



# GARRISON INSTITUTE

2013 CLIMATE, MIND AND BEHAVIOR SYMPOSIUM: SYNTHESIS REPORT

## Variation and Diversity in Sustainability and Climate Work



Enhancing the effectiveness of efforts to engage with individuals, organizations, communities, businesses and policymakers across the country

**2013 CLIMATE, MIND AND BEHAVIOR SYMPOSIUM: SYNTHESIS REPORT**



**CLIMATE, MIND AND BEHAVIOR PROGRAM** | [climatechange@garrisoninstitute.org](mailto:climatechange@garrisoninstitute.org)

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# Climate, Mind and Behavior

In June 2013 the Garrison Institute convened over 100 environmental nonprofit leaders, academic and independent researchers and others working on climate change and sustainability from across North America. The theme of the symposium was 'Variation and Diversity in Sustainability and Climate Work' with a goal of 'enhancing the effectiveness of efforts to engage with individuals, organizations, communities, businesses and policymakers across the country.' This report is the distillation of the learning that took place over the three-day meeting.

The magnitude of climate change and the timescales over which that change is already locked in is crippling: this is not a problem that can be fixed. Rather, like a long-term health issue, it must be managed if we are to continue living on this Earth.

That entire languages, cultures and species are extinguished daily by the continued onslaught of the dominant economic and consumptive model is not extractable from the climate issue. The fate of the world's myriad, diverse peoples, plants, animals, and ecosystems are doubly threatened by cultural and socio-economic hegemony and its corollary environmental disasters. Shifting to a zero carbon society is then necessary but not sufficient: we must also shift to meaningfully embrace cultural and biological diversity. In a society marked by specialism, reductionist thinking and the legacy of both neoclassical and neoliberal economics, the task is seemingly insurmountable.

Adequate change requires the connection of multiple scales and modes of action, including individual mindfulness, local community action, and global activism, in a way that creates community (in the broadest sense), empowers all, and respects diversity. Many forms of civic engagement are needed and many forms of organizational change are needed. So, rather than being crippled by the megalith of climate change, there is great hope to be found by addressing the multiple, specific issues that touch people's lives.

We have known that there is no one feasible 'fix' to the challenges posed by climate change, rather there are many ways of mitigating and adapting. What we have not been so explicit with is that working on climate change from the social and behavioral facet means we are working towards wellbeing for all in a brighter, healthier and more fulfilling future. We work towards this brighter future through existing social networks, finding and partnering with unlikely allies and ultimately by shifting broader cultural norms. Working towards a future marked by wellbeing means working towards a low carbon, less energy intensive future where fortified social networks enable the kinds of resilience that will be necessary to better weather extreme climate events.

A diverse toolkit has been assembled and is being deployed; staying positive is now critical. We can harness the power of storytellers and other artists to help us create a vision of the bright future that we are already working for.

This report synthesizes the presentations, discussions and written insights generated during the 2013 Climate, Mind and Behavior Symposium held June 10-12 at the Garrison Institute in Garrison, NY. The ideas presented herein arose from the community of symposium participants. The themes and bulleted points in this document are a synthesis of written and oral participant comments. We gratefully acknowledge the 2013 Symposium participants and their organizations:

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The views expressed herein do not necessarily reflect the views of the participating organizations. The Climate, Mind and Behavior Program of the Garrison Institute assumes full responsibility for any errors or omissions contained in this report.

# Shifting Culture through Community

*“Our work has really thrown up the importance of people’s social networks’ influence on decisions.”*

JANET STEPHENSEN, CENTRE FOR SUSTAINABILITY, UNIVERSITY OF OTAGO

While it is tempting to think of environmental decision-making and behavior change in individual terms, research suggests that it is rather the socio-cultural context that dominates behavioral decision-making. As social beings, humans are not extricable from such context. Culture and social structure constrain our ability to shift behavior in some ways while encouraging us to shift in other ways. Focusing behavior-change efforts on social-networks and working through established communities comprised of these networks is the most promising means of engaging people in climate change and sustainability issues to elicit behavioral shifts.

