

SCIENCE, EMPATHY, COLLABORATION, & SUSTAINABILITY



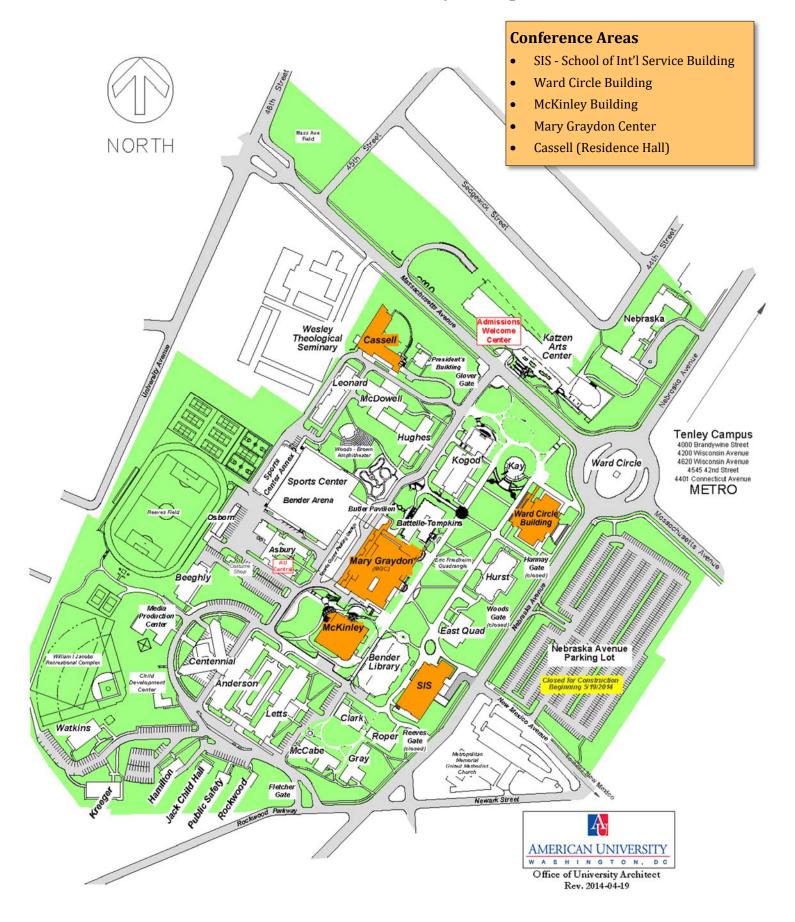




American University Main Campus

4400 Massachusetts Avenue NW, Washington, DC 20016

www.american.edu/aumaps



Conference at a Glance

Wednesday, June 8		
8:00am - 6:00pm	Registration	School of International Service Building (SIS)
8:00am – 9:30am	Coffee and Pastries	Founders Room Lobby SIS Founders Room Lobby
9:00am - 4:00pm	All Day Workshops	SIS Building
9:00am – 12:00pm	Morning Workshops	Ward Circle Building
12:00pm – 1:00pm	Lunch	SIS Founders Room
1:00pm - 4:00pm	Afternoon Workshops	Ward Circle Building
4:15pm – 6:15pm	Opening Reception	SIS Founders Room and Lobby
6:30pm – 8:30pm	Welcome and Opening Keynote	Ward Circle Building, Room 1
Thursday, June 9	oronic and opening negroes	
8:00am – 5:30pm	Registration	SIS Founders Room Lobby
8:00am – 8:30am	Coffee and Pastries	SIS Founders Room Lobby
8:30am – 5:00pm	Exhibit Hall Open	SIS Founders Room
8:30am – 10:00am	Plenary Session	Ward Circle Building, Room 1
10:00am - 10:30am	Coffee Break	SIS Founders Room Lobby
10:30am - 12:00pm	Session A	Ward Circle Building and SIS Building
12:15pm – 2:00pm	Poster Session 1	SIS Atrium
12:15pm – 1:45pm	Lunch	SIS Founders Room Lobby
12:30pm – 1:45pm	Lunch Roundtable Discussions	SIS Rooms 102 and 120
12:30pm – 1:45pm	JESS Editorial Board Meeting	SIS Building, Room 355
2:00pm – 3:30pm	Session B	Ward Circle Building and SIS Building
2:15pm – 4:30pm	Poster Session 2	SIS Atrium
3:30pm – 4:00pm	Coffee Break	SIS Founders Room Lobby
4:00pm – 5:30pm	Session C	Ward Circle Building and SIS Building
5:15pm – 6:15pm	Reception	SIS Founders Room Lobby
6:00pm – 7:20pm	AESS Member Meeting	Ward Circle Building, Room 1
7:30pm – 9:30pm	Film Night	McKinley Building (2nd Fl.), Doyle/Forman Theater
Friday, June 10		
8:00am - 11:30am	Registration	SIS Founders Room Lobby
8:00am – 9:00am	Coffee and Pastries	SIS Founders Room Lobby
8:00am - 12:30pm	Exhibitor Hall Open	SIS Founders Room
9:00am - 11:30am	Poster Session 3	SIS Atrium
9:00am - 10:30am	Session D	Ward Circle Building and SIS Building
10:30am - 10:45am	Snack Break	SIS Founders Room Lobby
10:45am - 12:15pm	Session E	Ward Circle Building and SIS Building
12:20pm	Field Trips	Meet in SIS Atrium (under sign for your trip)
12:30pm	Lunch	Off-Campus / On Your Own (unless otherwise communicated to trip participants)
5:30pm - 8:00pm	Reception and Awards Ceremony	Smithsonian National Zoo, Elephant House Courtyard
Saturday, June 11		
8:30am - 9:30am	Coffee and Pastries	SIS Founders Room Lobby
9:00am - 10:30am	Session F	Ward Circle Building and SIS Building
10:30am - 11:00am	Snack Break	SIS Founders Room Lobby
11:00am - 12:30pm	Session G	Ward Circle Building and SIS Building
12:30pm – 2:30pm	Lunch, Student and Presidential Recognition Awards, Closing Keynote	Mary Graydon Center, Rooms 2-5
2:30pm	Adjourn	



Mission

The Association for Environmental Studies and Science (AESS) is an independent faculty-and-student-based professional association in higher education, designed to serve the needs of environmental scholars and scientists who value interdisciplinary approaches to research, teaching, and problem solving.

Founded in 2008, the Association seeks to provide its members with the latest environmental information and tools to create better courses, strengthen research, develop more satisfying careers, harness the power of a collective voice for the profession, and enjoy each other's company at national and regional meetings.

A major aim of AESS is to encourage interdisciplinary understanding of environmental science, policy, management, ethics, history, and all of the other vital contributions of traditional disciplines. From its beginning, the Association has been envisioned as a community of environmental scholars and scientists, not a confederation of disciplines. Fundamental to its members' embrace of higher education is the notion that broad advances in knowledge environmental require disciplinary, interdisciplinary, and transdisciplinary approaches to research and learning.

Association for Environmental Studies and Sciences 1101 17th Street, NW Suite #250, Washington, DC 20036 Phone: 202-530-5810, Fax: 202-628-4311

E-mail: support@aessonline.org

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Welcome

President



I am absolutely delighted to welcome each of you to the 2016 Annual Conference at American University, *Science, Empathy, Collaboration, and Sustainability*. Many of the panels you hear will focus on the implications of this theme. Yes, grappling with and exploring the science continues to be important, but so is exploring how the combination of science, empathy and collaboration is absolutely critical to anything approaching long-term sustainability. Such topics will continue to pose difficult challenges and intriguing opportunities for our discipline in the years ahead.

There is little question that we have a provocative and engaging conference in store for all of us. It showcases the talents of our diverse field, encompassing the humanities and social and natural sciences. And what the heck, even an economist or two. The program includes two keynote addresses and a plenary talk that should be of real interest. The opening keynote by **Jeremy Rifkin** should help us frame the sustainable development perspective. Plenary speaker **Patricia Beneke** will help us understand the UNEP Sustainable Development Goals. Our closing keynote **James Loewen** will help explore how misperceived ideas may constrain meaningful steps toward

a more sustainable future. Additionally, we offer panels and roundtable sessions, workshops, and field trips, an expanded version of our "film night," along with awards, evening events, and lots of opportunities for informal conversation, networking, and hopefully yes, many further collaborations.

There are numerous people who deserve our heartfelt thanks for their terrific work to make this conference a success. Initially I want to thank a team of talented individuals on the AESS **Program Committee**, who were guided by our outstanding Program Chair, **Jim McMahon**, who agreed to take on this yeoman task—perhaps because he did not fully appreciate what it really takes to successfully launch such an event. The Program Committee had both the enviable, and daunting, task of reviewing, for the second year in a row, the most proposals in the history of the conference. Also, special thanks are due to **Heather Heckel**, who despite her very busy schedule as an Assistant Professor at AU, found time to do a remarkable job as the site coordinator, tackling all of the moving parts including both the large number of people involved as well as the huge detail of the many elements of conference logistics.

Many thanks also to **Beth Karlin** and the Awards Committee for organizing the processes for selection of this year's recipient of the Freudenburg Lifetime Achievement, Professor Dale Jamieson, and for selection of this year's recipient of the award for the most outstanding student paper delivered at the conference. Carolyn Anthon, AESS Program Coordinator at the National Council for Science and the Environment, and the University of Vermont Conference and Event Services who worked tirelessly behind the scenes to ensure smooth operation of the technical aspects of the conference. I also want to recognize Michelle Wyman and Chris Avery with the National Council for Science and the Environment for their continued support of AESS, as well the AESS Board of Directors for assistance with strategic planning and fundraising efforts associated with the conference. Special recognition in this context is accorded to David Hassenzahl, AESS's President-Elect, who covered for me at times when the bandwidth was limited, and for his listening and giving me useful feedback as we closed on the development of this year's conference. There are a number of major financial sponsors whose generous support helped make this year's conference program possible, including a number of first time private sector contributors including Platinum sponsors Verizon, Joi Scientific, and Johns Hopkins University AAP. You will find their names and many others listed throughout the program. Also, thank you to American University for serving as our host for this year's conference, with special recognition to **Professor Simon Nicholson**, Director of the Global Environmental Politics Program, School of International Service at American University. Finally, I extend my great appreciation to Donna Kowal who took all this information and transformed it into this useful program guide.

Yes, AESS has an important role to play in helping to ensure that environmental studies and sciences programs flourish in the United States and globally in a time of immediate and unprecedented environmental challenge. These programs, in turn, occupy a critical place in the academy, helping to educate students who will ultimately become policymakers and involved citizens. They also help to engender an ethic of compassion and respect for both human and non-human beings, and help learners to develop interdisciplinary perspectives that will stand them in good stead whatever career path they pursue.

It has been my distinct honor to serve as AESS's President over this past year. I want to encourage everyone to stay engaged in our organization's work, recruit colleagues and students for AESS, and submit your best work to our journal. Consider serving on an AESS committee or our board. On behalf of the AESS Board of Directors, welcome and enjoy the conference!

John A. "Skip" Laitner

President, AESS

Energy and Resource Economist Economic and Human Dimensions Research Associates

Program Chair



Iim McMahon AESS 2016 Program Chair

Founder and Director **Better Climate** Research and Policy Analysis San Francisco Bay Area, California Affiliate, University of California Berkeley and Lawrence Berkeley National Laboratory

Welcome to American University and to Washington, DC! Your site team of active students, faculty, and alumni are pleased to welcome you. It is an honor and pleasure to host the AESS 2016 Conference. We look forward to providing an environment in which our diverse conference delegation can breach the boundaries between disciplines and of their affiliated institutions. mutually learn from each other, unite their interdisciplinary strengths, and collaborate on ever better approaches to sustainability. Washington, DC provides an ideal environment to delve into the discussion of acknowledging our differences, confronting diversity, and learning how to collaborate for the common good.

With over 100 sessions, the 2016 AESS conference brings depth and focus to our interdisciplinary approaches to the human/environment interface. This year's theme, "Science, Empathy, Collaboration and Sustainability," plays out in sessions on merging academic studies with community action, understanding diverse physical and human systems (land use, water and ocean systems, resources, climate), communicating among different interests, and negotiating regional and global environmental policies.

You will find a broad array of perspectives and ideas as presenters from different backgrounds and locations offer approaches to research, teaching, and collaboration. You will see increasing examples of empathy and joint activity at multiple scales from local to global, including in the areas of arts and sciences, livable spaces and cities, food systems, traditional and alternative energy, and implications of policies on developing and developed communities.

Your program committee this year includes Mary B. Collins, Ira Feldman, Song Gao, Curt Gervich, Kristen Goodrich, Aileen Guzman, Devin Judge-Lord, Sean McDonald, Kathy O'Neill, Mercedes Quesada-Embid, Diana Watts, and Antoinette WinklerPrins, with assistance from Carolyn Anthon. On behalf of the Program Committee, we welcome you—newcomers and longtimers—and invite you to join in, meet your colleagues, and help AESS keep its reputation for warmth and friendliness. And pace yourself—there's so much on every day, and the final day of presentations is as remarkable as the

Site Coordinator



Heather Heckel AESS 2016 Conference Site Coordinator

Assistant Professor School of Professional & Extended Studies American University

Welcome to American University! Our faculty and staff are excited to be the host site for the 2016 AESS conference, where sustainability, collaboration, environmental studies, and active student engagement are prioritized. The AU campus community includes approximately 13,000 students and 900 full-time faculty. We are proud to be a registered arboretum and leader in campus sustainability, ranked second in the Sierra Club's Greenest American Colleges list. Like AESS, AU emphasizes international understanding, interactive teaching, experiential learning, and applied research. We look forward to introducing you to our campus community and the Washington, DC area.

Acknowledgements

The AESS 2016 conference was made possible by the hard work of many staff and volunteers.

Special thanks to:

John "Skip" Laitner, AESS President, Economic and Human Dimensions Research Associates

Heather Heckel, American University, Site Coordinator

Carolyn Anthon, AESS Program Coordinator

David Hassenzahl, Skip Laitner, Tony Rosenbaum, and Kim Smith for their financial contributions.

AESS Program Committee Members:

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Mary B. Collins, Assistant Professor, Environmental Studies, SUNY College of Environmental Science and Forestry

Ira Feldman, President and Senior Counsel, Greentrack Strategies **Song Gao,** Associate Professor, Department of Chemistry and Physics, Nova Southeastern University

Curt Gervich, Assistant Professor of Environmental Science, State University of New York, Plattsburgh

Kristen Goodrich, School of Social Ecology, University of California, Irvine

Aileen Guzman, Assistant Professor, Department of Environmental Science, Ateneo de Manila University

Devin Judge-Lord, Doctoral student, Political Science, University of Wisconsin-Madison

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Mercedes Quesada-Embid Associate Professor, Sustainability Studies, Colorado Mountain College

Diana Watts, Associate Professor, Business Administration, Trinity Washington University

Antoinette WinklerPrins, Director for Environmental Programs, Advanced Academic Programs, Johns Hopkins University

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Diana Watts, Associate Professor, Business Administration, Trinity Washington University

Antoinette WinklerPrins, Director for Environmental Programs, Advanced Academic Programs, Johns Hopkins University

Michelle Wyman, Executive Director, National Council for Science and the Environment

National Council for Science and the Environment (NCSE) Staff, especially: Carolyn Anthon, AESS Program

Coordinator; Michelle Wyman, Executive Director; David Blockstein, CEREL Executive Secretary; and Chris W. Avery, Senior Advisor

American University Site Team:

We would like to thank the following for their generous assistance:

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The American University Office of Sustainability team – **Megan Zanella-Litke**, **Hannah Debelius**, **Amitava Paul** and **student assistants** www.american.edu/finance/sustainability

Simon Nicholson and Global Environmental Politics staff - www.american/sis/gep

Washington Semester Program alumni – Lauren Kruglinski, Hannah Malus, and Kaila Cantens

Sam Sheline, you can find his environmental films at: vimeo.com/samsheline

The School of International Service - www.american.edu/sis

The School of Professional and Extended Studies -

www.american.edu/spexs

American University Housing and Dining – **Kim Araya** and **Ashley Ellington**

American University Avenues Catering and Rebecca Hill

American University Audio/Visual Services

American University Public Safety

Project Create – for the wonderful youth environmental art! projectcreatedc.org

Fresh Start Catering - dccentralkitchen.org/freshstart

Smithsonian Zoo events team and Amy Gaus - nationalzoo.si.edu, including La Prima Catering - www.laprimacatering.com

Economic and Human Dimensions Research

Associates, especially: Diane Taylor, Executive Assistant, and **Meagan Adolfson**, Research Associate

All conference volunteers.

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Russian Presidential Academy of National Economy and Public Administration (RANEPA)

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The New School

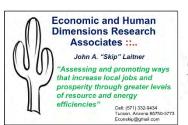
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Green Statement

American University was recently ranked second in the Sierra Club's annual ranking of America's greenest colleges and strives to model sustainable practices across our campus. AU has pledged to be carbon neutral by 2020 and has implemented a zero waste management plan. Our main campus is an arboretum featuring green roofs, solar panels, urban gardens, an apiary, biofuel transportation, and several new LEED buildings.

The AESS conference at American University seeks to role model sustainable events by minimizing consumption and supporting green and local businesses. At this conference we are pleased to be working with the world famous Smithsonian Zoo, known for its conservation research and motto, "We Save Species." Our caterers include: La Prima Catering, a green certified restaurant. Additionally, we are working with Fresh Start, a caterer of DC Central Kitchen, an organization nationally known for its work with people who have previously experienced homelessness or incarceration.

Contacts

Emergency: On campus and not life threatening call AU Public Safety - 202-885-3636.

In any potentially life threatening emergency please call 911 and AU Public Safety.

AU Housing: Questions not answered below, speak with front desk staff at Cassell Dormitory

AU Site Coord: Heather Heckel, aess2016au@gmail.com

for questions about campus or for on-site needs such as exhibit hall and meals.

Program Chair: Jim McMahon, conference@aessonline.org

for questions about the program and presentations.

AESS President: John "Skip" Laitner, aesspresident1@gmail.com

for questions about the conference, AESS, and keynote speakers.

AESS Membership: support@aessonline.org to join AESS or to share suggestions for future conferences.

Registration/Refunds: University of Vermont Conference and Event Services, ConferenceRegistration@uvm.edu,

for registration information.

FAQs

How do I get to the University?

• Washington DC has bus and metro service. To plan your trip to American University's campus at 4400 Massachusetts Avenue, Washington, DC 20016, go to:

www.wmata.com/rider_tools/tripplanner/tripplanner_form_solo.cfm. If you take the metro to Tenleytown station there are American University shuttles running approximately every 15 minutes to campus. More information on AU shuttles can be found at: www.american.edu/finance/facilities/shuttle.cfm. For suggestions regarding travel from the regional airports see: www.american.edu/ocl/isss/Transportation-Ground.cfm.

If driving to campus, where do I park and how much does it cost?

• Guest parking is available in the basement of the School of International Service (SIS) Building and the basement of the Katzen Arts Center. Parking passes are required from 8am to 6pm Monday through Friday. Visitors pay for parking by the hour (\$2) or by the day (\$16) at machines located in the lots. You can pay in cash or by credit card. Please note that you cannot park in the neighborhood near American University. AU has an agreement with neighbors to prevent local parking that disrupts the community. There is a minimum \$200 fine for parking near campus when visiting AU. More information at: www.american.edu/finance/publicsafety/parking.

