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We are excited to share with you another update regarding our ongoing efforts in the spaces of research, teaching and engagement in the public sphere. In newsletter #13, we share a sampling of our many ongoing activities.

As a key dimension of our ongoing efforts, we continue to work with University of Colorado (CU) students as we all deepen our understanding of how to effectively address issues associated with climate change. In the Spring semester that has just wrapped up, we worked with 84 students across three classes.

- Beth Osnes and Max Boykoff led the ‘Creative Climate Communications’ course (<https://sciencepolicy.colorado.edu/students/envs3173>) and worked with students to communicate about sustainable fashion, and to explore new communication pathways through humor and comedy;
- in our ‘Art of Science Communication’ course led by Rebecca Safran (with Erin Shauster), students pressed forward in building skills in visual storytelling, branding and translation of scientific ways of knowing and learning;
- in our ‘Environmental Communication’ course, Phaedra Pezzullo led students through examinations of historical events, key concepts, legal landmarks, and technological developments at the intersection of the environment, economics, and social justice.

In this critical period of time, we at Inside the Greenhouse remain committed to creative work to meet people where they are and to help make sense of 21st century climate challenges.

Your support is critical as we continue to carry out these projects, linking campus and community as well as the local with the global. Please visit <https://giving.cu.edu/fund/cires-inside-greenhouse-gift-fund> to provide a tax-deductible gift. Any amount helps.

Up with hope,
Beth Osnes, Phaedra Pezzullo, Rebecca Safran and Max Boykoff
(Inside the Greenhouse co-directors)

Support ITG!

To support our work with your donation go to:

<https://giving.cu.edu/fund/cires-inside-greenhouse-gift-fund>

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University of Colorado Boulder

Subscribers to ITG will be notified by email when a new edition is available, and may access it either in pdf or html format. The newsletter is also available online at:

<http://www.insidethegreenhouse.org/about/newsletters>

COURSE SPOTLIGHT

Art of Science Communication

The first version of the 'Art of Science Communication' was taught during the Spring 2019 term. This was a redesign of the former 'Climate Change and Film' class taught by Rebecca Safran since 2009. Rebecca and co-instructor Assistant Professor Erin Schauster designed a curriculum to integrate the science of climate change and practices of science communication with the research, practice

and execution of strategic communication (e.g., advertising and public relations). As the term has come to an end, the students put the finishing touches on their final projects, and showcased them during a finals week event. This final project included an application of all of the skill sets learned throughout the term: visual storytelling, branding, and translation of science to story for the development and production of a 2.5-minute short film. Final products will be posted on our ITG website this summer.

RESEARCH SPOTLIGHT

Youth Shine in Performance for Resilience

The article "Youth Shine in Performance for Resilience" by Inside the Greenhouse co-director, Beth Osnes, was published in a 2019 edition of the journal *Theatre Topics*. This research demonstrated the efficacy and value of using performance for including the contributions of adolescents, primarily ages 9-14, to their city's plan for resilience. It chronicled the tour of the Inside the Greenhouse mini-musical (<http://www.insidethegreenhouse.org/research/youth-shine-performance-resilience>), *Shine*, to cities participating in the Rockefeller Foundation 100 Resilient Cities Initiative. Lessons learned and recommendation gleaned from work with community partners and youth in cities across the world confirmed the value of engaging youth voices through creative climate communication for their city's plan for resilience.



July 2016 performance of Shine in Brookfield, Connecticut.

others shy away from applications of their work and avoid the "advocate" label. Through an exploratory survey of US-based natural and social science climate researchers/scholars and through analysis of interviews associated with our ITG and More than Scientists collaboration, we explored academic advocacy in a twenty-first century climate communications environment.

Evaluating the Perils and Promises of Academic Climate Advocacy

This research - published in the journal *Climatic Change* - is part of a Special Issue taking up the topic 'Practicing Everyday Climate Cultures' and was co-edited by Mike Goodman (University of Reading), Julie Doyle (University of Brighton) and Nathan Farrell (University of Bournemouth). Co-authored by Max Boykoff and David Oonk, we asked "What are the causes and consequences of academic climate advocacy in contemporary times?" and "Should it be celebrated and pursued, or derided and eschewed?" Our research then examined conditions whereby some in academic communities facilitate various forms of engagement relating to their research while