## CHALLENGES OF CULTURE

- A certain viewpoint should not be privileged as each of us has a viewpoint that limits our judgment.
- A cultural community is not necessarily place-based; people belong to many, overlapping communities that exist at multiple scales.
- Rampant, often subliminal, cultural hegemony and hubris disable authentic engagement with different cultural groups.
- Culture and social structure are, by their nature, durable, reinforcing, and averse to change.

## INSIGHTS ON CULTURE

- Meet people where they are, in their own language.
- Find culturally appropriate and meaningful links to climate change that support pro-environmental behavior changes.
- Diverse social networks concerned with environmental issues can form the basis for partnerships across government, community, business and industry.
- Politicians, and by extension the regulatory structure, react to cultural shifts.
- Leadership is integral to shifting social networks and their cultures; find the leaders.

*“Culture is the change agent.”*

BECKY FORD, CENTRE FOR SUSTAINABILITY, UNIVERSITY OF OTAGO



# Moving Beyond Consumption

*“We really do live in a consumer society... but we are transitioning from an era of conspicuous consumption to an era of mindful consumption.”*

MAURIE COHEN, SCIENCE, TECHNOLOGY, & SOCIETY, NEW JERSEY INSTITUTE OF TECHNOLOGY

Consumer culture results from an economic system dependent on continual growth. The dominant societal logic is premised and organized around consumption. While the troubling paradigm of neoclassical economics has long since been nuanced with behavioral understandings, its legacy continues to wield power in popular culture. Moving towards a post consumer society becomes easier to imagine when we consider the kinds of diversity already present in our economic system like co-operatives, organ transplant systems, or employee owned companies alongside a multitude of other, nascent, forms of collaboration. We can also learn from other cultures, such as indigenous cultures, with different means of transacting and valuing based on reciprocity and an internalization of what might otherwise be called environmental externalities.

*“Often what I hear is this either/or... either indigenous wisdom or the neoclassical model: but there is wisdom on both sides.”*

DEKILA CHUNGYALPA, WORLD WILDLIFE FUND

## CHALLENGES OF CONSUMPTION

- The legacy of neoclassical economics is its self-fulfilling prophecy: insatiability running up against scarcity of resources.
- Our economic system is inextricably tied to our social practices and supported by a tremendous policy infrastructure.
- The current system can't accommodate new forms of energy or energy efficiency software without carbon pricing.
- Working lives and hours need to be reduced to encourage more sustainable lifestyles.
- Debt obstructs emancipation from the consumption treadmill.

## INSIGHTS ON CONSUMPTION

- Consumptive behavior is not a biological predisposition, nor a medical or individual problem; it is a social and political construction.
- There is great diversity in our economic system and in indigenous and non-western economic systems, from which we can learn.
- Protection and production can go hand in hand.
- There is evidence that we are moving towards a post-consumer society.
- Localism is a social innovation that can support sustainable lifestyles.





# Valuing Diversity

Recognition of the diversity of cultures, worldviews, and life-ways in this country and throughout the world is a reminder that there is no one monolithic culture, no one way that humans know and live, and, therefore, that a shift to environmentally regenerative modes is possible. By valuing different perspectives and learning from one another, we can envisage new ways of being in the world. Cultures have always borrowed and blended, now is the time to harness such interaction to enable environmentally conscious culture shifts. Academic disciplinary cultures, the hegemony of scientific method, organizational cultures, government cultures and all the other spheres of influences within which we live and work must also find ways to value a diversity of other knowledge areas and ways of being.

*“Balance and harmony are not romantic notions, but millennia old design principals.”*

REBECCA ADAMSON, FIRST PEOPLES WORLDWIDE

## CHALLENGES OF DIVERSITY

- Consolidated power, hegemonic culture and monolithic thinking are real threats to diversity.
- While new communication technologies makes inter-cultural exchange seem easier, the context of historical colonialism and western cultural imperialism is complicating.
- Growing work across disciplines has been anathema to the traditional scientific system.
- Ethnocide has long been embraced in development policy here and abroad.

