



# CRED Newsletter

December 2010

Center for Research on Environmental Decisions  
Columbia University

Volume 1, Issue 2

## Op-Ed from CRED Co-Director:

### Kenny Broad

#### Inside this issue:

Op-Ed from CRED Co-Director, Kenny Broad	1-2
Fall 2010 Presentation Highlights	3
CRED Outreach Through the Media	4-5
Events and programs of interest to CRED	6
Meet new CRED researchers	7
Fall 2010 Outreach Highlights	8
Inside CRED	9



At the heart of CRED research is the goal of better understanding the tortuously complex relationship that exists between the elements of *time* and *uncertainty* as they interact and influence decision-making. For the sake of conceptual and organizational clarity, we separate these components. However, **'uncertainty' may arguably be viewed as *de facto*** a statement of temporality; exemplified by the act of or obsession with the continual reinterpretation of past events (à la the field of history) or with predicting the future (inherent in the varied disciplines engaged in fortune telling, notably physics and economics). **We'd be hard pressed to pick a subject matter that competes with 'climate'** - from weather to climate change timescales - in terms of the inextricability of time and uncertainty.

The results of this interconnection have implications of academic interest, but more generally, this has real-world significance.

Past CRED research has shown both in the field and the lab that the strategic use of uncertainty associated with forecasts of future events occurs at a fully conscious level in the realm of competition for positions of relative power. Less understood are the unconscious - or at least rarely acknowledged - psychological and sociocultural mechanisms that mediate the influence of these factors; for example, our (uncertain) memory of past experiences (time) with our interpretation of seasonal forecasts (uncertainty), and how that may affect investments to mitigate future threats (time). Many of these slippery interactions are neatly summarized in terms such as *discount rate*. While parsimonious, these terms, however, belie the complexity and subjectivity of these ostensibly calculable objective measures... thus the *raison d'être* for CRED's existence.

Trying to understand how humans can better handle uncertainty is a new focus for NSF, or at least the explicit articulation of this goal and the relatively large investment in it is new. The role that uncertainty has played in shaping the history of humans is of course so central that it is often rendered invisible, certainly if one accepts the explanation that religions and mythology in general arose in response to the existential uncertainty that emerged in sync with self-awareness. And time is delineated and organized in relation to the rituals associated with these myths: festivals for planting, harvesting, new moons, *et cetera* - or to paraphrase the anthropologist, Evans-Pritchard: Time is socially determined. From a more recent widescreen view, as Ian Hacking illustrates in *The Taming of Chance* (1990), the social history of European society reveals a dramatic shift throughout the 19<sup>th</sup> century: From one that accepted the deterministic trajectory of everyday being to one that embraced the probabilistic nature of events. Thus the formal acknowledgement of chance led to mechanisms of control in the form of policies based upon rational reasoning, informed by the newly acknowledged laws of statistics.

CRED's work is pushing the limits of the rational approach to managing risk and the probabilistic nature of our actions. Early evidence from CRED's first few years demonstrates how people and small groups are *reactive* to different sorts of information and organizational processes. There is no compelling evidence in my opinion that there is a universal cognition of time that cannot be influenced, while there is increasing evidence that the 'natural' order of the climate system does have more immutable patterns. The challenge as we move forward is to understand how manipulations (e.g., Decision Architecture) - and I use the word in its most positive spirit - can spark *proactive* decisions. Proactive decision making, however, does not necessarily translate into socially or ecologically beneficial outcomes, thus we are quickly approaching the point at which rationality must enter the labyrinth of ethical frames that we all operate from. Or, to put it in terms of early 20<sup>th</sup> century sociological debate: is normal what is right and good

#### Save the Date:

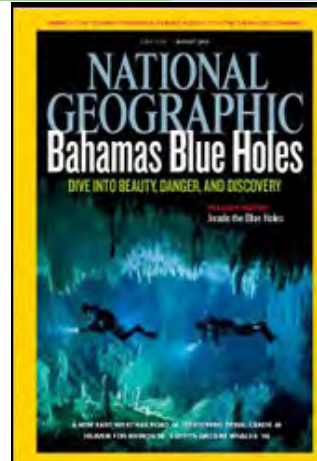
CRED Annual Meeting

May 2-3, 2011  
New York City

(Continued from page 1)

or is it what is mediocre and in need of improving? There is no clear roadmap for this exploration of the science of moral responsibility, and in fact, the evidence we have from past, morally driven science is one of mixed outcomes, with some horrific cases. How we at CRED navigate this terrain will be both instructive and hopefully, influential in what we produce in terms of facts, processes and principles.