We found that there was broad agreement that climate change is a pressing issue, yet among social scientists, women are more likely to agree that advocacy should not be criticized than their male social scientist counterparts. We also found that younger respondents were more likely than older respondents to be compelled to change by advocacy from someone with a smaller carbon footprint. Meanwhile, we learned that social scientists were more likely than natural scientists to be compelled to change by someone with a smaller carbon footprint. The associated effect of age differences was stronger than the associated differences with profession. Together, we examined these dynamic conditions that animate advocacy opportunities and tensions in the context of contemporary climate change research and engagement. Through conflation between advocacy for evidence-based climate science and advocacy for particular policy outcomes (with coincident dangers of individualism and apolitical intellectualism), we found that there is still much more work to do here. Read more: <http://www.insidethegreenhouse.org/research/evaluating-perils-and-promises-academic-climate-advocacy>

STUDENT SPOTLIGHT

In each newsletter, we feature students – past and present – who have contributed to Inside the Greenhouse activities. This issue, we feature David Oonk, who is a PhD candidate in the ATLAS Institute (<https://www.colorado.edu/atlas>) at CU Boulder. David's research focuses on oil and gas development and policy in Colorado. He examines the dynamics and practices of horizontal drilling and 'fracking' technologies, the governance problems they create, and the role of science in assessing their risk and influence policy-making. To this he also has brought experience designing programs and conducting research in environmental science communication and education using visual media and art.



environmental stewardship. My research is currently exploring the newest technologies and methods of oil and gas extraction and how we govern their use. Often emerging novel technologies produce risks that build beneath the surface – out of sight and beyond our perception. Over time these invisible risks can build and manifest into hazardous events and deleterious effects. Barriers of perception result in barriers to action, and my work seeks to understand what these barriers are and if we can make decisions about these technologies in the near-term that are informed by the potential long-term ramifications.

Before pursuing my PhD, I earned a BFA in Film Studies and produced and screened experimental films at festivals in the US and other countries. Looking back now, I was interested in many of the same critical questions of environmentalism, science and technology that inform my current research. My interests are driven by a passion for art and science because they each offer avenues to understand and make sense of the perceptible and imperceptible world around us. Over the last several years I have worked closely with Max Boykoff, Beth Osnes, Patrick Chandler, Rebecca Safran and other ITG collaborators on a myriad of projects that align with my passions. I have had the pleasure to work with K-12 students producing climate change documentaries alongside CU undergraduate students and I have assisted in ITG events and courses and enjoyed exploring the student's stories and artistic endeavors."

David offers some comments and reflections on his experiences to date with Inside the Greenhouse. **In his own words:**

"Growing up in Colorado I have experienced first-hand the tensions between energy development and



Middle and high school students working on a documentary about the Colorado River and climate change as part of the Lens on Climate Change (LOCC) program. ITG and LOCC partner in furthering creative modes of climate communication.

EVENTS HIGHLIGHT

Stand up for Climate!

This Spring 2019 semester, Beth Osnes and Max Boykoff co-taught 'Creative Climate Communications'. This course (<https://sciencepolicy.colorado.edu/students/envs3173>) is cross-listed between the Environmental Studies program, the Department of Theatre and Dance, and the CU Boulder Atlas Institute. Patrick Chandler helped as our Teaching Assistant. The class projects through the term - Stand Up for Comedy and Trash the Runway (<http://www.insidethegreenhouse.org/project/trash-runway>) - stood out amid a productive and ambitious semester of reading discussions, guest visits, embodied work and other activities.

As part of the class, students (and Beth, Max and Patrick) stepped beyond video to embrace and confront multi-modal forms of creative climate communication by focusing on humor/comedy as a vehicle for creative climate communication. The culmination of this work was an experimental 'Stand Up for Climate' comedy night live performance on April 25th at the historic Old Main Theater on the CU campus (<http://www.insidethegreenhouse.org/node/3935>). The show was constructed through thirteen impressive stand-up acts and seven innovative skits. From a skit about Dr. Phil counseling couples and families whose lives are disrupted by overzealous composting to stand-up about veganism, the creativity on display blew the 150-person crowd (and the professors) away. The performances solicited authentic belly laughing throughout, while it



Students working in the classroom as part of the 'Creative Climate Communications' course in Spring 2019.

also advanced climate change discussions by tethering each act carefully to a *Project Drawdown* solution (<https://www.drawdown.org>). Also, winners of ITG's fourth annual International Comedy & Climate Change Video Competition (<http://www.insidethegreenhouse.org/node/3934>) were announced. See below in 'announcements' for more) were shown at the event.