I got a **parking ticket**, can you help?

 We are unable to assist with parking tickets. You can take your ticket to the Parking Office located in the Lower Level of Letts Hall, Suite One during business hours for assistance with your questions. Please note that visitors to AU cannot park on local streets (see above).

Where do I check-in?

Check-in for the conference will be in the lobby of the Founders Room of the School of International Service (SIS). After
entering the building proceed straight ahead and go down the stairs. Our table will be at the bottom of the stairs.

Where can I **print** or make **copies**?

The American University library, located to the right of the School of International Service building, has printing and copying services available in its basement. To make copies, stop at the first floor of the library at the main entrance desk. They have copy/print cards for AESS conference participants. You will be asked to sign for the card and then to return it to the same desk after you are done.

Are there **computers** I can use?

The American University library, located to the right of the School of International Service building, has computers that can be used in the library. Please go to the first floor main desk for assistance. For projection of your presentations please contact your event Chair.

Will I have Wifi?

Yes. AU has guest access for visitors and dorms have Wifi access. Additional instructions on how to log-in will be provided at registration. Please note that you should not rely on Wifi for your presentation as connectivity can be interrupted.

Where is the nearest **ATM**?

An ATM is available on the first floor of the Mary Graydon Center.

Are there **restaurants or grocery stores nearby**?

You can find many restaurants, a CVS, and a Whole Foods in Tenleytown. Shuttle buses go from the campus, behind the Kogod Business School to this area, approximately every 15 minutes. You can also walk approximately ½ mile down New Mexico Avenue (across from the SIS building) for a few restaurants, a Starbucks, and a drug store.

Housing (Any additional questions should be directed to the front desk of Cassell Hall at check-in.)

- Check-in 3:00pm or later, at the front desk of Cassell Hall. Check-out before 11:30am
- Contents of room A blanket, pillow, pillowcase, sheets, and bath towel are provided. There are no desk lamps or phones in the room and it is not possible to request extra linens.
- Air-conditioning all dorm rooms are air-conditioned.
- Room design most rooms have 2 single beds. There will be a shared living room and bathroom in each suite of approximately four rooms.
- Parking parking is not included in the dorm room cost. You will need to purchase parking at the guest parking lots (see above) during your stay.
- Workout There is a small workout room in Cassell Hall. Those wishing to use the larger gym and swim facilities on campus can purchase a pass at check-in.
- Note: significant additional fees are charged for lost keys, room damage, or major cleaning. AESS will bill renters for any of these fees.

Meals during the conference

Meals are provided as indicated on the conference schedule. There will be vegetarian and vegan options at all meals. We apologize but we cannot accommodate other meal requests.

Water bottles

In keeping with our green approach, we encourage participants to bring refillable water bottles. There are water refill stations throughout campus.

How can I **promote my organization's participation** at the conference on **Social Media**?

- Like our Facebook page at: www.facebook.com/AESSonline
- Post on your own social media and website, include a link to our conference: www.aessonline.org/2016-conference
- Tag us on Twitter: @AESSnews, Instagram: AESSmedia, and include #AESS2016.
- After the conference, look for our Flickr conference picture group at AESSmedia for post-conference pictures.

How do I get to the zoo?

The zoo is accessible by metro from the Woodley Park red line stop and then a 0.5 mile walk. There are also several bus lines that stop at the zoo. You can plan your metro trip at: www.wmata.com/rider_tools/tripplanner/tripplanner_form_solo.cfm. You can also park at the zoo in lots A or B, after 5pm (charges may apply if you leave before 7pm). More information is available at: www.nationalzoo.si.edu/Visit. Please note that most indoor animal exhibits close at 4:30pm. At the AESS event, which begins at 5:30pm, we expect you will be able to see some outdoor animals and elephants. Our event will begin outside the LEED gold certified Elephant Community Center (main elephant house) www.nationalzoo.si.edu/Animals/AsianElephants/LEED.cfm. The Center is located on Olmsted Walk about 0.25 miles from the zoo entrance or about 50 yards beyond the panda area. It is next to parking lot B.

What's in Store

People often come to conferences as much for meeting other people and networking as for formal sessions. AESS has earned a reputation over the years as a friendly and warm gathering, and we are grateful to all for continuing this tradition. We extend our welcome to those who are here for the first time and to those who are returning; to those from close by and to those from as far away as Australia, Bangladesh, Belgium, Canada, India, Japan, The Philippines, Russia, Spain, and United Kingdom.

AESS is a great place to meet new people, find old friends, talk over job opportunities and your latest book, and to have an in-person interaction with someone you have connected to virtually.

Workshops (Wednesday only)

Workshops are interactive (as opposed to lecture-based) and have a formal educational or professional development component. Content may include presentations, discussions, exercises, formal training, or other methods of promoting heuristic goals. Workshops are expected to have clear goals and outcomes.

AESS Member Meeting (Thursday, 6:00pm)

AESS members are invited to a Business Meeting to discuss current and future directions of the organization. Please come, listen, and share your ideas.

Discussion Symposia

Discussion symposia are designed for focused discussion on a selected topic. Playing off the original ancient Greek symposia, the emphasis is on in-depth intellectual exchange. Opening remarks are appropriate but it is not expected that participants will deliver a formal presentation.

Exhibitors (Thursday and Friday)

Exhibitors include publishers, universities, organizations, and others. They bring a wealth of information, book samples, and much more. Take the time to visit them all! This is a great opportunity to speak personally with, say, a publisher about your upcoming book project, or with a graduate school about their admissions criteria, or about the projects and approaches (and job opportunities?) of non-profits.

Mealtime Roundtables (Thursday, 12:30pm)

Mealtime roundtables are designed to foster open discussion around a topic of general and collective interest to the AESS community. Anyone can join a roundtable. They are led by the coordinator listed in the program book.

Poster Sessions (Thursday and Friday)

Poster presenters will be on hand during three Poster Sessions to converse informally about their work.

Presentation Panels

Presentation panels are designed for presentation of research or other scholarly AESS-related endeavors. In general, they consist of up to five presenters who are each allotted approximately 15 minutes to speak, followed by questions and answers or discussion.

Sessions

Sessions are a collection of 4-5 individual presentation papers unless otherwise indicated. If there is a session you particularly want to hear, we urge you to arrive early to get a seat as some classrooms have limited capacity.

The Arts at AESS and Film Night

Arts abound at AESS conferences. See details inside the program about the conference photographer, student art on display, and an evening of short films and discussion.

And awards, banquet, keynotes, field trips, and much more.

Workshops Overview (Wednesday)

Wednesday All Day Workshops 9:00am - 12:00pm & 1:00 - 4:00pm

W-1 Building Multi-Organizational Collaborations: Design and Practice

SIS Building, Room 120

W-2 Environmental Risk Assessment, Communication, and Prevention: Short Course!

SIS Building, Room 113

W-3 Facilitating Socio-Environmental Synthesis: Employing Model-Based Reasoning in **Interdisciplinary Collaboration**

SIS Building, Room 233

W-4 Promoting More Authentic Collaboration in Inter- and Transdisciplinary Research SIS Building, Room 102

Wednesday Morning Workshops 9:00am - 12:00pm	Wednesday Afternoon Workshops 1:00pm - 4:00pm
W-5 Charting our Food System: Industrialized Agriculture, Damaged Frontline Communities, and the Effects of our Complicity Ward Circle Building, Room 103	W-13 Designing Collaborative Mobile Apps for Sustainability Ward Circle Building, Room 101
W-6 Developing Educational Games for Environmental Studies and Science Ward Circle Building, Room 102	W-14 Energy Education for Undergraduates Ward Circle Building, Room 105
W-7 Getting Published: Preparing Manuscripts for Journal Submission Ward Circle Building, Room 105	W-15 Health, Environmental Protection, and Sustainability: Beyond the Obvious Ward Circle Building, Room 107
W-8 Sustainable Living & Team Work Ward Circle Building, Room 106	W-16 Principles of Economic Assessments in Evaluating Environmental Policies and Programs Ward Circle Building, Room 102
W-9 Teaching Political Ecology: A Workshop on Incorporating the Field of Political Ecology into the Classroom Ward Circle Building, Room 104	W-17 The Art of Engagement: Invigorating Course Assignments with the Arts Ward Circle Building, Room 104
W-10 The Art of Hosting: Interdisciplinary and Collaborative Conversations Ward Circle Building, Room 113	W-18 Translating Research to Inform Policy: How to Participate Effectively in the Policy Process Ward Circle Building, Room 103
W-11 Using National Surveys on Energy and Environment (NSEE) Data in your Classroom Ward Circle Building, Room 101	
W-12 Using Real-Time Campus Data to Explore Relationships Between Policy, Management and Behavior: Introduction to Teaching with Building Dashboard and BuildingOS	

Lunch Roundtables (Thursday)

Thursday Lunch Roundtables 12:30pm - 1:45pm

R-1 Creating Successful Community Based Environmental Projects

SIS Building, Room 102

Ward Circle Building, Room 107

R-2 Discussion of Interdisciplinary Course-based Undergraduate Research Experiences (CUREs)

SIS Building, Room 120

Sessions Overview (Thursday - A, B, C)

Section (That stay 11, 2) c)				
Session A 10:30am - 12:00pm	Session B 2:00pm - 3:30pm	Session C 4:00pm - 5:30pm		
A-1 Climate Change and Society: Sociological Perspectives Ward Circle Building, Room 101	B-1 Climate Change, Uncertainty and Managing Investment Strategies for Adaptation and Mitigation Ward Circle Building, Room 101	C-1 Divestment: Useful Strategy or Distraction? Ward Circle Building, Room 101		
A-2 Different Approaches to Integrating Sustainability Across the Curriculum Ward Circle Building, Room 102	B-2 Sustainability Production and Practice for Higher Education (Discussion Symposium) Ward Circle Building, Room 102	C-2 AESS and the North American Association for Environmental Education (NAAEE) (Discussion Symposium) Ward Circle Building, Room 102		
A-3 Obama's Environmental Legacy (Discussion Symposium) Ward Circle Building, Room 103	B-3 Working Inside the Beltway: The Practice of Environmental Politics (Discussion Symposium) Ward Circle Building, Room 103	C-3 Global Environmental Politics Ward Circle Building, Room 103		
A-4 Alternative Energy Technologies & Implementation - 1 Ward Circle Building, Room 104	B-4 Alternative Energy Technologies & Implementation - 2 Ward Circle Building, Room 101	C-4 Qualitative Research as a Tool for Examining Sustainability Challenges Ward Circle Building, Room 104		
A-5 Green Infrastructure, Stormwater, and Water Resource Management - Part 1 Ward Circle Building, Room 105	B-5 Green Infrastructure, Stormwater, and Water Resource Management - Part 2 Ward Circle Building, Room 105	C-5 Green Infrastructure, Stormwater, and Water Resource Management - Part 3 Ward Circle Building, Room 105		
A-6 Resources from the InTeGrate Project for Interdisciplinary Teaching about Earth for a Sustainable Future Ward Circle Building, Room 106	B-6 Interdisciplinary Approaches to Environmental Challenges: What Role for Qualitative Methods? (Discussion Symposium) Ward Circle Building, Room 106	C-6 Communication and Collaboration Ward Circle Building, Room 106		
A-7 The Political Economy of Carbon Pricing Ward Circle Building, Room 107	B-7 The Next Generation of Trade? Promoting the Environment through Trade Agreements Ward Circle Building, Room 113	C-7 Environmental Trends and Foresight Planning Ward Circle Building, Room 107		
A-8 Climate Change Across the Curriculum: Engaging Academic Disciplines in Climate Change Education (Discussion Symposium) Ward Circle Building, Room 113	B-8 Changing Lightbulbs is Not Enough: Fostering Civic Engagement on Climate Change in Higher Education (Discussion Symposium) Ward Circle Building, Room 114	C-8 Coordinated Climate Education: Leveraging National Models (Discussion Symposium) Ward Circle Building, Room 113		
A-9 Overcoming Corporate Threats to Academic and Community Environmental Health Research on Industrial Animal Production (Discussion Symposium) Ward Circle Building, Room 114	B-9 Developing Integrated Urban Resiliency: The Nexus between Water, Food, Energy and Public Health (Discussion Symposium) SIS Building, Room 102	C-9 Appraising Research on Religion and Climate Change (Discussion Symposium) SIS Building, Room 102		
A-10 Space, Land, and Commons SIS Building, Room 102	B-10 Environmental Dashboard: Using Displays of Resource Use and Community Voices on Multiple Campuses to Foster Connections and Empower Stewardship SIS Building, Room 120	C-10 Integrating Social Sciences and Informing Decisions with Carbon Cycle Science: A Retrospective Technical Assessment (Discussion Symposium) SIS Building, Room 120		
A-11 Can Shale Gas Help Accelerate the Transition to Sustainability? SIS Building, Room 120	B-11 Food Systems SIS Building, Room 113	C-11 Fossil Fuels and Publics: Perception, Participation, and Policy SIS Building, Room 113		
A-12 Forest Health, Communities, and Environmental Learning SIS Building, Room 233	B-12 Humanities and Adaptation SIS Building, Room 233	C-12 Science, Empathy, Collaboration and Sustainability: Case Studies from the Philippines SIS Building, Room 233		
A-13 Art, Science, and Behavior SIS Building, Room 333	B-13 Creative Collaborations: Investigations in Art, Science & Teaching SIS Building, Room 333	C-13 On the Ground, Under the Ground?Farms and Mines SIS Building, Room 333		

Session D 9:00am – 10:30am	Session E 10:45am - 12:15pm
D-1 Valuing Health and Climate Trade-offs: Understanding Perceived and Modeled Trade- offs in the Power Sector Ward Circle Building, Room 101	E-1 A New Approach to Science, Technology, Engineering, and Mathematics Outreach in Climate Change, Energy, and Environmental Decision Making Ward Circle Building, Room 101
D-2 Transcending Disciplinary Approaches to Education for Sustainable Human and Environmental Systems Ward Circle Building, Room 102	E-2 Teaching about Animals in Environmental Studies: Collaboration across Disciplines, Empathy across Species Ward Circle Building, Room 102
D-3 Climate Change Ward Circle Building, Room 103	E-3 Earth and Urban Systems Ward Circle Building, Room 103 E-4 COP21 in the Classroom: Applying data from
D-4 Interdisciplinary Careers Ward Circle Building, Room 104	a "Virtual" field trip to student research Ward Circle Building, Room 104
D-5 [No Session]	E-5 Security, Peacebuilding, and Environmental Change Ward Circle Building, Room 105
D-6 Integrating Campus Sustainability in Operations, Education, and Research: What works (and what hasn't yet) Ward Circle Building, Room 106	E-6 Explorations in Ecomusicology Ward Circle Building, Room 106
D-7 EPA's P3 Program Wants to Hear from YOU! (Discussion Symposium) <i>Ward Circle Building, Room 107</i>	E-7 Perceptions of Climate Ward Circle Building, Room 107
D-8 Art and Science Collaborations at Biological Field Stations Ward Circle Building, Room 113	E-8 Regional Solutions Ward Circle Building, Room 113
D-9 Coasts and Watersheds SIS Building, Room 102	E-9 Business & Sustainability: Advancing Environmental Action Through Collaborative Business Partnerships SIS Building, Room 102
D-10 Using Virtual Reality Content to Generate Empathy for Climate Suffering (Discussion Symposium) SIS Building, Room 120	E-10 [No Session]
D-11 Environmental Implications of the Impending Energy Revolution (Discussion Symposium) SIS Building, Room 113	E-11 Electric Localism: Policy Reform and the Evolution of Community-Scale Sustainable Energy SIS Building, Room 113
D-12 Innovations for Sustainability <i>SIS Building, Room 233</i>	E-12 Forests, Farms and Conservation Areas SIS Building, Room 233
D-13 Water Systems SIS Building, Room 333	E-13 Sustainability Discourse SIS Building, Room 333

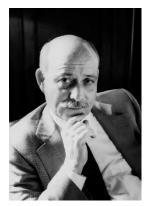
Sessions Overview (Saturday - F, G)

Session F 9:00am – 10:30am	Session G 11:00am - 12:30pm	
F-1 Building Empathy and Using Collaboration to Engage Non-majors in Learning Environmental Science Ward Circle Building, Room 101	G-1 Global Food Security: Using Science, Humanities and the Media to Develop Collaborative, Sustainable Solutions Ward Circle Building, Room 101	
F-2 Pedagogic Approaches to Teaching Climate Change – Multidisciplinary Strategies and Targeted Outcomes: A Focus on Ethics Ward Circle Building, Room 102	G-2 Pedagogic Approaches to Teaching Climate Change – Multidisciplinary Strategies and Targeted Outcomes: A Focus on Public Health and Alternative Strategies Ward Circle Building, Room 102	
F-3 Implications of Climate Solutions Ward Circle Building, Room 103	G-3 Global Water Perspectives: Ocean, Islands and Floodplains Ward Circle Building, Room 103	
F-4 Climate Engineering 1 Ward Circle Building, Room 104	G-4 Climate Engineering 2 Ward Circle Building, Room 104	
F-5 Critical Sustainability Ward Circle Building, Room 105	G-5 Population, Health and Environment: An Integrative Concept in Addressing Sustainability Ward Circle Building, Room 105	
F-6 Seeing the Future for the Trees: Why Complexity Is Critical to Sustainability Science, Communication, and Action (Discussion Symposium) Ward Circle Building, Room 106	G-6 Socio-Environmental Dialog Ward Circle Building, Room 106	
F-7 Indigenous and More Than Human Perspectives Ward Circle Building, Room 107	G-7 Rethinking the Environment: Collaboration and Entanglement Across Cultures and Species Ward Circle Building, Room 107	
F-8 Teaching, Knowledge, Action Ward Circle Building, Room 113	G-8 Representing People and Places Ward Circle Building, Room 113	
F-9 More-than-Human Ethnographies: Implications for Environmental Studies and Sciences SIS Building, Room 102	G-9 Human Faces vs Data Bases: Telling (and Selling) Stories About Science and Sustainability (Discussion Symposium) SIS Building, Room 102	
F-10 Sustaining in Nature SIS Building, Room 120	G-10 Conservation and Management of Natural Resources SIS Building, Room 120	
F-11 Waste Not SIS Building, Room 113	G-11 Waste and Water SIS Building, Room 113	
F-12 Learning Sustainability SIS Building, Room 233	G-12 Sociological Aspects of Environment SIS Building, Room 233	
F-13 A Line in the Sand: Approaches to Coastal Sustainability SIS Building, Room 333	G-13 Role of Minority-Serving Institutions in Engaging and Empowering Communities in Sustainable Water Resource Stewardship SIS Building, Room 333	

Opening Keynote

Wednesday, June 8, 2016 6:30pm

Ward Circle Building, Room 1



"Ushering in The Third Industrial Revolution and a Zero Marginal Cost Society"

Jeremy Rifkin President of the TIR Consulting Group LLC Founder and President, Foundation on Economic Trends Bethesda, Maryland

Jeremy Rifkin is the bestselling author of twenty-one books on the impact of scientific and technological changes on the economy, the workforce, society, and the environment. His books have been translated into more than thirty-five languages and are used in universities, corporations and government agencies around the world.