Hacking, Ian. 1990. The Taming of Chance. Cambridge: Cambridge University Press, p. 266.



Check out Kenny Broad in the August 2010 issue of National Geographic Magazine



Photograph by Wes C. Skiles

His air bubbles forced down by the current in a blue hole on Abaco, Kenny Broad fights to the surface, a stalagmite under his arm. Divers must bring extra breathing gas when they'll have to struggle against a siphoning tide.

Source: <http://ngm.nationalgeographic.com/2010/08/bahamas-caves/skiles-photography>

# Fall 2010 Presentation Highlights



Derek Willis (left), George Zaidan (center), Shahzeen Attari (right)

## SciComm in the Internet Age

George Zaidan, host of [Pocket Science](#) and The Weather Channel's [Seasoned with Weather](#), presented at the CRED weekly seminar on Thursday, November 11th-communicating science and the on use of new media to transmit complex messages.

To view George's Pocket Science video on Shahzeen's work, visit:

[http://www.youtube.com/watch?v=VHGR\\_p3Jnas](http://www.youtube.com/watch?v=VHGR_p3Jnas)

## CRED researchers presented their findings at this year's Society for Judgment and Decision Making (SJDM) Conference in St. Louis, Missouri

Nov. 20-22, 2010- **CRED researchers at this year's SJDM Conference:** *(Click on links below to see abstracts online)*

David Hardisty, Shane Frederick, Elke U. Weber  
["I can't stand waiting!" Dread looms larger than pleasurable anticipation](#) (Presentation)

Jennifer M. Logg, Poonam Arora  
[Through the green looking glass: Attention and attitude influence environmental behaviors](#) (Poster)

Juliana Smith  
[The Impact Of Guilt On Risky Choice](#) (Poster)

Katherine J. Thompson, David J. Hardisty, David H. Krantz, Elke U. Weber  
[How to Measure Discount Rates? An experimental comparison of three methods](#) (Poster)

Kirstin Appelt & E. Tory Higgins  
[The choice is yours. but should it be? Assigning emphasis overcomes gain/loss asymmetries](#) (Poster)

Maria Konnikova, Bernd Figner, Walter Mischel, Elke U. Weber  
[When self-control hurts: Financial risk-taking, stress, and illusory control](#) (Presentation)