Photo: Max Boykoff



Photo: Max Boykoff



Photo: David Oonk



Photo: David Oonk

EVENTS HIGHLIGHTS

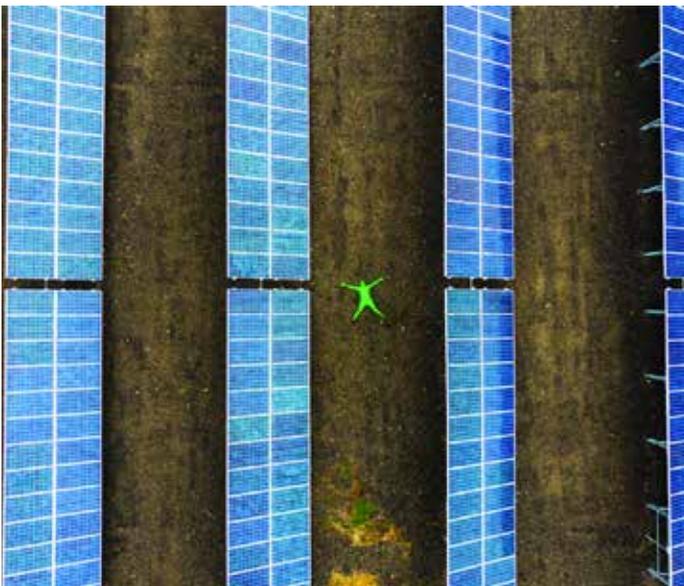
Green Suits BVSD (Boulder Valley School District)

Green Suits BVSD is a participatory photography project for youth that supports embodied expression of sustainability in action. Teachers from six different Boulder Valley School District (BVSD) middle and high schools each got a reusable grocery bag filled with full-body green suits of various sizes. Each teacher uniquely created an assignment in which their students take photos of themselves or their friends wearing these suits while enacting ways to act sustainably in and around their school.

To do this year-long project, Inside the Greenhouse collaborated with the Sustainability Director of Boulder Valley School District, University Corporation for

Atmospheric Research/National Center for Atmospheric Research (NCAR), and EcoArts Connections to coordinate Green Suits BVSD, which was a student competition across six participating Boulder middle and high schools in which students submitted photos, 80 of which are on exhibition at the National Center for Atmospheric Research in Boulder from April through October 2019.

Also, James Balog (renown nature photographer whose work was the subject of the film *Chasing Ice*) served as a judge for the competition. This project diversifies the manner by which students can effectively communicate their ideas and feelings towards various issues of sustainability. To guide the students in this work, they chose from the following categories: energy, transportation, waste, food, and nature/environment for their photographic composition.



"Keeping It Green, from a Bird's Perspective" by Michael Marquardt, Jesse Perez and Charley Sagrillo.



'Viewer of the Horizon,' by Addison Burnsed, McKenzie Jones and Charlotte Helgans.



Winners of the James Balog Award for Green Suits BVSD, Michael Marquardt and Jesse Perez with Beth Osnes.



Marda Kirn EcoArts Connections, Lisa Gardiner UCAR, Beth Osnes CU Inside the Greenhouse & Ghita Carroll BVSD Office of Sustainability.

ANNOUNCEMENTS

The 'ITG Awards'

This Spring, ITG announced their 2019 citizen award and their creative climate communicator award: <http://www.insidethegreenhouse.org/node/3930>.

Boulder resident and Youth Director of Earth Guardians Xiuhtezcatl Martinez earned our **Citizen Award**. Xiuhtezcatl is an indigenous climate activist, hip-hop artist, and powerful voice on the front lines of a global youth-led environmental movement. He has spoken at many high-profile events including the Rio+20 United Nations (UN) Summit in Rio de Janeiro and the UN General Assembly in New York city. Xiuhtezcatl has traveled across the nation and to many parts of the world educating his generation about the state of the planet they are inheriting and inspiring youth into action to protect the planet.



Max Thabiso Edkins, Climate Leader and Communications Officer for Connect4Climate, earned our **Creative Climate Communicator Award**. Born in Lesotho and raised between Lesotho, Germany and South Africa, Max then completed an undergraduate degree in natural science, conservation biology and economics and an MSc in environmental change and management from the University of Oxford. Max was doing path-breaking work with Connect4Climate in the World Bank until his untimely death in the Ethiopian air disaster on March 10, 2019. Max would have turned 36 years old on April 20.



ITG Comedy & Climate Video Competition

"Global warming, where does that stack up?" "Oh, God. Motha." "That's what I'm saying."

The winner of the 2019 international ITG Comedy & Climate Change Short Video Competition took on the personae of a comical Al Gore with a microphone, asking people in Brooklyn, New York, USA, what they fear the most.

Their answers didn't disappoint. They were honest and funny, helping us think about the ways we all imagine risk communication every day.

The second place winner from the UK was an excerpt of the film, "How (Not) To Talk About Climate Change," including insightful advice on how to talk about climate change, including listening to people about their own values (which may not be a fear of umbrellas, as we discover).

