the right approach to improve people's consciousness about their everyday choices?

Jonathon Hankins, University of Bergamo, Italy. Bassetti Foundation PhD Fellow (London, UK): SPIRIT- saving energy via faith communities across Europe.

Spencer Harbo, University of Michigan (Washington DC): Community-Based Resource Sharing: Motivations and Barriers.

Rayman Mohamed, Robin Boyle, Pablo Golob, Wayne State University, and Allan Yang, U-Haul International (Chicago, IL): The Challenges of Achieving Social Sustainability: the 3 Pillars of Sustainability and a Case Study of Adaptive Reuse.

Nicole Peterson, UNC Charlotte, Des Gasper, International Institute of Social Studies (ISS) of Erasmus University Rotterdam (speaker), Michael Drinkwater, WayFair Associates (co-organizer)" (Washington DC): The value and ethics of assessing human wellbeing and security: A conversation with Des Gasper.

Rebekah Phillips (London, UK): SPIRIT- saving energy via faith communities across Europe.

Sandra Santa-Cruz, Victor Arana, and Juan Palomino, Pontificia Universidad Catolica del Peru (Charlotte, NC): Prioritization methodology for seismic risk reduction in public schools. Study case: Lima, Peru.

Upendra Sapkota, University of Maryland College Park (Washington DC): Role of Social Capital and Social Learning in Building Disaster Resilient Community- A Case of Post-Earthquake Recovery and Rebuilding Process in Nepal.



Malena Serrano Lazo, Pontificia Universidad Catolica del Peru (Charlotte, NC): Sustainable Solutions to Mitigate Seismic Risk in the Peruvian Andes: Empirical Evidence from Training Rural Dwellers in Earthquake-Resistant Construction with Adobe.

Matt Shinderman, OSU Cascades (Bend, OR): Development of a multi-disciplinary, collaborative sustainability lab based on the three-legged stool paradigm: formalizing research and curricular partnerships between the ecological, social and economic disciplines.

Carissa Schively Slotterback, University of Minnesota (Chicago, IL): Conceptualizing Social Sustainability at the Community Scale.

Richard Wilson, Loyola University Philosphy/University of Maryland (Washington DC): Hydraulic Fracturing, Hydroshearing and Social Sustainability.

Please see socialsustainabilitynetwork.org for abstracts.

SPECIAL THANKS

Crista Cammaroto, Director of Galleries, College of Arts + Architecture, UNC Charlotte

Dodie Hart, UNC Charlotte Anthropology

UNC Charlotte College of Liberal Arts and Sciences

UNC Charlotte College of Engineering

UNC Charlotte College of Arts + Architecture

Kim Wilson, UNC Charlotte Department of Civel and Environmental Engineering

Sustain Charlotte

Aaron Forsyth

Laura Ornstein

Jeremy Evivie

Amelia Coleman

Alaina Taylor

INSS Advisory Committee

Adjo Amekudzi

Sarah Bell

Christiane M. Bongartz

Robert Boyer

Henry Doss

Craig Farkos

Paul Fragua

Kent Glenzer

Rick Johnson

Heidi Pruess

Charles Redman

Charles nearman

Londa Schiebinger

Gary Silverman



The Infrastructure, Design, Environment & Sustainability Center
College of Liberal Arts and Sciences
The William States Lee College of Engineering
College of Arts + Architecture

The advisory committee is a diverse group intended to help guide the INSS through feedback and advice.

This material is based upon work supported by the National Science Foundation under Grant Number 1231382.

Any opinions, findings, and conclusions or recommendations expressed in this material are those of the author(s) and do not necessarily reflect the views of the National Science Foundation.