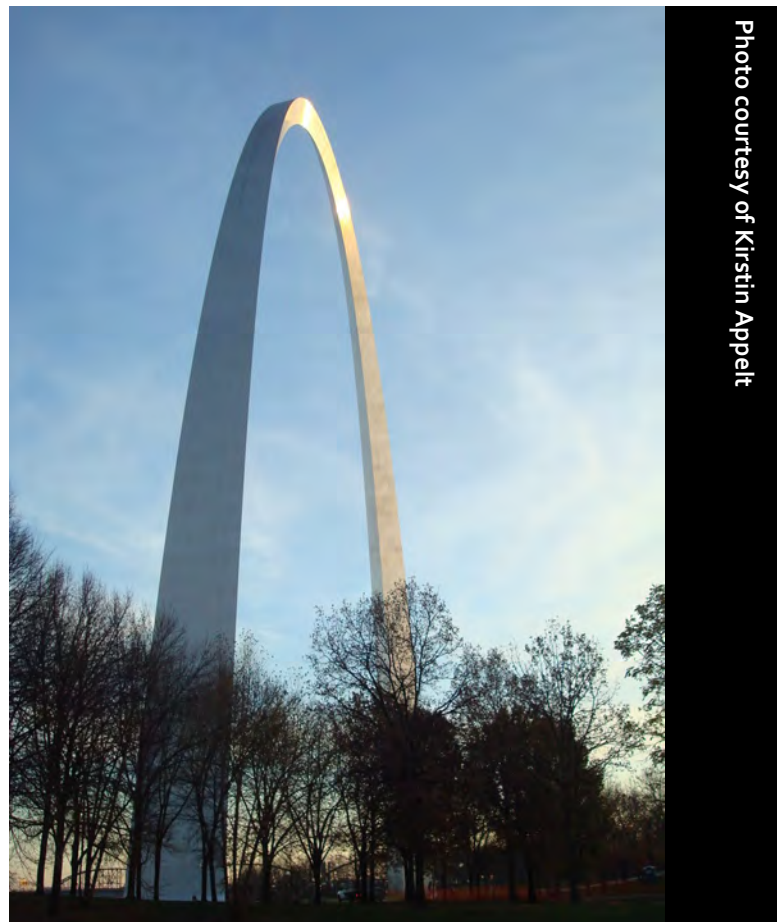


Photo courtesy of Kirstin Appelt



## CRED Outreach Through the Media

### NPR's Academic Minute

*Thanks to Kevin Krajick, senior science writer at the Earth Institute, for letting us know about this exciting opportunity:*

WAMC radio (upstate NY's main NPR station) has a new daily segment, *The Academic Minute*, syndicated to some 260 other stations nationwide. In it, researchers and academics present a brief spoken essay related to their field. We have been invited to propose individual segments, and hopefully develop some staff into regular contributors. Maybe one or more of you would be interested in doing segments.

It involves writing a very brief essay—250 to 300 words and recording it as a 60-90 second segment. The specs are: it presents one idea, immediately piquing interest and telling **listeners something they didn't know**. It can be specific or general; serious or whimsical; address current events, or ignore them. Some recent segments: research into human tears (from an electrical engineer); how election day came to be (from a political scientist); the growing interaction between children and technology (by a com-

puter scientist); why scientists struggle to explain themselves (from a physicist); and the persistence of myth in modern times (a professor of religious studies). The key is to convey one concrete idea through your own personal prism. In order to get the flavor, it is highly useful to review guidelines (below), and listen to a few existing segments. Program home page and archive: <http://www.academicminute.org>.

WAMC makes it easy; if the essay is accepted, we or they make the 1-minute recording at your convenience, and WAMC creates an intro, "outro," and web page for each segment. To pursue, draft an essay or two and see what they think. Initially, WAMC asks that these go through Kevin Krajick; but anyone who becomes a regular can work directly with them. This program is planned to run for months and years, and airs a segment every day, so this is an open-ended opportunity to personally reach a huge audience.

Please contact Victoria Rosoff at [victoria@ei.columbia.edu](mailto:victoria@ei.columbia.edu) if you would like to be featured on NPR's Academic Minute.

### Recent Installments

#### **Academic Minute**

##### Dr. Peter Black, SUNY

In today's Academic Minute, Dr. Peter Black of the SUNY College of Environmental Science and Forestry explains how experts calculate the amount of water in the global ecosystem.

##### Dr. Mia Mask, Vassar College

In today's Academic Minute, Dr. Mia Mask of Vassar College discusses the film career and legacy of actress Rosalind Cash.

##### Dr. Stuart Pimm, Duke University

In today's Academic Minute, Dr. Stuart Pimm of Duke University discusses the importance of locating new species before they disappear.

##### Prof. Ann DeMarle, Champlain College

In today's Academic Minute, Professor Ann DeMarle of Champlain College explores whether video games can promote creative solutions.

##### Prof. Celia Bland, Bard College

In today's Academic Minute, Professor Celia Bland of Bard College discusses her experiences teaching in the West Bank.

## GIGAPAN

In the Field



*Photo courtesy of Alex Fischer (CIESIN):* The above picture was taken in the Port-a-Piment watershed, Haiti, where CRED is working with the Haiti Regeneration Initiative (HRI). HRI is a joint project of various Earth Institute units and UNEP. Using a watershed approach the project aims to restore and sustain ecosystem and livelihood stability. Sabine Marx joined the research team last fall and is working on environmental risk perceptions, awareness, and behavior in order to help develop a communication strategy for the initiative.