On April 1st, 2014 Mr. Rifkin's published his latest book, The Zero Marginal Cost Society: The Internet of Things, the Collaborative Commons, and the Eclipse of Capitalism. In 2011, Jeremy Rifkin published the New York Times bestseller The Third Industrial Revolution, which captured the attention of the world. Mr. Rifkin's vision of a sustainable, post carbon economic era has been endorsed by the European Union and the United Nations and embraced by world leaders including Chancellor Angela Merkel of Germany, President François Hollande of France, and Premier Li Keqiang of China. Mr. Rifkin's other recent titles include, The Empathic Civilization, The Age of Access, The End of Work, The European Dream, The Biotech Century and The Hydrogen Economy.

Jeremy Rifkin has been an advisor for the past 15 years to the European Union. Mr. Rifkin also served as an adviser to President Nicolas Sarkozy of France, Chancellor Angela Merkel of Germany, Prime Minister Jose Socrates of Portugal, Prime Minister Jose Luis Rodriguez Zapatero of Spain, and Prime Minister Janez Janéa of Slovenia, during their respective European Council Presidencies, on issues related to the economy, climate change, and energy security. He currently advises the European Commission, the European Parliament, and several EU and Asian heads of state.

Mr. Rifkin is the principal architect of the European Union's Third Industrial Revolution long-term economic sustainability plan to address the triple challenge of the global economic crisis, energy security, and climate change. The Third Industrial Revolution was formally endorsed by the European Parliament in 2007 and is now being implemented by various agencies within the European Commission as well as in the 28 Member States.

Closing Keynote

Saturday, June 11, 2016 12:30pm

Mary Graydon Center, Rooms 2-5



"How We Became the Enemy: The Sociological and Educational Origins of Our Environment Crisis"

James W. "Jim" Loewen

An American sociologist, historian, and author, best known for his book, *Lies My Teacher Told Me: Everything Your American History Textbook Got Wrong*. Washington, DC

James Loewen's gripping retelling of American history as it should, and could, be taught, *Lies My Teacher Told Me*, has sold more than 1,500,000 copies and continues to inspire K-16 teachers to get students to challenge, rather than memorize, their textbooks.

Jim Loewen taught race relations for twenty years at the University of Vermont. Previously he taught at predominantly black Tougaloo College in Mississippi. He now lives in Washington, D.C., continuing his research on how Americans remember their past. *Lies Across America: What Our Historic Sites Get Wrong* came out in 1999. The Gustavus Myers Foundation named his book, *Sundown Towns*, a "Distinguished Book of 2005." In 2010, Teachers College Press brought out *Teaching What Really Happened*, intended to give K-12 teachers (and prospective teachers) solutions to the problems pointed out in Loewen's earlier works.

As the Sesquicentennial of the Civil War approached, Loewen asked thousands of K-12 teachers in workshops and audiences about its cause(s). Depressed at their replies, he recruited a co-editor and published *The Confederate and Neo-Confederate Reader* (University Press of Mississippi, 2010), which sets the record straight in Confederates' own words.

He has been an expert witness in more than 50 civil rights, voting rights, and employment cases. His awards include the First Annual Spivack Award of the American Sociological Association for "sociological research applied to the field of intergroup relations," the American Book Award (for *Lies My Teacher Told Me*), and the Oliver Cromwell Cox Award for Distinguished Anti-Racist Scholarship. He is also Distinguished Lecturer for the Organization of American Historians, Visiting Professor of Sociology at Catholic University in Washington, DC, and Visiting Professor of African-American Studies at the University of Illinois in Urbana/Champaign. In 2012 the American Sociological Association gave Loewen its Cox-Johnson-Frazier Award, for "scholarship in service to social justice." He is the first white person ever to win this award. Also in 2012, the National Council for the Social Studies gave Loewen its "Spirit of America" Award, previously won by, inter alia, Jimmy Carter, Rosa Parks, and Mr. Rogers.

The Association for Environmental Studies and Sciences is honored to present the

2016 William R. Freudenburg Lifetime Achievement Award to **Dale Jamieson**

Chair of the Environmental Studies Department Professor of Environmental Studies, Philosophy Founding Director of Environmental Studies and Animal Studies Affiliated Professor of Bioethics Affiliated Professor Law New York University



Dale Jamieson is Professor of Environmental Studies and Philosophy, Affiliated Professor of Law, Affiliated Professor of Bioethics, and Chair of the Environmental Studies Department at New York University. He is also Distinguished Visiting Professor at the Dickson Poon School of Law at King's College, London, and Adjunct Professor at the University of the Sunshine Coast in Australia. Formerly he was Henry R. Luce Professor in Human Dimensions of Global Change at Carleton College, and Professor of Philosophy at the University of Colorado, Boulder, where he was the only faculty member to have won both the Dean's award for research in the social sciences and the Chancellor's award for research in the humanities. He has held visiting appointments at the National Center for Atmospheric Research, Cornell, Princeton, Stanford, Oregon, Arizona State University, and Monash University in Australia, and is a former member of the School of Social Sciences at the Institute for Advanced Study in Princeton.

He is the author of Reason in a Dark Time: Why the Struggle to Stop Climate Change Failed--and What It Means For Our Future (Oxford, 2014), Ethics and the Environment: An Introduction (Cambridge, 2008), and Morality's Progress: Essays on Humans, Other Animals, and the Rest of Nature (Oxford, 2002). He is also the editor or co-editor of nine books, most recently Reflecting on Nature: Readings in Environmental Philosophy, 2nd Edition (Oxford, 2012) with Lori Gruen and Chris Schlottmann, and has published more than one hundred articles and book chapters. His most recent book is Love in the Anthropocene (OR, 2015), a collection of short stories and essays written with the novelist, Bonnie Nadzam.

He is on the editorial boards of several journals including Environmental Humanities, Environmental Ethics; Science, Technology, and Human Values; Science and Engineering Ethics; Journal of Applied Animal Welfare Science; The Journal of Agricultural and Environmental Ethics; and the Journal of Applied Philosophy. His research has been funded by the National Science Foundation, the US Environmental Protection Agency, the National Endowment for the Humanities, and the Office of Global Programs in the National Atmospheric and Aeronautics Administration.

The Lifetime Achievement Award seeks to recognize and advance the spirit of AESS co-founder, the late Professor William R. Freudenburg, whose seminal work in risk perception, social disruption and the causes of environmental degradation helped to shape our contemporary discipline. Through his mentorship, Professor Freudenburg also spawned a new generation of environmental professionals who have pursued interdisciplinary research to address some of the most pressing issues of our time. Through this award, AESS honors members of the profession who have also devoted their lives to strengthening our field and fostering outreach to critical decision makers and the public.

Arts and the Environment

The arts play a vital role in spanning academic disciplines, engaging a wide array of audiences and engendering innovation in environmental studies and sciences.

Student Art

The 2016 Conference will feature student art from Project Create. Project Create, a local non-profit organization, provides accessible arts education to promote positive development in the lives of children, youth and families experiencing homelessness and poverty.



www.projectcreatedc.org

Film Night

Hosted by AU School of Communication, Center for Environmental Filmmaking June 9, 7:30pm

McKinley Building (2nd Floor), Malsi Doyle and Michael Forman Theater

Join us for film night with a focus on farming and food for the future. We'll show three short films we've made and follow the screenings with a panel discussion with experts, as well as with the SOC filmmakers (students and alums) who made them. Film night will illustrate how farmers and communities are expanding their farming traditions and practices and preserving farmland to meet the demands for sustainable, locally grown food.

Host and Moderator: Chris Palmer, Director of the Center for Environmental Filmmaking, School of Communication, American University

Panelists: Film and Multimedia Producer Aditi Desai; Chris Miller, President, Piedmont Environmental Council; and Carolynn Brunette, Managing Director, Prince Charitable Trusts

FARMING FOR THE FUTURE (USA, 2013, 7 min.) Cliff Miller of Mount Vernon Farm in the Virginia Piedmont is trying innovative management techniques to sustain his farm for future generations. Cliff's story is that of many farmers seeking new ways to be economically and environmentally sustainable. *Directed by Aditi Desai and produced by AU's Center for Environmental Filmmaking and the Prince Charitable Trusts.*

50 YEARS OF FARMING: FOR LOVE & VEGETABLES (USA, 2014, 10 min.) The story of Potomac Vegetable Farms, an organic farm in Virginia. *Directed by Aditi Desai. Produced by Vanina Harel. Executive produced by AU's Center for Environmental Filmmaking and the Prince Charitable Trusts.*

THE CULTURE OF COLLARDS (USA, 2016, 7 min.) Collard greens are more than a simple side dish. Brought to the American South with the slave trade, they represent a critical aspect of African American cultural history. A new generation of passionate farmers, culinary historians and educators work tirelessly to preserve and share this cultural heritage while promoting healthy communities. Hear their stories. *Directed and produced by Aditi Desai and Vanina Harel. Executive produced by AU's Center for Environmental Filmmaking and the Prince Charitable Trusts.*

Conference Photographer



Jessica Riehl is a professional photographer located in Portland, Oregon focusing on environmental and educational photography. She is passionate about using photography as a tool to showcase the work we do and as a tool for learning about the world. She has photographed small businesses, environmental advocacy efforts, universities, families, and learning journeys. Jessica holds a Masters of Science in Environmental Science and Policy from Johns Hopkins University and a Masters of Fine Art in Collaborative Design from the Pacific Northwest College of Art.

www.jessicariehl.com

Chronological Schedule

Wednesday, June 8

Registration

8:00am - 6:00pm School of International Service Building (SIS) Founders Room Lobby

Coffee and Pastries

8:00am - 9:30am SIS Founders Room Lobby

<u>All Day Workshops</u>

9:00am - 12:00pm and 1:00pm - 4:00pm SIS Building

W-1 Building Multi-Organizational **Collaborations: Design and Practice**

SIS Building, Room 120

Facilitator

Rob Alexander, James Madison University, alexanrw@jmu.edu

W-2 Environmental Risk Assessment, **Communication, and Prevention: Short Course!**

SIS Building, Room 113

Facilitator

David F. Goldsmith, Georgetown University, dfgoldsmith@gmail.com

W-3 Facilitating Socio-Environmental Synthesis: **Employing Model-Based Reasoning in Interdisciplinary Collaboration**

SIS Building, Room 233

Facilitator

Deana D. Pennington, University of Texas at El Paso, ddpennington@utep.edu

W-4 Promoting More Authentic Collaboration in **Inter- and Transdisciplinary Research**

SIS Building, Room 102

Facilitator

Whitney Lash Marshall, SUNY- ESF, wglash@esf.edu

Morning Workshops

9:00am - 12:00pm Ward Circle Building

W-5 Charting our Food System: Industrialized Agriculture, Damaged Frontline Communities, and the Effects of our Complicity

Ward Circle Building, Room 103

Facilitator

Zoe Ackerman, Rachel Carson Council. zoe@rachelcarsoncouncil.org

W-6 Developing Educational Games for **Environmental Studies and Science**

Ward Circle Building, Room 102

Facilitator

Curt Gervich, SUNY Plattsburgh, cgerv001@plattsburgh.edu

W-7 Getting Published: Preparing Manuscripts for Journal Submission

Ward Circle Building, Room 105

Facilitator

Kim Smith, Carleton College, ksmith@carleton.edu

W-8 Sustainable Living & Team Work

Ward Circle Building, Room 106

Facilitator

Bill Lauto, International Sustainability and Energy Consultant, goingtruegreen@gmail.com

W-9 Teaching Political Ecology: A Workshop on **Incorporating the Field of Political Ecology into** the Classroom

Ward Circle Building, Room 104

Facilitator

Michael Finewood, Pace University, mfinewood@pace.edu

W-10 The Art of Hosting: Interdisciplinary and **Collaborative Conversations**

Ward Circle Building, Room 113

Facilitator

Jessica Riehl, Samara Group, jessica.riehl@gmail.com

W-11 Using National Surveys on Energy and Environment (NSEE) Data in your Classroom

Ward Circle Building, Room 101

Facilitator

• **Sarah Mills**, University of Michigan, sbmills@umich.edu

W-12 Using Real-Time Campus Data to Explore Relationships Between Policy, Management and Behavior: Introduction to Teaching with Building Dashboard and BuildingOS

Ward Circle Building, Room 107

Facilitator

 John Edmund Petersen, Oberlin College, john.petersen@oberlin.edu

Lunch

12:00pm – 1:00pm *SIS Founders Room*

Afternoon Workshops

1:00pm – 4:00pm Ward Circle Building

W-13 Designing Collaborative Mobile Apps for Sustainability

Ward Circle Building, Room 101

Facilitator

• Eli Typhina, North Carolina State University, eli.typhina@ncsu.edu

W-14 Energy Education for Undergraduates

Ward Circle Building, Room 105

Facilitator

 David E. Blockstein, National Council for Science and the Environment, David@CEDD.org

W-15 Health, Environmental Protection, and Sustainability: Beyond the Obvious

Ward Circle Building, Room 107

Facilitator

 Tee Guidotti, Archives of Environmental and Occupational Health, tee@teeguidotti.com

W-16 Principles of Economic Assessments in Evaluating Environmental Policies and Programs

Ward Circle Building, Room 102

Facilitator

 John A. "Skip" Laitner, Economic and Human Dimensions Research Associates, EconSkip@gmail.com

W-17 The Art of Engagement: Invigorating Course Assignments with the Arts

Ward Circle Building, Room 104

Facilitator

 Katharine Owens, University of Hartford, kowens@hartford.edu

W-18 Translating Research to Inform Policy: How to Participate Effectively in the Policy Process

Ward Circle Building, Room 103

Facilitator

 Joanna Wozniak, Antioch University New England, jwozniak@antioch.edu

Opening Reception

4:15pm – 6:15pm SIS Founders Room and Lobby

Welcome and Opening Keynote

6:30pm – 8:30pm Ward Circle Building, Room 1

President's Opening Welcome

John A. "Skip" Laitner, AESS President
 Principal, Economic and Human Dimensions Research
 Associates

Keynote: Ushering in The Third Industrial Revolution and a Zero Marginal Cost Society

 Jeremy Rifkin, President, Foundation on Economic Trends, Bethesda, MD

Discussants

- **Michelle Wyman**, Executive Director, National Council for Science and the Environment, Washington, DC
- **Simon Nicholson**, Assistant Professor and Director of the Global Environmental Politics Program, School of International Service, American University, Washington, DC

Thursday, June 9

Registration

8:00am - 5:30pm SIS Founders Room Lobby

Coffee and Pastries

8:00am - 8:30am SIS Founders Room Lobby

Exhibit Hall Open

8:30am - 5:00pm SIS Founders Room

Plenary Session

8:30am - 10:00am Ward Circle Building, Room 1

The United Nations 2030 Sustainable Development Goals

Facilitator

James E. "Jim" McMahon, AESS 2016 Program Chair, Founder and Director, Better Climate Research and Policy Analysis, San Francisco Bay Area

Presenter

Patricia J. Beneke, Regional Director, United Nations Environment Programme, Washington, DC

Discussants

- Ira Feldman, President & Senior Counsel, Greentrack Strategies, Washington, DC
- **Julie Robinson**, Sustainability Programs Manager, Pima County Office of Sustainability & Conservation. Tucson, AZ
- Alden Mever, Director of Strategy & Policy, Union of Concerned Scientists, Washington, DC

Coffee Break

10:00am - 10:30am SIS Founders Room Lobby

Session A

10:30am - 12:00pm Ward Circle Building and SIS Building

A-1 Climate Change and Society: Sociological **Perspectives**

Ward Circle Building, Room 101

- CHAIR: Riley Dunlap, Oklahoma State University, rdunlap@okstate.edu Sociological Perspectives on Climate Change: An **Overview**
- Thomas K. Rudel, Rutgers University, rudel@aesop.rutgers.edu The Drivers of Global Warming: What Do They Look Like After the Paris Accords?
- Sharon L. Harlan, Northeastern University, s.harlan@neu.edu Climate Justice in an Unequal World: Science in Support of Local Action
- Rachael Showm, Rutgers University Public Opinion on Climate Change: Analysis and *Implications*

A-2 Different Approaches to Integrating Sustainability Across the Curriculum

Ward Circle Building, Room 102

- CHAIR: Daita Serghi, AASHE, daita.serghi@aashe.org
- Peggy Barlett, Emory University, antpfb@emory.edu Piedmont/Ponderosa model of infusing sustainability issues across the curriculum
- Weston Dripps, Furman University, weston.dripps@furman.edu Experience with integrating sustainability across the Furman University curriculum
- Srinivasan Raghavan, University of Missouri-Columbia, raghavans@missouri.edu The state of current teaching practice regarding inclusion of sustainability concepts within engineering curricula at universities in the District of Columbia (Washington, DC) and the adjacent states of Maryland and Virginia
- Neil Leary, Dickinson College, learyn@dickinson.edu Dickinson College's experience integrating sustainability across our curriculum

A-3 Obama's Environmental Legacy

(Discussion Symposium) Ward Circle Building, Room 103

- MODERATOR: Simon Nicholson, American University, simon.nicholson@american.edu
- **Kyle Ash**, Senior Legislative Representative, Greenpeace
- Joanna Lewis, Associate Professor, Georgetown University
- Frank Loy, former Undersecretary of State and Chief US Climate Negotiator, 1998-2001
- Sasanka Thilikasiri, Senior Policy Advisor, Oxfam America
- Larke Williams, State Department (former EPA) (invited)

A-4 Alternative Energy Technologies and Implementation - 1

Ward Circle Building, Room 104

- CHAIR: Laura Stroup, Saint Michael's College, lstroup@smcvt.edu Implementing the Smart grid—are the U.S. 'prosumer' and regional grids ready for distributed energy generation on the Clean Power Plan?
- **Ieremy Firestone**, University of Delaware, if@udel.edu Offshore Wind Energy in a Marine Spatial Planning Context, discussion of barriers to implementation, possible survey data regarding Wind Energy and sense of place
- **Kevin Jones**, Vermont Law School, kbiones@vermontlaw.edu Community Solar for Local Climate Benefit -legal models for community solar development and case studies of projects in Vermont-- how best to develop community solar for local communities' environmental and economic benefit
- Enid Kumin, eckumin@gmail.com Ecosystem-Based Management and Refining Governance of Wind Energy in the Massachusetts Coastal Zone: A Case Study Approach
- Alison Bates, University of Massachusetts Amherst, awbates@eco.umass.edu A comparative assessment of proposed offshore wind power demonstration projects in the United States

A-5 Green Infrastructure, Stormwater, and Water **Resource Management - Part 1**

Ward Circle Building, Room 105

- CHAIR: Michael Finewood, Pace University, mfinewood@pace.edu
- Sara Meerow and Joshua P. Newell, University of Michigan, sameerow@umich.edu A Green Infrastructure Spatial Planning Model for Building Urban Resilience in Detroit
- Katherine Meierdiercks. Siena College. kmeierdiercks@siena.edu The Effectiveness of Green Infrastructure at Improving Water Quality and Reducing Flooding at the Watershed-Scale
- Barton Kirk and Damon Weiss, Ethos Collaborative, bartkirk@gmail.com Transcendent Green Infrastructure: Partnerships, Policy, & Practice from the Pittsburgh Region
- Derren Rosbach, Worcester Polytechnic Institute, drosbach@wpi.edu From gray to green: reclaiming water resources through transdisciplinary collaboration and student engagement
- Marissa Matsler and Erin Looper, Portland State University, a.marissa.matsler@pdx.edu Making Green 'Fit' in a Grey City: the work of standards, codes, and classifications of nature in changing institutions and ecosystems in Portland, Oregon