The third place winner was a community production of Climate Elvis, featuring a climate scientist as an Elvis impersonator, singing about how climate change compares to weather to the tune of Jailhouse Rock. Honorable mentions included an animated marker video on common modes of climate denial and "An Inconvenient Joke" among two dinosaurs.

As Osnes and Boykoff have posited, good-natured humor reminds us that laughter is a fabulous way to creatively communicate about climate change, hopefully opening up some unexpected connections and possibilities for a better future. With entries from three different countries, it was clear that many were ready to perform, sing, joke, and sarcastically work our way into climate action.

The winners this year were: 1st place: Rollie Williams & An Inconvenient Talk Show for "Al Gore: Man on the Street,"; 2nd place: Dr. Adam Levy, Geoff Marsh, and Dr. Adam Corner for "How (not) to talk about Climate Change"; 3rd place: Lizzie Gordon (Dir.) and Joh Willis, a NASA Climate Scientist and Elvis impersonator for "The Climate Rock."



ANNOUNCEMENTS

Fridays for the Future (& #FotosForFuture)

We at ITG have been inspired by the global actions of youth, particularly Swedish teen Greta Thunberg, for inspiring strikes and now the Extinction Rebellion in London. On April 20th, Costa Rican diplomat Christiana Figueres, who is the former Executive Secretary of the UN Framework Convention on Climate Change, tweeted in response to these direct actions: "Civil disobedience happens when the injustice gets too great. That is where we are."

Here in Boulder, ITG participated in the Youth Climate Strike on March 15th. There, among other politicians in support of the action, Representative Joe Neguse said he was "so inspired by the young people who gathered here today to send a signal and a message that they demand that their political leaders take a stand and ultimately move the needle on climate change" (<http://www.insidethegreenhouse.org/node/3686>).

Since, ITG has begun tweeting #FotosForFuture to celebrate forward-thinking, creative acts. Join us through Instagram to amplify these messages!



US Congressman Joe Neguse standing with inspiring Boulder youth, Niko Pezzullo Striphas and Luna Fierer at the Boulder Youth Climate Strike.

Ongoing Information-Sharing, Awards, Talks and Workshops

This spring, Inside the Greenhouse participants have led information-sharing and participatory workshops as well as giving talks and earning awards involving creative climate communications. Among them, this Spring 2019:

- co-director Phaedra Pezzullo was honored with the CU Boulder 2019 Green Sustainability Faculty Award for her work on and off campus for climate communication and a just transition;
- co-director Beth Osnes performed an original comedy piece, "A Date for Climate," for Colorado Public Radio (CPR) for their Climate Change Variety Hour that was presented at the Newman Center in Denver on April 8, 2019 and then broadcast on CPR on Earth Day April 22, 2019;
- co-director Max Boykoff discussed ITG work in various talks at Princeton University, London School of Economics, University of Valencia, New York University, University of Michigan and at the Kavli Symposium hosted by the World Federation of Science Journalists in Washington D.C.;
- co-director Becca Safran co-ran a Gordon Conference on Speciation in California, gave a departmental seminar at Harvard, and delivered a seminar at Uppsala University in Sweden.



Uppsala Sweden, demonstrators can be seen handing out information about climate disruption in downtown Uppsala, Sweden, April 2019.



A view of the Baltic Sea, outside Uppsala Sweden, April 2019.

Going forward, you can also follow us via Twitter (@ITG_Boulder),
Instagram ('everydayclimate') and Facebook:
<https://www.facebook.com/Inside-the-Greenhouse-at-CU-Boulder-1267256946701231>

More information can be found on our website:
<http://www.insidethegreenhouse.org>

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ABOUT US

Creative framing and storytelling of issues surrounding climate change through video, theatre, dance, and writing can connect a wider audience to the deep and pressing need to address climate change. Project leaders Max Boykoff (Associate Professor, Environmental Studies; CIRES Fellow), Rebecca Safran (Associate Professor, Ecology and Evolutionary Biology), Beth Osnes (Associate Professor, Department of Theater and Dance) and Phaedra Pezzullo (Associate Professor, Department of Communication) have

been producing events and classes over the past six years under the banner of the 'Inside the Greenhouse'. Support for this work catalyzes creative climate communication and builds capacity among CU Boulder undergraduate and graduate students in particular. Our efforts to engage our students, those working at the science-policy interface, and the public alike seek to help concerned make climate change meaningful in the lives of everyday people. Students are involved directly and collaboratively connecting work in the classroom to applied contexts.



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Online Version: <http://www.insidethegreenhouse.org/about/newsletters>

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