GigaPan is an exciting new technology to enhance research and communication. GigaPan is both a mechanical and digital system that allows you to capture large panoramic views with acute detail and explore the resulting image with zooming features. The robotic camera mount captures 10's to 1,000's of individual pictures, each zoomed into a small area. These pictures can be easily assembled by the accompanying custom stitching software. Finished GigaPan panoramas are often uploaded to [www.gigapan.org](http://www.gigapan.org), where they can be shared, surveyed and discussed online.

You can peruse other's GigaPan panoramas on the website, including some taken on the Columbia campus and in Haiti by



CRED researchers (search: cred). The GigaPan system is very user-friendly and tutorials are available online.

If you would like to use CRED's GigaPan, a check-out form will be available online soon, so that all researchers can have the opportunity to bring this technology to the field.

## New Media for Presentations: Prezi.com

CRED Research Assistant and current Masters student in the Climate and Society Program, Jessica Schreiber, is currently developing an online education tool for CRED's Psychology of Climate Change Communication Guide. She is working on the third principle of the Guide- "Translating Scientific Data into Concrete Experience". Making use of Prezi.com, these materials will be available to the public online soon.

Prezi.com is a presentation tool that utilizes concept mapping and creative zooming to emphasize contextual relationships. The text, images, videos, etc. are placed on a single canvas, rather than on individual slides,



and then grouped together in frames. A path can be added to the frames or objects to give the ideas order. The program allows for great flexibility during the presentation – leaving and returning to the path is easy. The presentation can even be downloaded to be used without internet connection. A special license is available for teachers and students, extending their storage space and allowing the creation of private presentations. The software is both easy to learn and simple to use and the online tutorials are extremely helpful. For a sneak peek at Jessica's work so far, visit: [http://prezi.com/fea7cqa\\_yxpa/3-translate-scientific-data-into-concrete-experience/](http://prezi.com/fea7cqa_yxpa/3-translate-scientific-data-into-concrete-experience/)

## Events and programs of interest to CRED:

Thank you to Walter Baethgen, the newly selected Fulbright NEXUS Program Distinguished Leader, for e-mailing about the great opportunity below, open to those “early or mid-career academics, applied researchers and/or professionals with research experience in the public, non-profit, or private sector.”

Walter Baethgen selected as Fulbright NEXUS Program’s Distinguished Leader for 2011-2012 (State Department Press Release, November 5, 2010)

The U.S. Department of State is pleased to announce that Dr. Walter E. Baethgen, Director of the Latin America and the Caribbean Regional Program at the International Research Institute for Climate and Society (IRI) at Columbia University, has been selected as the Distinguished Leader for the 2011-2012 Fulbright NEXUS Program. Dr. Baethgen will provide leadership to a group of up to 20 Department of State-sponsored scholars from the Western Hemisphere, including the United States, who will spend one year addressing public policy challenges through international exchanges, seminars, and collaborative research. The scholars will focus on three primary areas: 1) Science, Technology and Innovation; 2) Entrepreneurship; and 3) Sustainable Energy. ...  
Launched in August 2010, the



Photo: Denver, Colorado (Source: <http://conference2011.wcrp-climate.org/>)

Fulbright NEXUS Program, with its primary focus on creating greater mutual understanding, supports U.S. foreign policy priorities by sharing best practices to fight poverty and encourage innovation in creative, market-driven and socially responsible ways. As Western Hemisphere nations take steps to work more closely on shared challenges, the Fulbright NEXUS Program offers a collaborative model for regional scholarly exchange that moves beyond theory. Program participants will explore public-policy research questions and involve governments, NGOs, businesses, and communities in the implementation of their projects.

The Fulbright Program, sponsored by the Department of State’s Bureau of Educational and Cultural Affairs, is the U.S. government’s flagship international exchange program and is supported by the people of the United States and partner countries around the world. Since 1946, the Fulbright Program has

provided more than 300,000 participants from over 155 countries with the opportunity to study, teach, conduct research, exchange ideas and contribute to finding solutions to shared international concerns.