A-6 Resources from the InTeGrate Project for Interdisciplinary Teaching about Earth for a Sustainable Future

Ward Circle Building, Room 106

- CHAIR: Dave Gosselin, University of Nebraka-Lincoln, dgosselin2@unl.edu. Co-authors: Dave Gosselin, University of Nebraska-Lincoln; Cathy Manduca, Carleton College; Monica Bruckner, Carleton College; Kristin O'Connell, Carleton College Processes, Products, and Resources for Interdisciplinary Teaching of Geoscience and Societal issues
- Caryl Waggett, Allegheny University, cwaggett@alleghenv.edu, Co-authors: Carvl Wagget, Allegheny University; Richard Gragg, Florida A&M University; Katrina Korfmacher, University of Rochester; Martha Richmond, Suffolk University Lead in the Environment
- Pamela McMullin-Messier, Central Washington University, McMullin@cwu.edu. Co-authors: Brittany Brand, Boise State University; Pamela McMullin-Messier, Central Washington University; Melissa Schlegel, College of Western Idaho Map your Hazards! - An interdisciplinary, place-based approach to assessing natural hazards, social vulnerability, risk and risk perception
- Christopher W. Sinton, Ithaca College, csinton@ithaca.edu. Co-authors: Christopher W. Sinton, Ithaca College; Nicole Davi, William Paterson University of New Jersey; Robert Turner, University of Washington Bothell; Terri Plake, Northwest Indian Teaching About Sustainability of Water Resources and

A-7 The Political Economy of Carbon Pricing

Ward Circle Building, Room 107

Agriculture

- CHAIR: Barry Rabe, University of Michigan, brabe@umich.edu Can We Price Carbon? Lessons from the Past Decade
- Leigh Raymond, Purdue University, lraymond@purdue.edu The Clean Power Plan: Are Reports of The Death of "Cap And Trade" Greatly Exaggerated?
- Christopher Borick and David Amdur (deceased), Muhlenberg College, cborick@muhlenberg.edu Individual Discount Rates and Carbon Tax Support: The American Context

A-8 Climate Change Across the Curriculum: **Engaging Academic Disciplines in Climate Change Education** (Discussion Symposium)

Ward Circle Building, Room 113

- MODERATOR: Eric J. Fretz, Regis University, efretz@regis.edu
- Chelsea Harry, Southern Connecticut University, harryc1@southernct.edu
- John Kinch, Michigan Energy Options, jkinch@michiganenergyoptions.org
- Corrine Taylor, Wellesley College, ctaylor1@wellesley.edu
- Annamarie Hatcher, Cape Breton University, annamarie_hatcher@cbu.ca
- Faith Kearns, California Institute for Water Resources, Faith.Kearns@ucop.edu
- Jeff Sinn, Winthrop University, sinnj@winthrop.edu

A-9 Overcoming Corporate Threats to Academic and Community Environmental Health Research on Industrial Animal Production

(Discussion Symposium) Ward Circle Building, Room 114

- MODERATOR: Tracy Perkins, Howard University, tracv.perkins@howard.edu
- Marianne Engelman Lado, Earthjustice, mengelmanlado@earthjustice.org
- Naeema Muhammad. North Carolina Environmental **Justice Network**
- Robert K. Musil, Rachel Carson Council; American University, musil@american.edu
- Steve Wing, UNC-Chapel Hill School of Public Health, steve_wing@unc.edu

A-10 Space, Land, and Commons

SIS Building, Room 102

- CHAIR: Tatyana B. Ruseva, Appalachian State University, rusevatb@appstate.edu. Co-authors: James Farmer, Indiana University, Bloomington, jafarmer@indiana.edu; Michael Drescher, University of Waterloo, mdrescher@uwaterloo.edu Design principles for resource conservation on private lands: Learning from the common-pool resource literature
- Alexander Hall, US EPA, hall.alexander@epa.gov. Coauthors: Kate Mulvaney, US EPA, mulvaney.kate@epa.gov; Michael Nye, US EPA, nye.michael@epa.gov Spatial Variation in Community Sustainability Outcomes: a Local Analysis Using Geographically Weighted Regression
- Albert Johnson, Locust Group, LLC, AJohnsonLGRP@gmail.com Experience and Meaning for Sense of Place
- Mike Bryson, Roosevelt University, mbryson@roosevelt.edu From the Borders of Eden: Contamination, Restoration, and Other Stories of the Urban Wild on Chicago's South
- Michael R. Barnes, University of Minnesota Twin Cities, mrbarnes@umn.edu. Co-author: Kristen C. Nelson, University of Minnesota Twin Cities Sustainable Vegetation Through Low-input Turfgrasses: The Influence of Public Land Manager Beliefs

A-11 Can Shale Gas Help Accelerate the Transition to Sustainability?

SIS Building, Room 120

- CHAIR: John Dernbach, Widener University Commonwealth Law School, jcdernbach@widener.edu
- James R. May, Widener University Delaware Law School, irmay@widener.edu
- Pamela Ko, Sage College of Albany, kopa@sage.edu
- Patricia E. Salkin, Touro College of Law, psalkin@tourolaw.edu

A-12 Forest Health, Communities, and **Environmental Learning**

SIS Building, Room 233

- CHAIR: Lissy Goralnik, Oregon State University, lissy.goralnik@oregonstate.edu. Co-authors: Kari O'Connell, Oregon State University, kari.oconnell@oregonstate.edu: Mark Schulze. Oregon State University, HJ Andrews Experimental Forest, mark.schulze@oregonstate.edu H.J. Andrews Forest Discovery: A Conceptual Framework for Interdisciplinary Interpretation and Empathy **Development**
- Glenn Nelson, Northampton Community College Verticillium Wilt in Suburban Norway Maples
- Neda Movahed, Arizona State University, nmovahed@asu.edu. Co-authors: Candice Carr Kelman, Arizona State University; Ute Brady, Arizona State University

Collaboration as Collective Action: Exploring forestrestoration collaboratives in Arizona

- Majory Silisyene, University of Minnesota, silis003@umn.edu Mobile Phone Technology Use in Rural Contexts: Can Mobile Phones be Used in Rural Areas for Environmental **Education Purposes?**
- Crista L. Straub. Unity College, cstraub@unity.edu, Coauthor: Jessica E. Leahy, University of Maine Forests Pests in New England: Landowner Preferences for Community Response Plan

A-13 Art. Science. Behavior

SIS Building, Room 333

- CHAIR: Amanda E. Sorensen, Rutgers University, amasoren@rutgers.edu. Co-authors: Rebecca C. Jordan, Rutgers University; Rachael L. Shwom, Rutgers University; Diane Ebert-May; Cindy Isenhour, cynthia.isenhour@maine.edu; Aaron M. McCright; Jennifer Meta Robinson Model-based reasoning to foster environmental and socio-scientific literacy in higher education
- Aaron Hegde, California State University, Bakersfield, shegde@csub.edu. Co-author: John Deal, Manchester University, jldeal@manchester.edu Using an inter-disciplinary approach to affect behavior for sustainable management of resources
- James M. Lipuma, New Jersey Institute of technology, lipuma@niit.edu Obstacles to Science Literacy and Environmentally Related STEM Majors for Women and Minorities
- Kate J. Darby, Huxley College, Western Washington University, darbyk@wwu.edu "It's the end of the world as we know it." Now what?: Assignments to connect empathy, agency and hope
- Christopher Haines, Permadigms, cahaines1@verizon.net The Art and Science Behind a Sustainability Curriculum

Poster Session 1

12:15pm – 2:00pm *SIS Atrium*

P1-1 Operationalizing 'Sustainability Culture'

• Rob Alexander, James Madison University, alexanrw@imu.edu

P1-2 Prepare to Prevent - Reducing Flood Losses with the National Flood Insurance Program's Community Rating System

 Jennifer Argote, Louisiana State University - College of the Coast and Environment, jennifer.argote@gmail.com

P1-3 Quantifying Resilience in Ecological Systems: Implications for Coupled Social Systems

 Rebecca Bevans, University of Nebraska - Lincoln, Nebraska Cooperative Fish and Wildlife Unit, bevansbecca@gmail.com

P1-4 Using a multi-class service-learning project to enhance ecological literacy

 Robin Collins, Champlain College, rcollins@champlain.edu. Co-authors: Cheryl A. Casey, Champlain College, ccasey@champlain.edu; Christina Erickson, Champlain College, cerickson@champlain.edu

P1-5 Synergistic approaches to environmental research, planning, and implementation: How urban trees united the community, university, and city government in Wilmington,DE

 Asia L. Dowtin, University of Delaware, Department of Geography, adowtin@udel.edu. Co-authors, Herbert W. White, City of Wilmington, DE, Department of Public Works, hwwhite@wilmingtonde.gov; Delphis F. Levia, University of Delaware, dlevia@udel.edu

P1-6 Effectiveness of Journaling in Promoting Development of Emotional and Intellectual Attachment to Place

 Rebecca E. Kelly, St. Mary's College of Maryland, rekelly@smcm.edu. Co-author: Joshua A. Staley, St. Mary's College of Maryland, jastaley@smcm.edu

P1-7 U.S. Domestic Politics of Climate Engineering

 Kendl Kobbervig, University of Wisconsin - Madison, kobbervig@wisc.edu

P1-8 PressForward: Science Research, Collaboration, and Publication in Digital Spaces

 Eric Olson, George Mason University, eric@pressforward.org. Co-authors: Stephanie Westcott and Roy Rosenzweig, Center for History and New Media

P1-9 The Global 2100 Project

 Bryan Michael Parthum, Our Task, Bryan@ourtask.org

P1-10 Writing a transnational history of nitrogen loss and efficiency. Junctions and disjunctions of agricultural sciences, policy and sustainability in Chile

 William San Martin, University of California, Davis, wsanmartin@ucdavis.edu

P1-11 Impact of Climate Change on Five Regions of Virginia

 Shobha Sriharan, Virginia State University, shobha_2001@yahoo.com

P1-12 Policy Innovations in Single-Family Green Building

 Matt Watkins, University of Delaware, mwatkins@udel.edu

P1-13 "Fractivism": The Growing Grassroots Movement Against Fracking's Toxic Legacy

• Yonit Yogev, The Evergreen State College, yonityogev@gmail.com

Lunch

12:15pm – 1:45pm SIS Founders Room Lobby

Lunch Roundtable Discussions

12:30pm – 1:45pm *SIS Rooms 102 and 120*

R-1 Creating Successful Community Based Environmental Projects

SIS Building, Room 102

 FACILITATOR: Pamela Herring, University of Texas Rio Grande Valley, pamela.herring@utrgv.edu

R-2 Discussion of Interdisciplinary Course-based Undergraduate Research Experiences (CUREs)

SIS Building, Room 120

 FACILITATOR: Mikaela Schmitt-Harsh, James Madison University, schmi2ml@jmu.edu

<u>Journal of Environmental Studies and Sciences (JESS) Editorial Board</u> Meeting

12:30pm – 1:45pm *SIS Building, Room 355*

Session B

2:00pm - 3:30pm Ward Circle Building and SIS Building

B-1 Climate Change, Uncertainty and Managing **Investment Strategies for Adaptation and** Mitigation

Ward Circle Building, Room 101

- CHAIR: Michael Brody, American University, mbrody@american.edu
- Alexander Golub and Michael Brody, American University, agolub@american.edu Real Options Analysis and Climate Policy
- Ken Conca, American University, conca@american.edu Issues in investment in water infrastructure and climate uncertainty
- Peter Linguiti, George Washington University, linguiti@gwu.edu COP 21, sequential decisionmaking and real options analysis
- Jon Anda, jonanda@me.com Real Options and Wall Street

B-2 Sustainability Production and Practice for Higher Education

(Discussion Symposium) Ward Circle Building, Room 102

- MODERATOR: James Anthony Abbott, Stetson University, tabbott@stetson.edu
- Timothy Ryder. Climate Reality. rvder.dioxide@gmail.com
- Kiryssa Kazprzyk, kkasprzy@gmail.com
- Leslie Gray, Santa Clara University, lcgray@scu.edu
- **Cathy Middlecamp**, University of Wisconsin-Madison, chmiddle@wisc.edu
- Robert Brecha, University of Dayton, rbrecha1@udayton.edu
- Mary Ann Cunningham, Vassar College, macunningham@vassar.edu
- **Dustin Mulvaney**, San Jose State University, dustin.mulvaney@gmail.com
- Daita Serghi, AASHE, daita.serghi@aashe.org

B-3 Working Inside the Beltway: The Practice of **Environmental Politics**

(Discussion Symposium) Ward Circle Building, Room 103

- MODERATOR: Paul Wapner, American University, pwapner@american.edu
- Sajid Anwar, Disaster Risk Management and Sustainable Recovery Expert, World Bank
- Caitlin Giblin, Deputy Director of Development, Greenpeace
- Jacqueline Ostfeld, Nearby Nature Director, Sierra
- Joe Thwaites, Research Analyst, World Resources Institute (invited)

B-4 Alternative Energy Technologies and Implementation - 2

Ward Circle Building, Room 101

- CHAIR: Curt Gervich, SUNY Plattsburgh, cgerv001@plattsburgh.edu Microgrid feasibility in Plattsburgh, NY and possibly in Nigeria (co-authored with collaborators): Case studies and lessons learned.
- Nirav S. Patel, Cornell University, nsp6@cornell.edu Teach teachers and they shall teach: The role of training program on educators' motivations to teach sustainability and renewable energy
- Mary Finley-Brook, University of Richmond, mbrook@richmond.edu Environmental Justice with Decarbonization
- Maggie Roth, Johns Hopkins University, mkroth11@gmail.com Energizing Women of the North: A meta-analysis of women's incorporation in clean energy policy in North America & Europe
- Vera Barinova, RANEPA, barinova@iep.ru Do innovations really matter for sustainable development?
- Tatiana Lanshina, RANEPA, Lanshina@ranepa.ru Russian Participation in the International Renewable Energy Governance
- Valerie Rountree, University of Arizona, vrountree@email.arizona.edu Outcomes of Renewable Portfolio Standards and the Role of Stakeholder Participation

B-5 Green Infrastructure, Stormwater, and Water **Resource Management - Part 2**

Ward Circle Building, Room 105

- CHAIRS: Michael Finewood, Pace University, mfinewood@pace.edu and Joshua Zivkovich, Chatham University Is it really political? An exploration of barriers to green infrastructure implementation in Pittsburgh
- Andrea Armstrong, Lafayette College, armstral@lafayette.edu Obstacles to small municipal stormwater governance in
- Melissa Keeley and Marietta Gelfort, George Washington University, keeley@gwu.edu Green Infrastructure Lesson Learning
- Abby Lindsay, American University, abby.lindsay@american.edu Urban Water Governance in Peru: Social Learning, Power, and Practice
- Emily Vail, Cornell University, New York State Water Resources Institute, emily.vail@dec.ny.gov Barriers to Green Infrastructure in the Hudson Valley, NY: Implications for Science & Policy
- Alison Bates, University of Massachusetts Amherst, awbates@eco.umass.edu A comparative assessment of proposed offshore wind power demonstration projects in the United States

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B-6 Interdisciplinary Approaches to Environmental Challenges: What Role for Qualitative Methods?

(Discussion Symposium)
Ward Circle Building, Room 106

- MODERATOR: Christine Vatovec, University of Vermont, cvatovec@uvm.edu
- Kristal Jones, University of Maryland, kristal.jones@gmail.com
- Susan Caplow, University of Montevallo, scaplow@montevallo.edu
- Joanna Pollock, University of Arkansas, jbperson@uark.edu

B-7 The Next Generation of Trade? Promoting the Environment through Trade Agreements

Ward Circle Building, Room 113

- CHAIR: Abby Lindsay, American University, abby.lindsay@american.edu
- **Tiffany Prather**, U.S. Department of State, pratherta@state.gov

 US Efforts to Integrate the Environment into Trade Agreements
- Oscar Ceville, Organization of American States, oceville@oas.org
 Impacts of Free Trade Agreements within Latin America: Role of Environmental Coooperation
- Adam Diamond, American University adiamond@american.edu Critical Perspective of Agricultural Liberalization and How Protecting Food Production Capacity Affects Negotiations

B-8 Changing Lightbulbs is Not Enough: Fostering Civic Engagement on Climate Change in Higher Education

(Discussion Symposium)
Ward Circle Building, Room 114

- MODERATOR: Clara Changxin Fang, Earth Deeds, clara@earthdeeds.org
- Eban Goodstein, Bard Center for Environmental Policy, ebangood@bard.edu
- Daniel Greenberg, Earth Deeds, daniel@earthdeeds.org
- Wendy Lee, Bloomsburg University, wlee@bloomu.edu

B-9 Developing Integrated Urban Resiliency: The Nexus between Water, Food, Energy and Public Health

(Discussion Symposium) SIS Building, Room 102

 CO-MODERATOR: Katherine O'Neill, Roanoke College, oneill@roanoke.edu

[continued]

- **CO-MODERATOR: Tamim Younos**, Green Water-Infrastructure Academy, tyounos@gmail.com
- Juneseok Lee, San Jose State University, Juneseok.Lee@sisu.edu
- Tammy Parece, Virginia Tech, tammyep@vt.edu

B-10 Environmental Dashboard: Using Displays of Resource Use and Community Voices on Multiple Campuses to Foster Connections and Empower Stewardship

SIS Building, Room 120

- CHAIR: John E. Petersen, Oberlin College, john.petersen@oberlin.edu. Co-authors: Augustus Arthur, Oberlin College, augustus.arthur@oberlin.edu; Darrel Tremaine, Oberlin College, darrel.tremaine@oberlin.edu

 Environmental Dashboard: Overview of technology, approach and implementation in Oberlin
- Md Rumi Shammin, Oberlin College, rumi.shammin@oberlin.edu
 Collaboration and use of Environmental Dashboard and BuildingOS as tools in introductory and upper level classes
- Douglas White, Albion College, dwhite@albion.edu
 Lessons learned in launching Environmental Dashboard on a new campus
- Evangeline Heiliger, Oberlin College, evangeline.heiliger@oberlin.edu
 Learning outcomes for students working in a community to develop pro-environmental content for Community Voices that is sensitive to power, race, gender, sexuality, ability and class
- Jeanette Pope, DePauw University, jpope@depauw.edu Using Environmental Dashboard to connect previously disparate initiatives and improve collaboration within campus and between campus and community
- Steven Bouma-Prediger, Hope College, boumapred@hope.edu
 Integration of Environmental Dashboard into multiple courses at Hope
- Christie L. Parris, Oberlin College, cparris@oberlin.edu Analyzing Environmentally Responsible Behavior (ERB) in the City of Oberlin based on text analysis of multiple Community Voices interviews: Variation across age, gender, race and conceptualization of sustainability
- **Deborah Roose**, Oberlin College, deborah.roose@oberlin.edu College students and faculty working with K-12 teachers to use Environmental Dashboard as a tool for interdisciplinary teaching that promotes systems thinking
- Kim Landsbergen, Antioch College, klandsbergen@antiochcollege.org Environmental Dashboard as a catalyst for collaboration, a showcase for authentic community engagement and a feedback system that informs and motivates resource use conservation