## INSIGHTS ON DIVERSITY

- Diversity is an asset for environmental work; diverse solutions are needed to all of today’s pressing problems.
- Deep listening and empathy are key to relationship building in general, and especially between diverse groups.
- Environmental sustainability is entwined with cultural sustainability.
- Radical inclusion means ensuring others not normally invited - such as business, industry, people of color, artists, indigenous people- are at the table.

*“Celebrating diversity is a corollary to a culture of abundance.”*

KAREN LITFIN, POLITICAL SCIENCE, UNIVERSITY OF WASHINGTON



# Finding Allies

Allying with groups beyond the traditional environmental partners has long been recognized as important, but there is considerable difficulty in reaching beyond well-wrought social networks into new spheres of influence. Find new allies through particular common issues; issues that negatively effect minority and underserved groups are often the 'canary in the coal mine' that point to larger institutional issues on which environmentalists can partner, making new allies in the process. Focusing on larger issues of concern to everyone- for example, concern for children's health both domestically and internationally- is a powerful means of bridging former divides. In many cases, a legitimated messenger will be the only means to partner with new groups, so finding the particular people who act as go-betweens is important. There will always be tension and conflict; so find and focus on places where there is agreement.

*“If you notice the institutions that aren’t working for people of color, the chances are good that they aren’t working for other people as well.”*

GERALD TORRES, SCHOOL OF LAW, UNIVERSITY OF TEXAS

## CHALLENGES OF PARTNERSHIP

- The polarized climate debates are a stable system of two groups opposed in reinforcing ways.
- Trust is difficult but critical.
- Preaching to the choir does not build alliances.
- Partnering requires going beyond well-wrought messages.
- Inclusivity does not come easily; it must be an explicit goal of any program.

## INSIGHTS ON PARTNERSHIP

- Destabilize polarization by building trust and engaging in a search for a common vision of a sustainable future.
- Everyone who breathes has an interest in the quality of the atmosphere.
- Children's health is a widely shared value that resonates with unlikely allies.
- Make explicit links to local issues and immediate impacts to families.
- The business sector is an ally for energy efficiency against fossil fuel power.

*“We’ll never be able to reach a consensus on addressing climate change without Evangelical and conservative voices.”*

MITCH HESCOX, EVANGELICAL ENVIRONMENTAL NETWORK



# Promoting Co-Benefits

*“People are frustrated and not able to see how to live a good life in the future.”*

**JOHANNA BRICKMAN, OREGON BUILT ENVIRONMENT & SUSTAINABLE TECHNOLOGIES CENTER**

Since behavior change is often easier when we embrace something, rather than avoid something, the climate change discussion needs to focus on the positive co-benefits of climate action. The message can be less about climate impacts and more about living a good life that reduces emissions in any case. This involves re-imagining the ‘American Dream’ where a good life involves having more time, helping, and sharing. A redefinition of the status-quo relationship with work and material goods is integral to the climate solution, and it can be less controversial. Who doesn’t want to work less, spend less and have more time to enjoy the outdoors in safe parks where neighbors meet? Focusing on a vision of health, healthy bodies, healthy communities, healthy planet is a means of forging a positive conversation without the doom and gloom of climate disaster.

## CHALLENGES AROUND MESSAGE AND VISION

- There is great psychological, temporal, and geographic distance from the worst effects of climate change.
- Western society currently lives to consume, other messages sound like deprivation.
- Behavior change is difficult if avoidance, rather than indulgence, is the object.
- Climate change is so politicized that to talk of it in certain groups is a farce.
- Climate disruptions will have negative impacts, saying otherwise is disingenuous.

## INSIGHTS AROUND MESSAGE AND VISION

- Think like Madison Ave!
- Focus on energy efficiency, cost savings, clean water, and clean air rather than argue about whether climate change is happening and human-made.
- Positive visions are psychologically critical.
- A positive vision of healthy communities is a powerful bridge to change.
- Start where the audience is and use their vocabulary.