---

The Fulbright Regional Network for Applied Research (NEXUS) Program will offer a collaborative model for regional scholarly exchange that will be multi-national, multi-disciplinary, and multi-sectoral in scope; it will encourage the formation of new networks of scholars, practitioners and applied researchers, thereby fostering concrete collaborative ventures with long-term regional impact. To learn more about the NEXUS Program, visit: <http://www.cies.org/NEXUS/>

### Thank you to Ben Orlove for the following information:

World Climate Research Programme  
Open Science Conference  
Climate Research in Service  
to Society  
October 24-28, 2011  
Denver, CO, USA

Goals and Vision: (From the WCRP website at <http://conference2011.wcrp-climate.org/>)

A better understanding of the behavior of the climate system and its interactions with other Earth system components is critical to predict its future evolution, reduce vulnerability to high impact weather and climate events, and sustain life. This need is perhaps greater than ever before given that humans have emerged as the dominant agent of future change.

Progress will require, moreover, an increasingly holistic approach across scientific disciplines, as well as an unprecedented commitment to the development of a diverse and talented future workforce. To advance its attack on such challenges, the WCRP will assemble for the first time ever its entire research community, and engage other key international research programs, in a major Open Science Conference (OSC) in October 2011. Through a unique synthesis of presented research findings, the OSC will assess our current state of knowledge on climate variability and change, identify the most urgent scientific issues and research challenges, and ascertain how the WCRP can best facilitate research and develop partnerships critical for progress.

#### IMPORTANT:

**Online registration begins**

**December 10th, 2010**



## Meet new CRED researchers:

### Visiting Scholar Profile: Seth Baum



Seth Baum is working with CRED as a Visiting Scholar from Penn State where he is working towards his PhD, advised by William Easterling in the Geography Department. Coming from a rural town, his favorite parts of living in NYC are the “express trains and sidewalk fruit stands.” At the University of Rochester he received Bachelor degrees in optics and applied mathematics, while minoring in French. He also earned a Masters in Electrical Engineering at Northeastern University concentrating on electromagnetics.

Currently, Seth is researching space-time discounting in the context of climate change and environmental decisions. His experience in an eclectic mix

of disciplines aids in fitting his work “into the broader context of academic research and the world/universe in general.” This aligns well with his general interest “in helping prevent human extinction so that Earth-originating civilization can colonize space before the world ends in a billion or so years.” Among other side projects, Seth works with Society for Risk Analysis and teaches an online undergraduate sustainability course. He anticipates that these projects might “be used to inform, among other things, policy and regulatory design, research priorities, and NGO activities.” Eventually, he would then like to continue to focus on interdisciplinary global catastrophic risk research, full time, at “a university, a think tank, a consulting firm, or possibly a government agency.” Seth’s work with CRED is scheduled to run through 2012.

See more about Seth, including his numerous publications, at his website: <http://sethbaum.com>.

### Graduate Student Profile: Raymond Crookes



Raymond Crookes joins the CRED team from Temple University, where he majored in Psychology focusing on cognitive science. He also attended classes at the Fox School of Business. When considering grad school, he was excited by the interdisciplinary style of Columbia’s Psychology department, hoping to integrate his business experience. Now working with **Elke Weber and David Krantz as advisors**, he’s currently researching the cultural and societal differences in decision making and how the feeling of obligation affects these decision making processes. “I really enjoy being here and being a part of multiple labs, each taking a different approach to solving problems.”

At CRED, he is looking forward to using decision

science with the natural sciences to work on local and international problems. Because he believes that psychology often misses opportunities for application, Raymond would like to see its use in addressing climate change – particularly in overcoming obstacles of global cooperation and agreement. **In terms of his research, he thinks “framing the discussion using feelings of obligation to future generations or poorer countries might be a way to overcome these barriers.”** He is also interested in how climate change is progressively becoming connected to health, and may like to look into this aspect of decision making. Eventually he hopes to become a professor and continue participating in multidisciplinary intellectual labs.

Because most of their family lives in Long Island or NYC, Raymond and his wife are happy to be living in the city. They love to explore the parks and fairs, trying to visit a new neighborhood whenever possible. They have “fully embraced the urban lifestyle” and appreciate being “within walking distance of almost anything.”