B-11 Food Systems

SIS Building, Room 113

- CHAIR: Mary B. Collins, SUNY College of Environmental Science and Forestry, mbcollin@esf.edu
- Evan Weissman, Syracuse University, eweissma@syr.edu. Co-author: Matthew Potteiger, SUNY ESF, mpotteig@syr.edu Collaboration and Diverse Stakeholder Participation in Food Planning and Policy Development: A Case Study from Central New York
- Colton Fagundes, American University, coltonfagundes331@gmail.com North American Tribal Food Sovereignty Initiatives: The Decolonizing Potential of Alternative Ontologies and Traditional Agricultural Knowledge
- Summer Gioia Harrison, Drew University, sharrison1@drew.edu 'Your liberation is bound up with mine': Solidarity Pedagogy and Empathic Citizenship in Community-Based Learning Courses
- J. G. Arbuckle, Iowa State University, arbuckle@iastate.edu How understanding facilitators of and barriers to farmers' use of nutrient management practices can inform collaborative action: Evidence from Iowa
- Christopher Schlottmann, New York University, cps236@nyu.edu Naturalness as a Guiding Principle for Environmentally Responsible Food
- Allison Chatrchyan, Cornell University, amc256@cornell.edu CICCA: Integrating Science, Outreach and Education for Climate Resilient Farming and Rural Communities

B-12 Humanities and Adaptation

SIS Building, Room 233

- CHAIR: Steven Gable, Trinity Washington University, GableS@trinitydc.edu
- James Brey, American Meteorological Society, brey@ametsoc.org. Co-authors: Chad Kauffman, American Meteorological Society, ckauffman@ametsoc.org; Ira Geer, American Meteorological Society, geer@ametsoc.org; Elizabeth Mills, American Meteorological Society, mills@ametsoc.org; Kira Nugnes, American Meteorological Society, knugnes@ametsoc.org; Abigail Stimach, American Meteorological Society, astimach@ametsoc.org Educating to Live More Sustainably in Our Changing Climate
- Daniel J. Hicks, AAAS Science and Technology Policy Fellowships, hicks.daniel.j@gmail.com Communicating Trustworthiness for Environmental Science and Policy

[continued]

- Steven A. Kolmes, University of Portland, kolmes@up.edu Epigenetics, Toxic Exposure, and the Common Good: a Perspective on the Human Genome and Catholic Social **Teaching**
- Susan E. Gass, Dalhousie University, susan.gass@dal.ca Using case studies in a first year Environmental Science class as a means of engaging students in deeper learning
- Rebecca Jordan, Rutgers University, rebeccacjordan@yahoo.com. Co-authors: Shannon LaDeau, Cary Institute; Amanda E. Sorensen, Rutgers University Sustainability, Collaboration, and Citizen Science

B-13 Creative Collaborations: Investigations in **Art, Science & Teaching**

SIS Building, Room 333

- CHAIR: Emily L. Bosanguet. Pacific Northwest College of Art, ebosanquet@pnca.edu *Art+Science: A collaboration between contemporary art* practice, scientific investigation and higher education
- Michelle Hayford, University of Dayton, mhayford1@udayton.edu Sustenance: an original play about sustainability to promote empathy and action
- Jeff Ramsey, Smith College, jramsey@smith.edu Towards a Normative Account of Affect and Emotion in Environmental Experience
- Stephen Posner, COMPASS, stephen.posner@compassonline.org The Impact of Boundary Organizations
- Yehuda L. Klein, Brooklyn College, vklein@brooklyn.cuny.edu. Co-author: Tomas Lopez-Pumarejo, Brooklyn College, samot25@mac.com The Urban Sustainability Curriculum Within a School of
- Nancy J. Manring, Ohio University, manring@ohio.edu Team-based Sustainability Education: Collaborating Across Disciplines

Poster Session 2

2:15pm – 4:30pm *SIS Atrium*

P2-1 Kishanganga Diversion - Ethnicity, Nationality and Environmentalism in the divided Kashmir

• **Jahan Zeb Ahmed**, American University, ja2533a@american.edu

P2-2 Understanding Global Sustainable Development Discourses within Eco-labeled Companies

 Amanda Borth, American University, ab0981a@student.american.edu

P2-3 Sustainability Education

 Heather Heckel, American University, heckel@american.edu

P2-4 Assessing the Impact of Reducing Emission from Deforestation and Degradation (REDD+) on the Sustainable Development Goals in Cameroon

 Richard S. Mbatu and Coleman Ewell, University of South Florida-St. Petersburg, mbatu@mail.usf.edu

P2-5 Using Virtual Reality Technologies to Illuminate Climate Suffering

 Michael Thompson, American University, michael@ceassessment.org

Coffee Break

3:30pm – 4:00pm SIS Founders Room Lobby

Session C

4:00pm – 5:30pm

Ward Circle Building and SIS Building

C-1 Divestment: Useful Strategy or Distraction?

Ward Circle Building, Room 101

- CHAIR: Robert Brecha, University of Dayton, rbrecha1@udayton.edu
- **Eric Godoy**, ericsgodoy@gmail.com *Sharing Responsibility to Divest*
- Rebecca C. Potter, University of Dayton, rpotter1@udayton.edu
 The story of divestment: Narrative practices that work
- Abigail Abrash Walton, Antioch University New England, aabrash@antioch.edu
 Organizational Leadership and Fossil Fuel Divestment: Exploring Positive Deviance and Proenvironmental Behavior

C-2 AESS and the North American Association for Environmental Education (NAAEE)

(Discussion Symposium)
Ward Circle Building, Room 102

- MODERATOR: Susan Caplow, University of Montevallo, scaplow@montevallo.edu
- Ruth Kermish-Allen, Island Institute, rkermishallen@antioch.edu
- Liz Beattie, University of British Columbia, lizbeattie22@gmail.com

C-3 Global Environmental Politics

Ward Circle Building, Room 103

- **CHAIR: Jim McMahon**, Better Climate, iim@betterclimate.info
- Wil Burns, Forum for Climate Engineering Assessment, American University, wil@feronia.orgThe Role of Loss and Damage in the United Nations Framework Convention on Climate Change
- Wil Burns, Forum for Climate Engineering Assessment, American University, wil@feronia.org The European Union's Emissions Trading System: Leviathan or Laggard?
- **David Driesen**, Syracuse University College of Law, ddriesen@law.syr.edu

 Toward a Populist Political Economy of Climate

 Disruption
- John Berg, Suffolk University, jberg@suffolk.edu Looking Back on Obama's Environmental Policy
- Kristen Goodrich, University of California Irvine, k.goodrich@uci.edu
 Harmonizing environmental and human security: insights to sustainable strategies for mitigating flood risk

C-4 Qualitative Research as a Tool for Examining Sustainability Challenges

Ward Circle Building, Room 104

- CHAIR: Jean Leon Boucher, George Mason University, JLB964@gmail.com Multi-Methods: Augmenting a Quantitative Sample with In-Depth Interviews
- Sharon Moran, SUNY Environmental Science and Forestry, smoran@esf.edu
 Rode Out the Storm: Listening to Non-evacuators after Superstorm Sandy
- Brian R. Bulla, Purdue University, bbulla@purdue.edu Applying Qualitative Analysis to Text in a Comparative Case Study of Wind Energy Development in Coastal Massachusetts
- Enid Kumin, Antioch University, eckumin@gmail.com Applying Qualitative Analysis to Text in a Comparative Case Study of Wind Energy Development in Coastal Massachusetts

C-5 Green Infrastructure, Stormwater, and Water **Resource Management - Part 3**

Ward Circle Building, Room 105

- CHAIR: Michael Finewood, Pace University, mfinewood@pace.edu
- Michael Simpson, Antioch University New England, msimpson@antioch.edu The Role of Green Infrastructure to Mitiaate Vulnerability of Water Conveyance Infrastructure Due to a Higher Frequency of More Extreme Precipitation Events
- Thomas Bryan, University of Wisconsin, tbryan@wisc.edu Analysis of fungal-coliform interactions in a myceliumbased biofilter and the implications for stormwater and wastewater treatment
- Gary Silverman, University of North Carolina, Charlotte, gsilver1@uncc.edu A Discussion of Risk Avoidance Practices Limiting Household Greywater Reuse
- Michael Pennino, Princeton University, mpennino@princeton.edu Watershed Scale Impacts of Stormwater Green Infrastructure on Hydrology, Nutrient Fluxes, and Combined Sewer Overflows in the Mid-Atlantic Region
- **DISSCUSANT: Sara Meerow**, University of Michigan, sameerow@umich.edu

C-6 Communication and Collaboration

Ward Circle Building, Room 106

- CHAIR: Julia Fischer-Mackey, American University, juliamackey@gmail.com
- Clara Changxin Fang, Earth Deeds, clara@earthdeeds.org From Plato to Elizabeth Bishop: The Role of Literature in Environmental Studies
- Tracy Perkins, Howard University, tracy.perkins@howard.edu California Environmental Justice Activism and the Limits of Racial Representation in Environmental Decision Makina
- Sarah Groeneveld, Gettysburg College, sgroenev@gettysburg.edu Poetry and Praxis: A Humanities Approach to Environmental Justice
- Mark Neff, Western Washington University, mark.neff@wwu.edu An Offering of Humanistic Insights to the Debate over Moving Species for Climate Adaptation
- Karen Litfin, University of Washington, litfin@uw.edu Contemplation and Action in Anthropocene Politics: Integrating Science, Empathy and Collaboration in Service to the Future

C-7 Environmental Trends and Foresight **Planning**

Ward Circle Building, Room 107

- **CO-CHAIR: Elizabeth Corona**, US Environmental Protection Agency, corona.elizabeth@epa.gov
- **CO-CHAIR: Joseph Greenblott**, US Environmental Protection Agency, greenblott.joseph@epa.gov The EPA Strategic Foresight Panel
- Jason Jabbour, UN Environment Program, jabbour.jason@unep.org. Co-author: Michael Brody, American University The 6th UNEP Global Environmental Outlook for North America
- Scot Hagerthy, US Environmental Protection Agency, hagerthy.scot@epa.gov EPA Report on the Environment

C-8 Coordinated Climate Education: Leveraging **National Models**

(Discussion Symposium) Ward Circle Building, Room 113

- MODERATOR: Eban Goodstein. Bard Center for Environmental Policy, ebangood@bard.edu
- Curt Gervich, SUNY Plattsburgh, cgerv001@plattsburgh.edu The InTeGrate Experience
- Peter Buckland, Penn State University, pdb118@psu.edu The Power Dialog in Pennsylvania
- Rob Alexander, James Madison University, alexanrw@jmu.edu Engaging Policy Makers in Collaborative Climate **Education**
- Rob Andrewjewski, University of Richmond, randreie@richmond.edu Campus-wide impacts of the Power Dialog in Virginia

C-9 Appraising Research on Religion and Climate Change

(Discussion Symposium) SIS Building, Room 102

- **CO-MODERATOR: Evan Berry**, American University, berry@american.edu
- CO-MODERATOR: Barry Rabe, University of Michigan, brabe@umich.edu
- **Todd Eisenstat.** American University. eisensta@american.edu
- Robin F. Globus, Iowa State University, robin.globus@gmail.com
- Chenyang Xiao, American University, xiao@american.edu
- Christopher Borick, Muhlenberg College, cborick@muhlenberg.edu
- Robert Jones, Public Religion Research Institute, rjones@publicreligion.org

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C-10 Integrating Social Sciences and Informing Decisions with Carbon Cycle Science: A Retrospective Technical Assessment

(Discussion Symposium) SIS Building, Room 120

- **CO-MODERATOR: Gyami Shrestha**, U.S. Carbon Cycle Science Program, CCIWG, USGCRP/UCAR, gshrestha@usgcrp.gov
- CO-MODERATOR: Paty Romero-Lankao, University Corporation for Atmospheric Research (UCAR), prlankao@ucar.edu
- **Emily Cloyd**, USGCRP/NCA/ICF, ecloyd@usgcrp.gov
- Benjamin Preston, Oakridge National Lab, prestonbl@ornl.gov
- Nancy Cavallaro, USDA-NIFA, ncavallaro@usda.gov
- **Sian Mooney**, Arizona State University, Sian.Mooney@asu.edu

C-11 Fossil Fuels and Publics: Perception, Participation, and Policy

SIS Building, Room 113

- CHAIR: Mary Collins, SUNY-ESF, mbcollin@esf.edu
 Fracking, climate change, and nuclear power are
 like...hand guns: An examination of public opinion on
 politically charged hazards
- **George Busenberg**, Soka University of America, gbusenberg@soka.edu
 Oil and Wilderness in Alaska: Natural Resources,
 Environmental Protection, and National Policy
 Dynamics
- Peter Linquiti, George Washington University, linquiti@gwu.edu. Co-author: Nathan Cogswell The Carbon Ask: Effects of Climate Policy on the Value of Fossil Fuel Resources & the Implications for Technological Innovation
- Kirk Jalbert, The FracTracker Alliance; Drexel University Center for Science, Technology and Society, jalbert@fractracker.org Revealing the Risks of Oil and Gas Extraction at the Intersection of Research, Public Participation, and Environmental Communication
- **Tom Kerns**, North Seattle College, tkerns@uw.edu 2017 International Permanent Peoples' Tribunal on the Human Rights Impacts of Fracking

C-12 Science, Empathy, Collaboration and Sustainability: Case Studies from the Philippines

SIS Building, Room 233

- CHAIR: Aileen Guzman, Ateneo de Manila University, mguzman@ateneo.edu
- Nathaniel Ragas, Ateneo de Manila University, nathanragas@yahoo.com
 Fish Abundance Diversity and Distribution in Lake Palakpakin, San Pablo City, Laguna, Philippines

[continued]

- Carissa Quintana, Ateneo de Manila University, carissaquintana@gmail.com
 Modelling Nutrient Dynamics in Lake Palakpakin, San Pablo City, Laguna, Philippines
- Anna Laura Quintal, Ateneo de Manila University. Coauthor: Kendra Gotangco, Ateneo de Manila University Modelling Land Use Change in Lake Palakpakin Using the Land Transformation Model
- Leandro Kintanar, Ateneo de Manila University, leankints@gmail.com
 Design of a Picohydro System Using Locally Available Scrap Materials

C-13 On the Ground, Under the Ground?...Farms and Mines

SIS Building, Room 333

- CHAIR: Deborah Naybor, Paul Smiths College, dnaybor@paulsmiths.edu
 Examining Climate Change Resilience Among Subsistence Farmers
- Jacob Wall, Colby College, jawall@colby.edu. Coauthor: Travis Reynolds, Colby College, twreynol@colby.edu Missing the Trees for the Forest: The Socioecological Significance of Scattered Trees in Northern Ethiopian Cropland
- Rachel Nadelman, American University, rachelnadelman@gmail.com
 El Salvador: Choosing Water over Gold
- Marjorie D. A. Rodrigues, Unicamp/Brazil, marjorie.delg@gmail.com. Co-authors: Mr. Gustavo Mozzer, Unicamp; João Luiz de Moraes Hoeffel, FAAT/Brazil; Giampaolo Queiroz Pellegrino, Embrapa/Brazil; Sônia Regina da Cal Seixas, Unicamp/Brazil; Simone Aparecida Vieira, Unicamp/Brazil Stakeholder influence and farmers motivation to address climate change and join environmental conservation actions
- Amber Orozco, American University, amber.orozco.13@gmail.com
 Bridging the Struggles of Urban & Rural Discrimination: Cultivating Solidarity--and Sustainable Agriculture

Reception

5:15pm – 6:15pm SIS Founders Room Lobby

AESS Member Meeting

6:00pm – 7:20pm Ward Circle Building, Room 1

Film Night

7:30pm - 9:30pm McKinley Building (2nd Fl.), Doyle/Forman Theater

Host and Moderator:

Chris Palmer, Director of the Center for Environmental Filmmaking, School of Communication, American University

Panelists:

- **Aditi Desai**, Film and Multimedia Producer
- Chris Miller, President, Piedmont Environmental
- Carolynn Brunette, Managing Director, Prince Charitable Trusts

FARMING FOR THE FUTURE (USA, 2013, 7 min.) Directed by Aditi Desai and produced by AU's Center for

Environmental Filmmaking and the Prince Charitable Trusts.

50 YEARS OF FARMING: FOR LOVE & VEGETABLES (USA, 2014. 10 min.)

Directed by Aditi Desai. Produced by Vanina Harel. Executive produced by AU's Center for Environmental Filmmaking and the Prince Charitable Trusts.

THE CULTURE OF COLLARDS (USA, 2016, 7 min.) Directed and produced by Aditi Desai and Vanina Harel. Executive produced by AU's Center for Environmental Filmmaking and the Prince Charitable Trusts.

[See page 16 for film descriptions.]

Friday, June 10

Registration

8:00am - 11:30am SIS Founders Room Lobby

Coffee and Pastries

8:00am - 9:00am SIS Founders Room Lobby

Exhibitor Hall Open

8:00am - 12:30pm SIS Founders Room

Poster Session 3

9:00am - 11:30am SIS Atrium

P3-1 Implications of Seed Policies for On-farm Agro-biodiversity and Food Security in Ethiopia and Uganda

Thomas A. Currier, Colby College, tcurrier@colby.edu. Co-authors: Travis Reynolds, Colby College, twreynol@colby.edu; Gloria Otieno, Bioversity International, g.otieno@cgiar.org

P3-2 NCEP Conservation Teaching and Learning **Studios: Building Capacity for Conservation** through Evidence-based Teaching and Learning

Kristin Douglas, American Museum of Natural History Center for Biodiversity and Conservation, kdouglas@amnh.org. Co-authors: Naday Gazit. American Museum of Natural History Center for Biodiversity and Conservation, ngazit@amnh.org; Ana Luz Porzecanski, American Museum of Natural History Center for Biodiversity Conservation, alporze@amnh.org; Eleanor Sterling, American Museum of Natural History Center for Biodiversity and Conservation, sterling@amnh.org

P3-3 Impacts of Natural and Anthropogenic **Environmental Changes to the Middle Rio Grande** Riparian Landscape On Ysleta del Sur Pueblo's Ability To Sustain Cultural Identity and **Indigenous Way of Life**

Andrea L. Everett, University of Texas at El Paso, aleverett2@miners.utep.edu. Co-authors: Deana D. Pennington, University of Texas at El Paso; Thomas E. Gill, University of Texas at El Paso, tegill@utep.edu

P3-4 Food waste: increasing sustainability through collaboration

Sara Gomez, Tufts University, Sara.Gomez@tufts.edu

P3-5 Getting to the Root of the Problem: Botany Students turn Activist to Formulate Policy in **Favor of Native Plants**

Erika Holum, Eureka College, eholum13@eureka.edu

P3-6 Are Reef Experts' Values and Baselines Regarding the Florida Keys Reef Ecosystem **Influenced by Personal Background?**

Milton Muldrow, Jr., George Mason University, mmuldrow@masonlive.gmu.edu

P3-7 Teaching in the zone: Engaging students through place-based, interdisciplinary science and research at the Calhoun Critical Zone **Observatory**

Katherine O'Neill, Roanoke College, oneill@roanoke.edu

P3-8 How might attitudes and information influence behaviors?