*“Focusing on win-win sugar coats the issue.”*

**ELKE WEBER, CENTER FOR DECISION SCIENCES, COLUMBIA UNIVERSITY**



# Telling Stories

*“Storytellers change the world.”*

WADE DAVIS, NATIONAL GEOGRAPHIC SOCIETY

A necessary tool for change is to produce the capacity to see the world differently. Artists of all media are the guardians of this human capacity. Stories, told through text, video, paint, sculpture, dance or music- can act as catalysts for change. But the story alone is not enough; we need to connect behavior change to a vision of the future. To motivate behavior change people need to believe that their actions will make a difference. People want to get involved with good storytellers and good storytellers can use this by providing explicit and specific routes of engagement with their projects. Storytelling is also an intentional methodology for understanding how climate change affects individuals, communities and other species and in turn for building empathy, trust and partnership.

## CHALLENGES OF STORYTELLING

- Narrative should nuance, not displace, data.
- Different narratives appeal to different people, getting the story right is not straightforward.
- An emotive story does not equate to action.
- Personal and emotional stories are stigmatized in many academic disciplines.

## INSIGHTS ON STORYTELLING

- Artists are the wayfinders of our contemporary culture; they need to be brought into this conversation.
- Storytelling can effectively motivate activism and engagement.
- Storytelling is a powerful visioning tool when working with a community.
- The messenger must have legitimacy with the audience.

*“Storytelling, activism and engagement can combine to form a sea change.”*

BETH KARLIN, TRANSFORMATIONAL MEDIA LAB, UNIVERSITY OF CALIFORNIA, IRVINE



# Supporting Leadership

*“Politicians go in the direction the wind moves-  
so our job is to change the wind.”*

GERALD TORRES, SCHOOL OF LAW, UNIVERSITY OF TEXAS

There are multiple catalysts for change: an event, a risk, a process, but the commonality across these is leadership. Leadership identifies and seizes on a catalyst to forge change. In every situation and community and network there is leadership that initiates and stokes change - someone standing up saying things need to change. Part of our job is to ensure these leaders have the tools they need to enact change when a catalyst occurs. In this toolkit are the skills to bridge divides between disparate groups, skills to build community and networks of trust, and the knowledge needed to tackle specific salient issues posed by the catalyst. Our de facto leaders-elected officials and governments at all scales-may not react to demands of a small minority, but they do react to public opinion at large. The challenge of climate change leadership is then threefold: encouraging official authorities to engage with diverse stakeholders, building robust, adaptable toolkits ready for change leaders when a catalyst happens, and at the same time, shifting the culture at large to create the political mandate for change which supports all leaders to produce durable change.

## CHALLENGES OF LEADERSHIP

- The one-size-fits-all, command-and-control approach does not work for sustainability and behavior change engagement.
- Politicians-our would be leaders-no longer do what is right, but rather react to opinion polls.
- Technocratic solutions are often not implementable in a democratic society.
- There is often a lack of trust and confidence in official leaders.

## INSIGHTS ON LEADERSHIP

- Shifting culture shifts leadership and civic engagement creates democratic legitimacy.
- Local governments are well suited to directly engage with stakeholders.
- Power is not zero-sum; expand and devolve power to a larger network.
- Leadership can learn from community organizing-deliberation and trust building work.
- Leaders need to bring together conflicting groups and act as a bridge.

*“Building relationships, leveraging assets, and working collaboratively across stakeholder interests is not a rejection of regulatory authority, but an enrichment of it.”*

CARMEN SIRIANNI, SOCIOLOGY AND PUBLIC POLICY, BRANDEIS UNIVERSITY



# Selected Symposium Presentations

Watch Symposium videos online at [garrisoninstitute.org/cmbvideo2013](http://garrisoninstitute.org/cmbvideo2013)

## **ENOUGHNESS: RESTORING BALANCE TO THE ECONOMY** | *Rebecca Adamson, First Peoples Worldwide*

Civic innovations, especially at the urban and watershed levels over the past several decades, provide some important foundations for thinking about the active, problem-solving roles that citizens can play in mitigation of and adaptation to climate change. Adamson provides a few rich cases of civic participation and collaboration among nonprofit associations and public agencies (at various levels of the federal system in the U.S.), and then sketch some of the challenges of mitigation and adaptation that these might help address.