## Fall 2010 Outreach Highlights

**September 1<sup>st</sup>:** Elke Weber was invited to serve as an advisor to the Science Museum of Minnesota and CSPO's (Arizona State University's Consortium for Science, Policy and Outcomes) Climate of Uncertainty Project.

**September 1<sup>st</sup>:** Ben Orlove was interviewed by Alexandra Hunnings on Canadian Broadcasting Corporation's national daily current affairs show, *Connect with Mark Kelley*. They discussed why we are a "weather obsessed culture" in a story about checking weather online, the intrigue of massive storms and weather's role in small talk.

**September 15<sup>th</sup> / October 20<sup>th</sup>:** Victoria Rosoff, visited the High School for Environmental Studies to play "To Pollute or Not to Pollute," a CRED game simulating the tragedy of the commons, with a sophomore/junior level science course. In October, CRED visiting scholar, Seth Baum, presented his research and work at CRED to a group of sophomores, juniors and seniors at the High School for Environmental Studies.

**October 2<sup>nd</sup>:** CRED participated in the Lamont-Doherty Open House. Visitors to the CRED tent could play an interactive decision-making game and learn more about the psychology of climate change communication. Sabine Marx, Victoria Rosoff, Jenn Logg, Katherine Thompson, Lisa Zaval, Jessica Schreiber, Troy Simpson, Bob Filbin, Galen Treuer, Eugene Viderman, and Edward Hall were all there to help visitors both play the environmental decision-making simulation and to learn more about CRED's research. (Photo to the right shows the dishwashing simulation used at this year's Lamont Open House)



**October 10<sup>th</sup>:** Victoria Rosoff presented as part of a panel focusing on different ways to talk to the public about climate science, at UCAR's 2010 Annual Meeting, marking the end of UCAR's 50th Anniversary year of celebration, in Boulder, Colorado.

**November 14<sup>th</sup>:** At the Columbia Neuroscience Society's Fifth Annual Research Symposium, Jenn Logg and Raymond Crookes showcased the CRED lab and introduced possible research and job opportunities to Columbia and Barnard undergraduate students.

**November 16<sup>th</sup>:** David Krantz moderated the discussion on "Science and Society: IPCC Reform and the Global Climate Challenge." The event was hosted by the Columbia Climate Center, the Columbia-Paris Alliance Program, the Institute for International Relations and Sustainable Development and the Columbia School of International and Public Affairs.

**November 20<sup>th</sup> -22<sup>nd</sup>:** The Society for Judgment and Decision Making (SJDM) Conference in St. Louis, Missouri featured the research of David Hardisty, Elke Weber, Jenn Logg, Juliana Smith, Katherine Thompson, Kirstin Appelt, Maria Konnikova and Poonam Arora.

**November 22<sup>nd</sup>:** Roberta Balstad presided over the meeting, "Prospects for Climate Cooperation: A Cancun Summit Preview" at the Council on Foreign Relations.

**December 13<sup>th</sup>-17<sup>th</sup>:** Ben Orlove, Kenneth Broad, David Krantz, Sabine Marx, Katherine Thompson, and Bob Meyer participated in the 2010 American Geophysical Union (AGU) Fall Meeting in San Francisco, California.



## Inside CRED

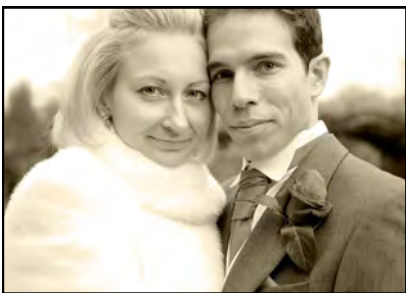


CRED congratulates Min Gong and her husband, Du, on their new baby girl!

Note from Min and Du:

Chian-Shin Du was born at 3:09 am on Oct. 9th, 2010, precisely on the due date. For those who are wondering what her name means, it is from an ancient Chinese poem, meaning:

Up and down the main streets, I must  
 have run—  
 A thousand times or more in quest of one,  
 Who I have concluded, cannot be found;  
 For, everywhere, no trace of her can be  
 seen,  
 When, all of a sudden, I turned about,  
**That's her, where lanterns are few and far**  
 between.