Katharine Owens, University of Hartford, kowens@hartford.edu

P3-9 Exploring the Social, Cultural, and Health Impacts from Harmful Algal Blooms, Karenia brevis, on Personal-use Marine Resource Harvesters in Florida

Krystal L. Pree, Florida Agricultural & Mechanical University, krystal1.pree@famu.edu. Co-authors: Elijah Johnson, Florida Agricultural & Mechanical University, elijah.johnson@famu.edu; Theresa Goedeke, National Oceanic and Atmospheric Administration, theresa.goedeke@noaa.gov

P3-10 Sustainability Assessment Protocol & Politics: STARS vs. GRI

Iames D. Proctor. Lewis & Clark College. iproctor@lclark.edu

P3-11 ASARCO Demolition Fallout, A Post Study on Pb (Lead) Soil Concentrations and **Environmental Agents of Redistribution in El** Paso, Texas

Stephanie A. Robinson, University of Texas at El Paso, s.austin.robinson@gmail.com. Co-authors: Deana D. Pennington, University of Texas at El Paso, ddpennington@utep.edu; Jorge Gardea-Torresdey, University of Texas at El Paso, jgardea@utep.edu

P3-12 Water Quality Comparison Between Input and Output of Silver Lake

Brooke Thompson, Wesley College, brooke.thompson@email.weslev.edu, Co-author: Coauthor: Stephaine Stotts, Wesley College, Stephanie.Stotts@wesley.edu

P3-13 Sustainability and Policy: Teaching Students to "See" Governance Frameworks

Diana Watts, Trinity Washington University, wattsd@trinitydc.edu

P3-14 Japan's diplomacy over the nexus among energy, resource and environment

Masatoshi Yokota, Tokyo University of Science, glenvipol@yahoo.com

Session D

9:00am - 10:30am Ward Circle Building and SIS Building

D-1 Valuing Health and Climate Trade-offs: **Understanding Perceived and Modeled Trade-offs** in the Power Sector

Ward Circle Building, Room 101

- CHAIR: Brian Sergi, Carnegie Mellon University, bsergi@andrew.cmu.edu. Co-authors: Alexander Davis, Carnegie Mellon University; Ines Azevedo, Carnegie Mellon University *Understanding public perceptions of tradeoffs in* climate, health, and energy using discrete choice analysis
- Omar I. Asensio, UCLA, omar.asensio@ucla.edu. Coauthor: Magali Delmas, UCLA Institute of the Environment & Sustainability, Anderson School of Management Reducing CO2 Emissions with Energy Efficiency Labeling: A Quasi-Experiment
- Juan Moreno-Cruz, Georgia Institute of Technology, jmc3@gatech.edu. Co-author: Erik Johnson, Georgia **Institute of Technology** The environmental effects of electricity congestion

D-2 Transcending Disciplinary Approaches to **Education for Sustainable Human and Environmental Systems**

Ward Circle Building, Room 102

- CHAIR: Michael A. Reiter. Bethune-Cookman University, reiterm@cookman.edu Designing a Field Course for Interdisciplinary Engagement: The Early English Landscapes
- Steven A. Kolmes, University of Portland, kolmes@up.edu and William Focht, Oklahoma State University, will.focht@okstate.edu Education for Sustainability: Robust Framing and System Viability Assessment
- Kimberly D. S. Reiter, Stetson University, kreiter@stetson.edu Teaching Stonehenge through resolution of complexity

D-3 Climate Change

Ward Circle Building, Room 103

- CHAIR: Katja Biedenkopf, University of Leuven, katja.biedenkopf@soc.kuleuven.be European and US climate diplomacy - A comparative analysis
- Andrea M. Feldpausch-Parker, SUNY-ESF, anparker@esf.edu. Co-authors: Weston M. Eaton, Pennsylvania State University, wme107@psu.edu; Morey Burnham, SUNY-ESF, moburnha@esf.edu; Theresa Selfa, SUNY-ESF, tselfa@esf.edu; Clare Hinrichs, Pennsylvania State University, chinrichs@psu.edu Bioenergy experts and their imagined publics:

implications for sociotechnical practice and change

[continued]

FRIDAY, JUNE 10

- Elizabeth Rohring, NOAA National Sea Grant College Program and George Mason University, elizabeth.ban@ava.vale.edu. Co-authors: Karen Akerlof, George Mason University; Bill Rohring, George Mason University; Caroline Boules, George Mason University
 - The role of social consensus in climate change communication
- Caroline Boules, George Mason University, cboules@masonlive.gmu.edu. Co-authors: Karen Akerlof, George Mason University, kakerlof@gmu.edu; Elizabeth Rohring, NOAA National Sea Grant College Program/George Mason University, elizabeth.ban@ava.vale.edu: Bill Rohring, George Mason University, wrohring@gmu.edu Testing science, health and local impact frames for climate communication
- Phoebe C. Godfrev, UCONN, phoebe.godfrey@uconn.edu A Pedagogy of Heartfelt Hope in a Climate of Change and Potential Despair

D-4 Interdisciplinary Careers

Ward Circle Building, Room 104

- CHAIR: David Hassenzahl, Chico State University, dhassenzahl@gmail.com
- Kathleen Purvis-Roberts, Pitzer College, kpurvis@kecksci.claremont.edu
- Stephanie Kaza, University of Vermont, skaza@uvm.edu

D-5 [No Session]

D-6 Integrating Campus Sustainability in Operations, Education, and Research: What works (and what hasn't yet)

Ward Circle Building, Room 106

- CO-CHAIR: Timothy Lindstrom, University of Wisconsin-Madison, tlindstrom@wisc.edu
- CO-CHAIR: Thomas Bryan, University of Wisconsin-Madison, tbryan@wisc.edu Learning Through Eating: Bringing Campus Dining Services into the Undergraduate Classroom
- Matthew Worsham. University of Dayton Hanley Sustainability Institute, mworsham1@udayton.edu Addressing Campus Carbon Lock-in through the Living-Learning Lens
- Kata Dosa, University of Wisconsin-Madison Burgers Behind the Scenes: Introducing Supply Chains through an Authentic Campus Example
- Brittany Davis, Allegheny College, bdavis@allegheny.edu Food Waste in Campus Dining Halls

D-7 EPA's P3 Program Wants to Hear from YOU!

(Discussion Symposium) Ward Circle Building, Room 107

- CO-MODERATOR: Anne Sergeant, U.S. EPA, sergeant.anne@epa.gov
- CO-MODERATOR: Greg Lank, U.S. EPA, lank.gregory@epa.gov

D-8 Art and Science Collaborations at Biological **Field Stations**

Ward Circle Building, Room 113

- CHAIR: Elizabeth Demaray, Rutgers University, demaray@camden.rutgers.edu
- Lissy Goralnik, Oregon State University, lissy.goralnik@oregonstate.edu
- Ellie Irons, Rocky Mountain Biological Field Station, ellie@ellieirons.com The Rocky Mountain Biological Field Station
- Roberto Mighty, Emerson College, robertomighty@gmail.com The Harvard Forest LTER
- Alice Mcenerney Cook, Independent Artist, mcenerneycook@gmail.com The Virginia Coastal Reserve

D-9 Coasts and Watersheds

SIS Building, Room 102

- CHAIR: Daniel Shtob, University of Oregon, dshtob@uoregon.edu Fluid Boundaries: The Social Construction of Environmental Catastrophe in a Coastal Community
- Sonia H. Stephens, University of Central Florida, sonia.stephens@ucf.edu Making Sea Level Rise Risk Research Responsive to Community Needs
- Yukyan Lam, Johns Hopkins University, vukyan@jhu.edu. Co-authors: Prof. Peter Winch, Johns Hopkins University; Pamela Surkan, Johns Hopkins University; Fosiul Alam Nizame, International Center for Diarrheal Disease Research, Bangladesh Local understandings and potential solutions to soil and water salinity in Southwest Coastal Bangladesh
- Ruthanne Thompson, University of North Texas, rudi@unt.edu. Co-author: Victoria Serna, University of North Texas, vserna@dentonisd.org Effects of a Water Conservation Education Program on Water Use in Single-Family Homes in Dallas, Texas
- Kirsten Kinzer, UNC Wilmington, kkinzer@design.upenn.edu Watershed Council Impact on Land Use Change: An exploratory study of North Carolina

D-10 Using Virtual Reality Content to Generate Empathy for Climate Suffering

(Discussion Symposium) SIS Building, Room 120

- MODERATOR: Simon Nicholson, American University, simon.nicholson@american.edu
- **Paul Wapner**, American University, pwapner@american.edu
- Michael Thompson, Forum for Climate Engineering Assessment, michael@ceassessment.org
- Larry Engel, American University, larry.engel@gmail.com

D-11 Environmental Implications of the Impending Energy Revolution

(Discussion Symposium) SIS Building, Room 113

- MODERATOR: Joseph Greenblott, US Environmental Protection Agency, greenblott.joseph@epa.gov
- Samuel Bockenhauer, US Department of Energy, samuel.bockenhauer@hq.doe.gov
- **Dan Fiorino**, American University, dfiorino@american.edu

D-12 Innovations for Sustainability

SIS Building, Room 233

- CHAIR: Samuel Sellers, UNC Chapel Hill, spseller@live.unc.edu. Co-authors: Tony Mayer, UNC Chapel Hill; Maia Call, UNC Chapel Hill; Margit Bertalan, Clark Gray, UNC Chapel Hill; Elisabeth Nebie, UNC Chapel Hill; Diamond Ebanks, UNC Chapel Hill Socio-Environmental Drivers of Forest Change in Rural Uganda
- Rocky Rohwedder, Ecological Handprints, rocky.rohwedder@sonoma.edu Ecological Handprints: Breakthrough Innovations in the Developing World
- Ran Duan, Michigan State University, duanran420@gmail.com. Co-Authors: Pradnya Joshi, Michigan State University, joshipr1@msu.edu; Yadira Nieves, Michigan State University, ygnieves@gmail.com; Anthony Van Witsen, Michigan State University, tonyvanwitsen@gmail.com; Bruno Takahashi, Michigan State University, btakahas@msu.edu Eco-friendly or Economic? Examining the Reuse of Clothes and Shopping Bags Using the Value Belief Norm Theory
- Laura Piedra-Muñoz, University of Almería, Spain, lapiedra@ual.es. Co-authors: Emilio Galdeano-Gómez, University of Almería, Spain, galdeano@ual.es; José A. Aznar-Sánchez, University of Almería, Spain, jaznar@ual.es; Juan C. Pérez-Mesa, University of Almería, Spain, juancarl@ual.es Exploring synergies among agricultural sustainability dimensions: an empirical study on farming system in Almería (southeast Spain)

D-13 Water Systems

SIS Building, Room 333

- CHAIR: Peter Linquiti, George Washington University, linquiti@gwu.edu
- Marchant Wentworth, Wentworth Green Strategies, marchant_wentworth@msn.com
 History of the DC Sewer System
- Colin P. Casey, American University, cpcasey317@gmail.com. Co-authors: Karen Knee, American University; Jessica Balerna, American University Investigating the potential risk of hydraulic fracturing to water quality in the Potomac watershed
- Yehuda L. Klein, Brooklyn College, yklein@brooklyn.cuny.edu
 The Water-Energy Nexus in Regional and Urban Scale Consumption
- Seth Brown, Storm and Stream Solutions, LLC, seth.brown@stormandstream.com. Co-author: Celso Ferreira, George Mason University

 To Green or Not to Green: Simulating Incentive-based Dynamics for Green Stormwater Infrastructure Investment on Private Properties

Snack Break

10:30am – 10:45am *SIS Founders Room Lobby*

Session E

10:45am – 12:15pm
Ward Circle Building and SIS Building

E-1 A New Approach to Science, Technology, Engineering, and Mathematics Outreach in Climate Change, Energy, and Environmental Decision Making

Ward Circle Building, Room 101

- CO-CHAIR: Ines Azevedo, Carnegie Mellon University, iazevedo@cmu.edu
- **CO-CHAIR: Parth Vaishnav**, Carnegie Mellon University, parthv@cmu.edu
- Felipe Faria, Carnegie Mellon University, ffaria@andrew.cmu.edu. Co-author: Daniel Posen, Carnegie Mellon University A New Approach of Science, Technology, Engineering, and Mathematics Outreach in Climate Change, Energy, and Environmental Decision Making
- Kelly Klima, Carnegie Mellon University, kklima@andrew.cmu.edu and Alexander Davis, Carnegie Mellon University, ald1@andrew.cmu.edu. Co-Author: Xiyu Wang, Carnegie Mellon University, xiyuw@andrew.cmu.edu Obtaining a Retrospective Control Group: Long Term Impacts of SUCCEED
- Parth Vaishnav, Carnegie Mellon University, parthv@cmu.edu and Jeffrey Anderson, Carnegie Mellon University, jja1@andrew.cmu.edu SUCCEED - current status and future direction

E-2 Teaching about Animals in Environmental Studies: Collaboration across Disciplines, **Empathy across Species**

Ward Circle Building, Room 102

- CHAIR: Valerie S. Banschbach, Roanoke College, banschbach@roanoke.edu. Co-author: Marwood Larson-Harris, Roanoke College Connecting the study of animal cognition and emotion with ethical reasoning in the classroom
- Susan Caplow, University of Montevallo, scaplow@montevallo.edu. Co-author: Jennifer Thomsen, University of Montana A typology of environmental educators in animalthemed organizations and its implications for promoting pro-environmental behavior
- Robert Darst, University of Massachusetts Dartmouth, rdarst@umassd.edu. Co-author: Jane I. Dawson, Connecticut College "Eating Animals": Fostering Student Dialogue across Diverse Perspectives
- Teresa Lloro-Bidart, California State Polytechnic University, Pomona, tllor001@ucr.edu Are Eastern Fox Squirrels (Sciurus niger) 'good' or 'bad' for the greater Los Angeles, CA region? A Case Study Developed through the National Socio-Environmental Synthesis Center

E-3 Earth and Urban Systems

Ward Circle Building, Room 103

- CHAIR: Katherine O'Neill. Roanoke College. oneill@roanoke.edu. Co-author: Jessica M. Kleiss, Lewis & Clark College, jkleiss@lclark.edu Re-thinking global: How can environmental studies pedagogy benefit from an Earth systems science perspective?
- Sarah J. Becker, US Army Corps of Engineers, Sarah.J.Becker@usace.armv.mil. Co-authors: Michelle C. Hamilton, US Army Corps of Engineers. Michelle.C.Hamilton@usace.army.mil; Susan L. Lyon, US Army Corps of Engineers, Susan.L.Lyon@usace.army.mil; Heather A. Speight, US Army Corps of Engineers, Heather.A.Speight@usace.army.mil; Swathi Veeravalli, US Army Corps of Engineers, Swathi.Veeravalli@usace.armv.mil; Demetra E. Voyadgis, US Army Corps of Engineers, Demetra.E.Voyadgis@usace.army.mil; Jacqueline A. Wooddell, US Army Corps of Engineers. Jacqueline.A.Wooddell@usace.army.mil Environment-conflict relationship modeling at subnational scales using remotely sensed data: Bangladesh case study
- Joanna Wozniak-Brown, Doctoral Candidate, Department of Environmental Studies, Antioch University New England, iwozniak@antioch.edu Call for a New Climate Adaptation Approach: Case Study of Rural Character for Holistic Adaptation

[continued]

- Iose Pillich, CUNY Graduate Center, pillich@gmail.com. Co-author: Yehuda L. Klein, Brooklyn College, yklein@brooklyn.cuny.edu New York City: Understanding Urban Livability
- James M. Lipuma, New Jersey Institute of Technology (NJIT), lipuma@njit.edu Using Science, Technology, & Society (STS) Degree Program to Prepare Pre-Service Secondary School Science Educators in New Jersey

E-4 COP21 in the Classroom: Applying data from a "Virtual" field trip to student research

Ward Circle Building, Room 104

- CHAIR: Pia Kohler, Williams College, pia.m.kohler@williams.edu
- Emory Strawn, Williams College, eas3@williams.edu The Plight of the Polar Bear: A Climate Change Story
- Anne Tewksbury, Williams College, aet2@williams.edu Mitigation Ambition: Process and Outcomes of the COP21 Negotiations
- Skylar Smith, Williams College, sws2@williams.edu AOSIS at COP21: How can islands convince the powerful to help the vulnerable?
- DISCUSSANT: Jessica Templeton, London School of Economics, J.B.Templeton@lse.ac.uk

E-5 Security, Peacebuilding, and Environmental Change

Ward Circle Building, Room 105

- CHAIR: Peter J. Jacques, University of Central Florida, Peter.Jacques@ucf.edu Hidden Insecurities of Climate Change for Political Intelligence and Leadership
- Michael Carroll, The Holling Center for International Dialogue, michael.carroll@hollingscenter.org The Importance of Continuing International Dialogue on Environmental Issues in the MENA Region
- Michael D. Beevers, Dickenson College, beeversm@dickinson.edu Environmental Peacemaking: A Review of the Literature
- Sezin Iba, Kirklareli University, Turkey, seziniba@gmail.com. Co-author: Peter J. Jacques, University of Central Florida Climate Change Policy and Security Priorities for the Turkish Government
- Roger-Mark De Souza, The Woodrow Wilson Center, Roger-Mark.DeSouza@wilsoncenter.org The Role of Information and Institutions in Building Peace In the Midst of Climate and Fragility Risks

FRIDAY, JUNE 10

E-6 Explorations in Ecomusicology

Ward Circle Building, Room 106

- CHAIR: Laura Henry-Stone, Lynchburg College, henrystone.l@lynchburg.edu
 From Australia to Appalachia: Exploring the ecomusicology of artists Xavier Rudd and Rising Appalachia
- **Peter Buckland**, Penn State University, pdb118@psu.edu

 When all is lost: Thrash metal, dystopia, and ecopedagogy
- Graham Smith-White, The Sunrise Review, sunrisereview@gmail.com
 The Sunrise Review: Sustainability Practices in Professional Music

E-7 Perceptions of Climate

Ward Circle Building, Room 107

- CHAIR: Tania Ouariachi Peralta, Universidad de Granada, ouariachi@correo.ugr.es Innovative approaches to Climate Change Communication. The potential of online climate-related games
- Jamey L. Pavey, Earlham College, paveyja@earlham.edu "A Creative Look at Climate Change": A Museum Event as a Community-Based Learning Project in an Introductory Environmental Studies Course
- Thomas Safford, University New Hampshire, tom.safford@unh.edu. Co-author: Megan Henly, University New Hampshire, megan.henly@unh.edu Making Sense of Scientific Claims: How Belief Systems Shape Public Perceptions of Climate Change
- **Drew F. Bush**, McGill University, drew.bush@mail.mcgill.ca. Co-authors: Renee Sieber, McGill University, renee.sieber@mcgill.ca; Gale Seiler, Iowa State University, gseiler@iastate.edu; Mark Chandler, Columbia University, NASA-GISS, mac59@columbia.edu

 Inquiry Climate Change Teaching Using Classroom Adapted Technology to Impart Scientific Process Skills and Build Conceptual Understanding
- Patricia Hackbarth, www.SceneChanges.org, pathackbarth@earthlink.net
 NASA and the Environmental Humanities: Exploring the Lives of Landscapes

E-8 Regional Solutions

Ward Circle Building, Room 113

- CHAIR: Whitney Lash Marshall, SUNY- ESF, wglash@esf.edu
 Regional Conservation Systems: Bridging multiple scales of governance
- Daniel Ogbaharya, Western Illinois University, DG-Ogbaharya@wiu.edu
 Environmental Authoritarianism: Some Cases from Africa

[continued]

- Anil Bhargava, University of Michigan, anilbhar@gmail.com
 Effect of Soil Quality on Agricultural Returns and Input Use: Linking Remote-Sensing Land Data with Living Standards Surveys in Tanzania
- Andrew Bell, New York University, ab6176@nyu.edu. Co-author: Wei Zhang, IFPRI
 Payments crowd out coordination in ecosystem services provision: Evidence from behavioral experiments in Southeast Asia
- Colin Orians, Tufts University, Colin.Orians@tufts.edu. Co-authors: Selena Ahmed, Montana State University, selena.ahmed@montana.edu; Albert Robbat, Jr., Tufts University, Albert.Robbat@tufts.edu; Amanda L Kowalsick, Tufts University, Eric R. Scott, Tufts University, Eric.Scott@tufts.edu; Eric R. Scott, Tufts University, Sean.Cash@tufts.edu; Sean B. Cash, Tufts University, Sean.Cash@tufts.edu; Rebecca Boehm, rebecca.nemec@gmail.com; Timothy Griffin, Tufts University, Timothy.Griffin@tufts.edu; Rick Stepp, University of Florida, stepp@ufl.edu; Corene Matyas, University of Florida, matyas@ufl.edu Climate, tea and people: Impact of climate and herbivory on tea quality and farmer livelihoods

E-9 Business & Sustainability: Advancing Environmental Action Through Collaborative Business Partnerships

SIS Building, Room 102

- **CHAIR: Abby Lindsay**, American University, abby.lindsay@american.edu
- Diana Watts, Trinity Washington University, wattsd@trinitydc.edu
- Casey Troy, World Environment Center, ctroy@wec.org
- **Paul Wapner**, American University, pwapner@american.edu
- Jon Freedman, General Electric and American University, freedman@american.edu

E-10 [No Session]

E-11 Electric Localism: Policy Reform and the Evolution of Community-Scale Sustainable Energy

SIS Building, Room 113

- CHAIR: Leo A. Wiegman, Sustainable Westchester, Croton Energy Group Inc., leowiegman@crotonenergy.com
- Glenn Weinberg, Sustainable Westchester, Joule Assets, gweinberg@sustainablewestchester.org REV in Motion: Integrating Community Energy Initiatives in New York State
- Edward P. Yim, Government of the District of Columbia, edward.yim@dc.gov
 Neighborhood Energy and Future of the Grid

E-12 Forests, Farms and Conservation Areas

SIS Building, Room 233

- CHAIR: Sean McDonald, Planit Meetings, sean@planitmeetings.com
- Janice Liang, Colby College, jeliang@colby.edu. Coauthors: Travis Reynolds, Colby College, twreynol@colby.edu; Alemayehu Wassie, Bahir Dar University, alewas 2008@yahoo.com; Cathy Collins, Colby College, ccollins@colby.edu The Roles of Introduced Eucalyptus in the Conservation of Ethiopian Orthodox Church Forests
- Laura Piedra-Muñoz, University of Almería, Spain, lapiedra@ual.es. Co-authors: Emilio Galdeano-Gómez, University of Almería, Spain, galdeano@ual.es; Juan C. Pérez-Mesa, University of Almería, Spain, juancarl@ual.es Relationship between profitability and environmental
- Kristina Van Dexter, George Mason University, World Wildlife Fund, kvandext@gmu.edu Integrated forest governance for conservation and sustainable livelihoods

sustainability of family farms in Almería (Spain)

Travis W. Reynolds, Colby College, twreynol@colby.edu Orthodox church forests' ecological and institutional contributions to landscape conservation in northern Ethiopia

E-13 Sustainability Discourse

SIS Building, Room 333

- CHAIR: Tee L. Guidotti (Retired), George Washington University, tee.guidotti@gmail.com
- Shreejana Bhattarai, findshreejana@gmail.com. Coauthors: Madhukar Upadhya, madhukaru@gmail.com; Sanam Kumar Aksha, Virginia Polytechnic Institute and State University, sanam.aksha@gmail.com Assessment of the Impact of Climate Change on Livelihoods and Local Coping Strategies of Community of Western Nepal
- Robert Engelman, Worldwatch Institute, rengelman@worldwatch.org An International, Interdisciplinary Assessment of Research on Family Planning Links to Environmental Sustainability
- **Sarah Glasser**, ITHAKA, sarah.glasser@ithaka.org Working with Scholars to Facilitate Interdisciplinary Research in Sustainability, and Beyond
- **Dustin Mulvaney**, San Jose State University, dustin.mulvaney@sjsu.edu Why does STARS shine so bright? Exploring the standardization and codification of sustainability at U.S. institutions of higher education
- Ellen R. Campbell, NECi Superior Enzymes, ellenr@nitrate.com. Co-author: Bill Campbell, NECi **Superior Enzymes** Sustainable Science: Enzyme-based Analytical Chemisty plus Open Source Lab Equipment

Field Trips

12:20pm

Meet in SIS Atrium (under the sign for your trip)

Field trips will return in time to attend the Friday evening reception.

- T-1 Anacostia Historical Site Exploration
- T-2 American University Sustainability and Arboretum Tours and Discussion
- T-3 Billy Goat Trail Hike
- T-4 Washington, DC Urban Gardens
- T-5 Green Building Council (LEED coordinators)
- T-6 Sustainable Brewery Tour
- T-7 National Building Museum
- **T-8** National Gallery of Art
- T-9 Smithsonian Natural History Museum
- T-10 Smithsonian National Zoo
- T-11 Spring Valley Toxic Tour

Lunch

12:30pm

Off-Campus / On Your Own (unless otherwise communicated to trip participants)

Reception, Presentation of the Freudenburg Lifetime Achievement **Award**

5:30pm - 8:00pm

Smithsonian National Zoo, Elephant House Courtyard

Reception hosted by:

- Association for Environmental Studies and Sciences (AESS)
- National Council for Science and Environment (NCSE)
- Council of Environmental Deans and Directors (CEDD)
- Community College Alliance for Sustainability Education (CCASE)

Presentation of the Freudenburg Lifetime Achievement **Award** to **Dale Jamieson**, Chair of the Environmental Studies Department; Professor of Environmental Studies, Philosophy; Founding Director of Environmental Studies and Animal Studies, Affiliated Professor of Bioethics, Affiliated Professor of Law New York University

Saturday, June 11

Coffee and Pastries

8:30am – 9:30am SIS Founders Room Lobby

Session F

9:00am – 10:30am

Ward Circle Building and SIS Building

F-1 Building Empathy and Using Collaboration to Engage Non-majors in Learning Environmental Science

Ward Circle Building, Room 101

- CHAIR: Vikki L. Rodgers, Babson College, vrodgers@babson.edu
 A Collaborative Sustainability Project Uniting Social, Environmental and Economic Perspectives
- Anna Aguilera, Simmons College, anna.aguilera@simmons.edu
 Using Service Learning to go beyond the textbook
- Michael Daley, Lasell College, mdaley@lasell.edu Mv Town

F-2 Pedagogic Approaches to Teaching Climate Change – Multidisciplinary Strategies and Targeted Outcomes: A Focus on Ethics

Ward Circle Building, Room 102

- CHAIR: Gary Silverman, UNC Charlotte, gsilver1@uncc.edu
- **Peter Buckland**, Penn State University, pdb118@psu.edu *Toward Ecological Citizenship: Sensible Classroom Climate Debates*
- **Kenneth Shockley**, University at Buffalo SUNY, kes25@buffalo.edu

Towards a unified climate ethics pedagogy

- **Jean Leon Boucher**, George Mason University, jlb964@gmail.com

 Preparing the Emotional Ground: Climate Change,

 Transformative Learning, and Coming to Consciousness as Grieving Process
- Kristen Burkholder, kburkholder@stonehill.edu. Coauthor: Susan M. Mooney, Stonehill College Longitudinal study of the impacts of a climate change curriculum on undergraduate student attitudes, knowledge and action
- Mike Gunter, Rollins College, MGunter@rollins.edu
 Five Core Misunderstandings Surrounding Climate
 Change

F-3 Implications of Climate Solutions

Ward Circle Building, Room 103

- CO-CHAIRS: Christopher A. James, Regulatory
 Assistance Project, cjames@raponline.org and Robert
 Taylor, Energy Pathways, LLC bobtaylor1@me.com
 China Industrial Efficiency Programs Improve Energy
 Consumption And Save Money. Can They Also Improve
 Air Quality? Interdisciplinary Team Shows How
- Paul Wapner, American University, pwapner@american.edu
 Do We Face an Environmental "Crisis"? Time and Reflection in the Midst of Emergency
 - Vladimir Potashnikov, RANEPA, potashnikov.vu@gmail.com. Co-authors: Oleg Lugovoy, RANEPA; John A. "Skip" Laitner, Economic and Human Dimensions Research Associates Cost and Benefits of Deep Decarbonization in Russia: A Thought Experiment
- Andrey Polbin, RANEPA, apolbin@gmail.com. Coauthor: Oleg Lugovoy, RANEPA Prototype growth models with technology-rich characterization for GHG emission reduction policy evaluation
- Dan Scott Zachary, Johns Hopkins University, d.s.zachary@jhu.edu
 A general sustainability model for urban energy transitions

F-4 Climate Engineering 1

Ward Circle Building, Room 104

- CHAIR: Wil Burns, Forum for Climate Engineering Assessment, American University, wil@feronia.org
- **Simon Nicholson**, American University, simon.nicholson@american.edu

 International Governance Pathways for Climate
 Engineering
- Michael Maniates, Yale-NUS College, Singapore, michael.maniates@yale-nus.edu.sg
 Making Climate Engineering Inevitable: The Trinity of Despair
- Devin Judge-Lord, University of Wisconsin-Madison, JudgeLord@wisc.edu
 U.S. Domestic Politics of Climate Engineering

F-5 Critical Sustainability

Ward Circle Building, Room 105

- CO-CHAIR: Adrienne M. Cachelin, University of Utah, adrienne.cachelin@health.utah.edu
 Critical Sustainability and Food Justice
- CO-CHAIR: Jeff Rose, University of Utah, jeff.rose@utah.edu
 Critical Sustainability: An outline for a just and liveable future
 - Martha Richmond, Suffolk University, mrichmond@suffolk.edu Addressing Environmental Lead Contamination in Underserved Communities

[continued]

SATURDAY, JUNE 11

- Manisha Anantharaman, Saint Mary's College of California, ma20@stmarys-ca.edu The 'sustainability' of class relations in Bangalore, India
- Melissa Haeffner, Utah State University, melissahaeffner@gmail.com Critical approaches to the sustainable production of waterscapes: A hydrosocial perspective of a desert city's water development
- Andreas Kotsakis, Oxford Brookes University, akotsakis@brookes.ac.uk Critical Environmental Studies and Critical Legal Theory: Common Agendas and Daunting Obstacles
- Giovanna Di Chiro, Swarthmore College, gdichir2@swarthmore.edu Co-producing Community-based Sustainability in North Philadelphia

F-6 Seeing the Future for the Trees: Why Complexity Is Critical to Sustainability Science, Communication, and Action

(Discussion Symposium) Ward Circle Building, Room 106

- MODERATOR: Roger-Mark De Souza, The Woodrow Wilson Center, roger-mark.desouza@wilsoncenter.org
- David E. Blockstein. National Council for Science and the Environment, david@cedd.org
- Steven Gale, U.S. Global Development LAB, USAID, sgale@usaid.gov
- A. Tianna Scozzaro, Sierra Club, atianna.scozzaro@sierraclub.org
- Meaghan Parker, Woodrow Wilson Center, meaghan.parker@wilsoncenter.org

F-7 Indigenous and More Than Human **Perspectives**

Ward Circle Building, Room 107

- CHAIR: Stephen C. Trombulak, Middlebury School of the Environment, Middlebury College, trombulak@middlebury.edu. Co-authors: Jack M. Byrne, Middlebury College, jmbyrne@middlebury.edu; Catherine M. Ashcraft, University of New Hampshire, catherine.ashcraft@unh.edu Educating for Sustainability: design concepts for activelearning sustainability practicums
- Amy L. Gregg, Ball State University, algregg2@bsu.edu Community Engagement with Partnerships in Academia for Real World Experiences for College Students working with Environmental Organizations and Public Agencies
- Elvzabeth W. Engle. Penn State University. ewe5019@psu.edu. Co-authors: Susannah Barsom, Penn State University, sbarsom@engr.psu.edu; Lydia Vandenbergh, Penn State University, lbv10@psu.edu;

[continued]

Glenn Sterner, Penn State University, ges5098@psu.edu; Theodore R. Alter, Penn State University, tra2@psu.edu What About Creativity and Imagination?: An Exploration of Sustainability Meta-Competencies at Penn State University

Ien Fuller, Arizona State University, jen.fuller@asu.edu Empathy, Encouragement, and Engagement: Teaching students to engage in the policy process at an introductory level

F-8 Teaching, Knowledge, Action

Ward Circle Building, Room 113

- CHAIR: Debbie Kasper. Hiram College. kasperdv@hiram.edu Integrating Knowledge, Understanding, and Action in ESS Programs
- Sarah Surak, Salisbury University, smsurak@salisburv.edu The Power Dialog as a Collaborative Regional Capstone/Keystone Experience
- Kristy Howell, Johnson County Community College, khowel13@iccc.edu Community Based Research: Getting students involved in producing informed promotional materials for campus sustainability
- Emilie Stander, Raritan Valley Community College, emilie.stander@raritanval.edu Improving Student Learning Outcomes from Service Learning in Environmental Science Courses: The Value of Building Effective Partnerships with Community **Organizations**

F-9 More-than-Human Ethnographies: **Implications for Environmental Studies and Sciences**

SIS Building, Room 102

- CHAIR: Teresa Lloro-Bidart, California State Polytechnic University, Pomona, tllor001@ucr.edu Cute Acrobats or Tree Rats? A Multispecies Ethnography of Tree Sauirrels in California
- Kristen Van Hooreweghe, SUNY Potsdam, vanhookl@potsdam.edu Eco-ethnography and Nature's Agency: Understanding Environmental Change in New York City's Jamaica Bay Estuary
- **John Moran**, Stanford University, imoran@stanford.edu The Decorated Urchin: Biological Specimen Preparation as a Form of Multispecies Auto-ethnography
- Ingrid L. Nelson, University of Vermont, prof.ing.nel@gmail.com. Co-author: Citt Williams. Royal Melbourne Institute of Technology - RMIT University Sharks in Our Imaginarium: Ecology, Technology and Vitalism in the Digital Sphere

F-10 Sustaining in Nature

SIS Building, Room 120

- CHAIR: Nancy J. Manring, Ohio University, manring@ohio.edu Teaching in a World of Wounds: The Role of Empathy in Sustainability Education
- Soudabeh Hajahmadi, Najafabad Branch, Islamic Azad University, soudabe.hajahmadi@gmail.com Antibacterial Activity of Wool Fabrics Eco-Friendly Treated with Zataria multiflora Boiss. Extracts
- Seymour H. Sohmer, Smithsonian Institution, shsohmer@gmail.com. Co-author: Tiberius Jimbo, Forest Research Institute, Papua New Guinea, tjimbo@fri.pngfa.gov.pg The Diversity of the Genus Psychotria in Papua New Guinea
- Courtney Carlson, Haub School of Environment and Natural Resources, University of Wyoming, courtney.carlson@uwyo.edu The Gaze and the lens: Gender power asymmetries in nature and adventure photography

F-11 Waste Not

SIS Building, Room 113

- CHAIR: Diana Watts, Trinity Washington University, wattsd@trinitydc.edu
- Lisa A. Skumatz, SERA- Skumatz Economic Research Associates, Inc., skumatz@serainc.com, Co-author: Dana D'Souza, SERA- Skumatz Economic Research Associates, Inc., dsouza@serainc.com Mercury-Containing Thermostats - Population, Lifetimes, Decay, and Policy Implications: A Study in Several States
- Lisa A. Skumatz, SERA- Skumatz Economic Research Associates, Inc., skumatz@serainc.com. Co-author: Dana D'Souza, SERA- Skumatz Economic Research Associates, Inc., dsouza@serainc.com Identifying Best "Next Steps" to Reach Diversion & GHG Goals: What Do the Real Numbers Tell Us?
- Sya Buryn Kedzior, Towson University, skedzior@towson.edu Comparative Analysis of Polyethylene Bag Bans in Delhi and Washington D.C.
- Shobha Sriharan, Virginia State University, sriharan@vsu.edu Sustainable Environment: to Support Sustainable and Resilient Communities -Correlation between Demographics and Greenfields Development to map Brownfields in Richmond, Virginia

F-12 Learning Sustainability

SIS Building, Room 233

- CHAIR: Shizuka Hseih, Trinity Washington University, HseihS@trinitydc.edu
- Toddi Steelman, University of Saskatchewan, toddi.steelman@usask.ca Experiential, Community-based Learning and Sustainability Assessment: A Field Skills Course
- Toddi Steelman. University of Saskatchewan. toddi.steelman@usask.ca A Framework for Systematic Learning for Sustainability Science
- Leon-C. Malan, Colby-Sawyer College, lmalan@colbysawyer.edu. Co-author: Laura Alexander, Colby-Sawyer College, lalexander@colby-sawyer.edu Sustainable Learning Initiative: Fostering Campus and Community Partnerships
- Sam Whitehead, Concordia University Texas, samcwhitehead1977@gmail.com. Co-author: Mary Kay Johnston, Concordia University Texas Building Programs in Sustainability that Foster an "Intense Consciousness of Land"
- **Christopher Haines** Permadigms, cahaines1@verizon.net Economic Growth and Our Current Plight

F-13 A Line in the Sand: Approaches to Coastal **Sustainability**

SIS Building, Room 333

- CHAIR: Elizabeth Albert, St. John's University, alberte@stjohns.edu Strange Bedfellows in the Archipelago: A Multidisciplinary Approach to Environmental Engagement for First Year Seminar Students
- Edward P. Richards, LSU Law Center, richards@lsu.edu Establishing criteria for sustainable coastal development in the face of sea level rise
- Nina Lam, Louisiana State University, nlam@lsu.edu A Transdisciplinary Approach to Modeling Coastal Sustainability: The Case of Mississippi River Delta

Snack Break

10:30am - 11:00am SIS Founders Room Lobby

SATURDAY, JUNE 11

Session G

11:00am - 12:30pm Ward Circle Building and SIS Building

G-1 Global Food Security: Using Science, Humanities and the Media to Develop **Collaborative, Sustainable Solutions**