Former CRED postdoctoral researcher, Ganna Pogrebna, married Andrew Taylor on December, 4th, 2010 in Kenilworth, England.

Congratulations, Ganna!



Finalist Robert (Bob) Filbin (left) with Ecover CEO Mick Bremans (right)

CRED Research Assistant and current Columbia Masters student in the Quantitative Methods in the Social Sciences program at SIPA, Bob Filbin, was amongst the finalists for Ecover's 30 Under 30 Contest. (continued on back cover)



On November 27, Walter Baethgen the director of the Latin America and the Caribbean Program at the Earth Institute's International Research Institute for Climate and Society (IRI) was awarded the *Morosoli de Oro*, one of the most prestigious awards that can be bestowed upon a Uruguayan citizen. In receiving this honor, Baethgen now stands among eminent writers, poets, doctors and other luminaries recognized for their profound contributions to Uruguayan society. Past recipients include Eduardo Galeano, the internationally acclaimed author of *Open Veins of Latin America*. The acting President of Uruguay, Lucia Topolansky, is shown here presenting Baethgen with the award.

Read more at: <http://earth.columbia.edu/articles/view/2754>



**Coming soon**

**To the CRED**

**Website:**

### RA Corner

A webpage dedicated to highlighting and sharing selected works from CRED's talented research assistants.

Example of first piece to be posted:

CRED RA, Eugene Viderman, and his colleagues from the Climate and Society Masters Program produced the following video for CRED Co-Director Ben Orlove's course in the Masters Program:

["This is Trash..."](#)

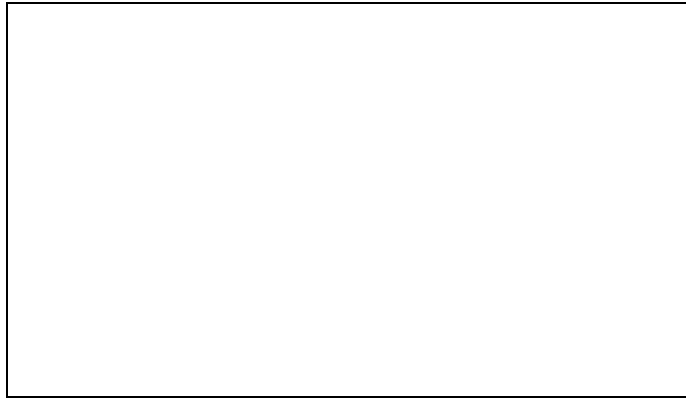
*Interested RAs should email contributions to [Victoria@ei.columbia.edu](mailto:Victoria@ei.columbia.edu). Submissions will be reviewed by the executive committee and those selected will be posted on the RA Corner of the CRED website.*



## Center for Research on Environmental Decisions

Columbia University  
419 Schermerhorn Hall  
1190 Amsterdam Avenue  
New York, NY 10027

Phone: 212-854-8780  
Fax: 212-854-3609



CRED is an interdisciplinary center that studies individual and group decision making under climate uncertainty and decision making in the face of environmental risk. CRED's objectives address the human responses to climate change and climate variability as well as improved communication and increased use of scientific information on climate variability and change. Located at Columbia University, CRED is affiliated with The Earth Institute and the Institute for Social and Economic Research and Policy (ISERP).

*CRED was established under the National Science Foundation Program Decision Making Under Uncertainty (DMUU). Major funding is provided under the cooperative agreement NSF SES-0345840 and NSF SES-0951516.*

(continued from page 9)

[Ecover develops and produces ecological washing and cleaning products made from plant based and mineral ingredients.](#) (Click on text to learn more about Ecover)

**“Ecover has been celebrating its 30 years as a sustainable-products leader by looking for 30 men and women under 30 years old who share and support our goals of a sustainable world.”** (Per Ecover website)

Read more about the Thirty Under 30 contest at:

<http://blog.sustainablog.org/ecover-cleaning-products-30-under-30/>



## Send in your updates for the next CRED newsletter!

Your stories could be featured in the next issue !

Please send your updates to Victoria Rosoff at :

[victoria@ei.columbia.edu](mailto:victoria@ei.columbia.edu)