Ward Circle Building, Room 101

- CHAIR: Bryan McDonald, Penn State University, bryan.l.mcdonald@gmail.com Learning from Failure: An Examination of Unsuccessful Efforts to Establish International Food Reserves
- Beth Karlin, University of Southern California, bkarlin@usc.edu The Art and Science of Film and Food: An Emerging Agenda
- Richard Matthew, UC Irvine, rmatthew@uci.edu Rethinking the Water-Food-Energy-Climate Security Nexus

G-2 Pedagogic Approaches to Teaching Climate Change - Multidisciplinary Strategies and Targeted Outcomes: A Focus on Public Health and **Alternative Strategies**

Ward Circle Building, Room 102

- CHAIR: Susan M. Mooney, Stonehill College, smooney@stonehill.edu
- Kylie Bailin, Lafayette College, bailink@lafayette.edu Library collaboration on teaching climate change can improve students' ability to locate and evaluate relevant information
- Barbara Goldoftas, Clark University, bgoldoftas@gmail.com Teaching Climate Change in a Public Health Context
- Gary Silverman, UNC Charlotte, gsilver1@uncc.edu Building a Foundation in Understanding Health Aspects of Climate Change
- Tee L. Guidotti (Retired). George Washington University, tee.guidotti@gmail.com. Co-author: Elizabeth Iulia Friedman. University of California at San Diego

Teaching Climate Change From a Health Perspective

G-3 Global Water Perspectives: Ocean, Islands and Floodplains

Ward Circle Building, Room 103

- CHAIR: Lauren Kovach, American University. kovach3@gmail.com Waging war on the poor: A political ecology perspective of flood risk in postcolonial Dar es Salaam
- Lvdia A. Lawhon. University of Colorado. lydia.lawhon@colorado.edu. Co-authors: Deserai A. Crow, University of Colorado Boulder, deserai.crow@colorado.edu; Elizabeth A. Albright, Duke University, elizabeth.albright@duke.edu The Legacy of the High Water Mark: Policy Lessons Learned from Colorado's 2013 Floods

[continued]

- **Terry Nipp**, AEGIS Agricultural and Environmental Geographic Information Systems, Ltd., TNipp.AEGIS@gmail.com. Co-authors: Odi Hauhouot Diambra, University of Guam; Chris Pangelinan, University of Guam Hearts and Minds: Collaborating Across Islands and Cultures Finding New Ways to Understand Climate Change in the Pacific and Caribbean
- Peter Neill, World Ocean Observatory, pneill@thew2o.net The Once and Future Ocean

G-4 Climate Engineering 2

Ward Circle Building, Room 104

- CHAIR: Devin Judge-Lord, University of Wisconsin-Madison, JudgeLord@wisc.edu
- Holly Buck, Cornell University, hjb84@cornell.edu California's Salton Sea: Lessons for geoengineering from an engineered landscape
- Alex Co, Yale School of Forestry and Environmental Studies, alex.co@yale.edu Creating Communications Ecosystems to Advance Climate Engineering Solutions
- Laura M. Hartman, University of Wisconsin-Oshkosh, hartmanl@uwosh.edu Playing God with the Climate: Geoengineering, Power, and Models of Agency

G-5 Population, Health and Environment: An **Integrative Concept in Addressing Sustainability**

Ward Circle Building, Room 105

- CHAIR: Robert Engelman, Worldwatch Institute, rengelman@worldwatch.org
- Kathleen Mogelgaard, World Resources Institute Hot, Hungry and Crowded: Integrating Population in College-level Education
- **Clive Mutunga**, US Agency for International Development, cmutungamuia@usaid.gov Population, Health and Environment Projects as Applied Integration and Education
- Vicky Markham, Center for Environment and Population, vmarkham@cepnet.org Population, Health and Environment in Public Education and Policy Advocacy
- Rosanna Marie Neil, Sustainable World Initiative, rneil@swinitiative.com Governance Issues in Population and Sustainable **Development**

G-6 Socio-Environmental Dialog

Ward Circle Building, Room 106

- CHAIR: Cynthia Wei, National Socio-Environmental Synthesis Center (SESYNC), cwei@sesync.org. Coauthors: Kimberley Landrigan, American Museum of Natural History Center for Biodiversity Conservation, kar@amnh.org; Ana Luz Porzecanski, American Museum of Natural History Center for Biodiversity, Conservationalporze@amnh.org Assessing Student Learning of Socio-Environmental Systems: Lessons from a Workshop
- Pranietha Mudliar, The Ohio State University, mudliar.1@osu.edu. Co-author: Tom Koontz, University of Washington-Tacoma, koontz31@uw.edu Ostrom's Design Principles and Socio-Cultural Heterogeneity
- Nirav S. Patel, Cornell University, nsp6@cornell.edu Increasing survey responses on sustainability, renewable energy, and environment using novel technological tool within youth participants
- Paul Hirsch, SUNY- ESF, pahirsch@esf.edu, Coauthors: Nicole Klenk, University of Toronto Scarborough, nicole.klenk@utoronto.ca; Whitney Lash Marshall, SUNY- ESF, wglash@esf.edu Dialog in the Context of Sustainability

G-7 Rethinking the Environment: Collaboration and Entanglement Across Cultures and Species

Ward Circle Building, Room 107

- CHAIR: Sean Furmage, American University, sean.furmage@american.edu "Rhino Wars": Empathy across Cultures and Species in Anti-Poaching Conservation Efforts
- Heather Pospisil, University of Saskatchewan, hep622@mail.usask.ca. Co-authors: Vikoria Hinz, University of Saskatchewan, vfh894@mail.usask.ca; Mary Jeanne Barrett, University of Saskatchewan, mj.barrett@usask.ca; Marie Lovrod, University of Saskatchewan, marie.lovrod@usask.ca Re-visioning Relations with Non-human Others: Intuitive Interspecies Communication, Identity and the Posthuman
- Sylvia Christine Almeida, Monash University, sylvia.almeida@monash.edu Building collaborative communities for Environmental and Sustainability Education
- Mary Jeanne Barrett, University of Saskatchewan, mj.barrett@usask.ca. Co-authors: Heather Pospisil, University of Saskatchewan; Viktoria Hinz, University of Saskatchewan, viktoria.hinz@usask.ca; Marie Lovrod, University of Saskatchewan Braiding knowledges: New(old) ground for inclusion and representation of Indigenous and more-than-human voices in natural resource management

G-8 Representing People and Places

Ward Circle Building, Room 113

- CHAIR: Thomas Walker, Director, Environmental Studies Program, Goucher College
- Ioanna Wozniak-Brown, Antioch University New England, jwozniak@antioch.edu Equitable Research within Rural Communities: Access and Representation
- Holly E. Peterson, Guilford College, petersonhe@guilford.edu. Co-authors: Joseph Witt, Middlebury College, jwitt@middlebury.edu; Stephen C Trombulak, Middlebury College, trombula@middlebury.edu Teaching about place: Interdisciplinary perspectives across geographical scales
- Leon-C. Malan, Colby-Sawyer College, lmalan@colbysawyer.edu. Co-author: Laura Alexander, Colby-Sawver College Building Sustainability: New Pedagogical Approaches for Complex Problems
- Melissa Ann Haeffner, Utah State University, melissahaeffner@gmail.com. Co-authors: Douglas Jackson-Smith, Utah State University, Doug.jacksonsmith@usu.edu; Martin Buchert, University of Utah, martin.buchert@utah.edu: Iordan Rislev. Utah State University, jris9985@gmail.com Differential access to environmental amenities and disamenities
- Krista Craven. Guilford College. cravenkl@guilford.edu Social and environmental justice in education: Bridging local and global scales

G-9 Human Faces vs Data Bases: Telling (and Selling) Stories About Science and Sustainability

(Discussion Symposium) SIS Building, Room 102

- CHAIR: Meaghan Parker, Woodrow Wilson Center, meaghan.parker@wilsoncenter.org
- Lisa Palmer, National Socio-Environmental Synthesis Center (SESYNC), lisaleschpalmer@gmail.com
- Dennis Dimick, National Geographic, ddimick@gmail.com
- Louise Lief, Science and the Media, llief@mediaandscience.org
- Priyali Sur, Freelance Journalist and Filmmaker, privalisur@gmail.com
- Michael Svodoba, George Washington University, msvoboda@gwu.edu

SATURDAY, JUNE 11

G-10 Conservation and Management of Natural Resources

SIS Building, Room 120

- CHAIR: George Busenberg, Soka University of America, gbusenberg@soka.edu National Monuments, National Parks, and the Evolution of American Conservation
- Peter Kimball Brewitt. Wofford College. brewittpk@wofford.edu Do the Fish Return? A Qualitative Assessment of Anadromous Pacific Salmonids' Upstream Movement After Dam Removal
- Garrett Wolf, The University of Manchester, garrett.wolf@postgrad.manchester.ac.uk Decolonization and Demodernization: Water Infrastructure, the Changing Culture of Water Use, and Challenges of Water Resources in Post-Soviet Urban Uzbekistan
- Elizabeth S. Vidon, SUNY-ESF, esvidon@esf.edu Why Wilderness? Alienation, authenticity, and the desire for nature: A case from the Adirondack Park

G-11 Waste and Water

SIS Building, Room 113

- CHAIR: Katharine Owens, University of Hartford, kowens@hartford.edu Talking trash: the influence of a marine debris servicelearning course on student attitude, behavior, and information
- Kenneth Shockley, University at Buffalo SUNY, kennethshocklev@gmail.com. Co-authors: Erin Robinson, Canisius College, robinso5@canisius.edu; Alan Rabideau, University at Buffalo - SUNY, rabideau@buffalo.edu *Integrating Perspectives: Rethinking the role of* stakeholder input in groundwater restoration from an interdisciplinary perspective
- M. Emmanuel Awohouedji, American University, ea7320a@student.american.edu Waste management and sustainable development in Subsaharan Africa
- **NK Chung**, Pace University/US Fulbright, nickesha.chung@fulbrightmail.org The Significance of Community Sensitization on managing community water supply within the HhoHho region of Swaziland
- Kirk S. Lawrence, St. Joseph's College, NY, klawrence@sjcny.edu Collaborating on Environmental Public Policy: Plastic Bags and Waterway Cleanup on Long Island, NY

G-12 Sociological Aspects of Environment SIS Building, Room 233

- CHAIR: Ran Duan, Michigan State University, duanran420@gmail.com. Co-author: Bruno Takahashi, Michigan State University, btakahas@msu.edu Latinos' Environmental Concern: The Role of Immigration Status and Acculturation
- Ana Isabel Baptista, The New School, baptista@newschool.edu Global Movement for Global Goods: Organizing a Trans-Local Movement for Environmental Justice
- Mohammed Rabbi, Valley Forge Military College, mrabbi@vfmac.edu Historical Perspectives of Climate Change and Human Conflicts
- Jean Leon Boucher, George Mason University, ILB964@gmail.com Culture, Carbon, and Climate Change: A Class Analysis of Climate Change Belief, Lifestyle Lock-in, and Personal Carbon Footprints

G-13 Role of Minority-Serving Institutions in **Engaging and Empowering Communities in Sustainable Water Resource Stewardship**

SIS Building, Room 333

- CHAIR: Kazuhiro Sonoda, Heritage University, sonoda_k@heritage.edu Cultivating industry partnerships to test new technology for sustainable farming practices in water stressed regions with first generation college students
- Jessica L. Black, Heritage University, black_j@heritage.edu Community-based undergraduate research as a mechanism for facilitating collaboration in response to a changing climate
- Pedro Chavarria, Northern New Mexico College, pedro.chavarria@nnmc.edu Engaging and Enhancing Water Resource Stewardship in Northern New Mexico

Lunch, Student and Presidential **Recognition Awards, Closing Keynote**

12:30pm - 2:30pm Mary Graydon Center, Rooms 2-5

Awards

Best Student Paper

Presenter: Beth Karlin, AESS Award Committee Chair, University of Southern California

President's Recognition Award for Educational and **Environmental Collaboration and Excellence** Presenter: John A. "Skip" Laitner, AESS President with recognition to:

Kimberly Reiter, Stetson University, and Michael **Reiter**, Bethune Cookman University, for their innovative "supradisciplinary" environmental field courses on the early English landscapes.

International Brotherhood of Electrical Workers Local 569 and the San Diego Chapter of the National **Electrical Contractors Association** for their joint operation and maintenance of the San Diego Electrical Training Center, and also their collaborative training of the skilled green workforce of the future.

Keynote

How We Became the Enemy: The Sociological and **Educational Origins of Our Environment Crisis**

James W. "Jim" Loewen, sociologist, historian, and author, Washington, DC

<u>Adjourn</u>

2:30pm

Exhibitors

AESS thanks all of our exhibitors. Please support them by visiting their displays, purchasing a book, picking up literature, and learning about their programs!

Location: School of International Service Building (SIS)

Founders Room Lobby

Hours: Thursday, June 9 Friday, June 10

8:30am - 5:00pm 8:00am - 12:30pm

American University | www.american.edu

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Cornell University Press | www.cornellpress.cornell.edu

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Ecotone, Inc. | www.ecotoneinc.com

IES Abroad | www.IESabroad.org

Johns Hopkins University Advanced Academic Programs | www.advanced.jhu.edu

John Wiley & Sons | www.wiley.com

JSTOR | www.jstor.org

James W. "Jim" Loewen, Sociologist, Historian, and Author

The University of Michigan School of Natural Resources & Environment | www.snre.umich.edu

Middlebury College, School of the Environment | www.middlebury.edu/environment

The MIT Press | www.mitpress.mit.edu

National Council for Science and the Environment (NCSE) | www.ncseonline.org

Physicians for Social Responsibility | www.psr.org

Project Create | www.projectcreatedc.org

Project Learning Tree | www.plt.org

Jeremy Rifkin, TIR Consulting Group LLC and Foundation on Economic Trends

Sage/CQ | www.capress.com

Springer Press Journal / Springer Nature | www.springer.com

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About AESS

AESS is an independent professional association in higher education designed to serve the needs of environmental scholars, scientists, students, and professionals who value interdisciplinary approaches to research, teaching, and problem-solving. Founded in 2008, the Association seeks to provide its members with the latest environmental information and tools to create better courses. strengthen research, develop more satisfying careers, harness the power of a collective voice for the profession, and enjoy each other's company at national and regional meetings.

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AESS provides identity, collective voice and continuing education for individuals in higher education engaged in environmental research, teaching, problem solving, and service to society.

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- creating a collegial process for networking, sharing ideas, publishing, and promoting interdisciplinary programs;
- developing professional standards and guidelines for environmental scholars and scientists;
- supporting the career development of AESS members;
- promoting research, discussion, and outreach that expands public knowledge about the environment and improves environmental science, policy, and management.



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Membership Duration	1 year	2 years	3 years
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AGI < \$50,000	\$60	\$100	\$160
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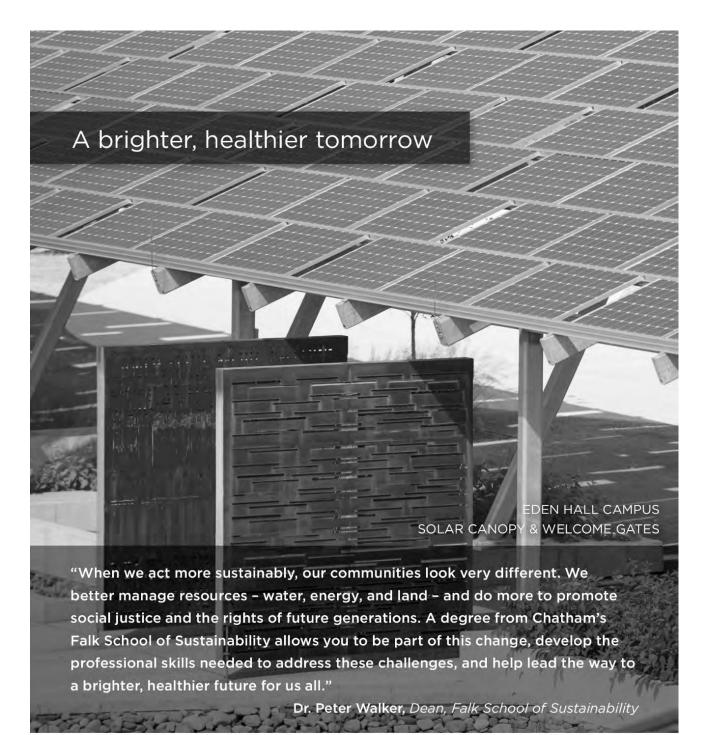
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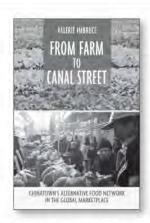
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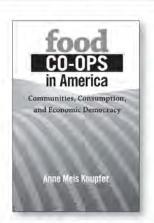
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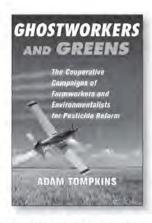
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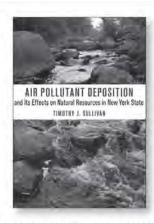
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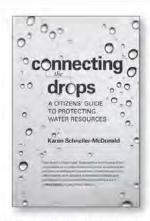
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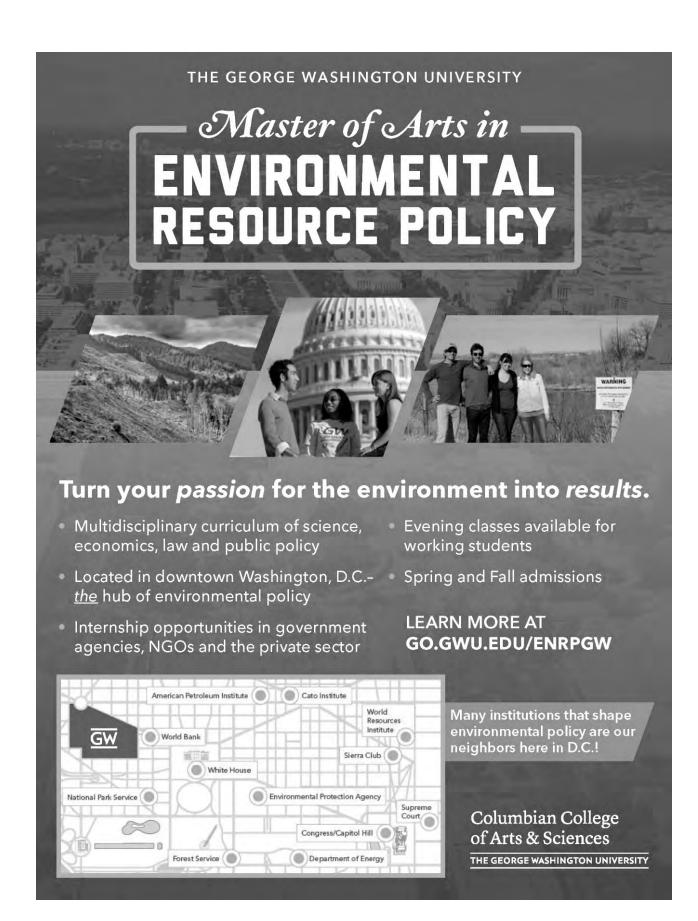
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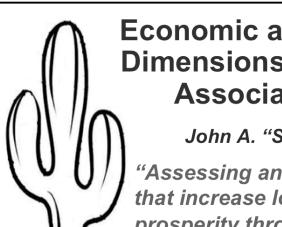
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