## **WHAT CLIMATE ACTIVISTS CAN LEARN FROM THE GAY RIGHTS MOVEMENT** | *Lisa Bennett, Writer & Communications Strategist*

A diverse movement if ever there was one, the gay and lesbian movement has been the most successful movement in recent American history. What lessons can sustainability and climate strategists learn from this model of success? This talk will present five surprisingly relevant lessons. Based on an analysis of the two movements, it will reveal that for individuals and communities, there are similar challenges to overcome. Both movements, for example, challenge a prevailing sense of what is natural—or accepted truth about how people are, or how the world works. Both movements confront dynamics of denial (in oneself and from others.) Both movements inspire fear and the common dynamic of fight or flight. And, it will be argued, both movements involve a similar trajectory toward effective change that includes breaking the silence or coming out on what, in the case of climate change, remains for many a taboo topic; building a spirit of hope and pride rather than doom and gloom; and rising above divisive debates by putting the focus on real people and the basic human connections among those who are or will be most affected.

## **UNSUSTAINABLE CONSUMPTION AND THE ADVENT OF NEW VALUES AND LIFESTYLES IN THE TRANSITION TO POST-CONSUMERISM** | *Maurie Cohen, Science, Technology, & Society, New Jersey Institute of Technology*

Variation and diversity of sustainability attitudes and practices are shaped by reactions to our dominant consumer culture and economic system. For nearly a century, explicit policy initiatives in the United States (and elsewhere to varying degrees) have encouraged lifestyles organized around suburbanization, automobile dependency, extensive material and energy throughput, and product obsolescence. These patterns have been amplified by ubiquitous advertising purposefully crafted to encourage status striving and ego gratification. A related driver of variation and diversity has been the prevailing economic system with an emphasis on continuous growth and disregard for ecological boundaries. Legitimation through neoclassical economics has comprehensively infused its underlying political philosophy into all facets of contemporary society. These commitments have propelled us closer to peak oil, exacerbated climate change, and provoked the financial “crisis” of 2007, while compounding societal inequalities. Concomitant veneration of a unique expression of the “American Dream” has led to dangerously high levels of public and private debt and created pronounced uncertainty about how to pay for healthcare, higher education, and retirement. This situation, in turn, has spurred excessive working hours (at least among the employed portion of the population) and incessant competition. Much of the variation and diversity surrounding sustainability that we see today can be attributed to these cultural and economic forces and to different individual and social responses to them. Of particular interest today are social experiments that enable people to sidestep—or more overtly avoid—participating in prevalent practices, such as the many collaborative forms of provisioning that we see taking root around the country. The agglomeration of these social innovations appears to be giving rise to nascent expressions of post-consumerism. Without understanding the wellsprings of these new commitments it is difficult to formulate meaningful policies to stimulate individuals and groups to consider more sustainable lifestyles.

**SHARING STORIES FROM CARBON NATION: OPTIMISM ABOUT OUR CLIMATE FUTURE | *Peter Byck, filmmaker***

Documentary director Peter Byck has been touring for 3 years, promoting his climate change solutions movie, carbon nation. Byck will talk about his conversations with Americans from all political stripes about clean energy, wasting energy, national & energy security. Byck is finding, one person at a time, that we are not a polarized country. When we actually listen to each other, difficult in today's hyped-up 24 hour news cycle, we find a great common ground – a vast area of agreement in the vital landscape of energy – how do we make it, who do we get it from, how clean do we want it and how well do we use it? The presentation will include time for the audience to share their own stories about experiences with renewable energy solutions, speaking with skeptics and finding common ground. As an example of stories we're looking for, Byck tells of one specific conversation with a conservative tea-party member – a man who is sure he will disagree with everything Byck has to say, simply by learning Byck's made a movie about climate change solutions. Byck and the conservative break down how they would run the country – how they would spend tax dollars. And both are shocked to realize that they agree on about 80% of the issues. They discover that we are not a polarized country – we're just being told over and over again that we are – and good people, from all over the country, are believing it and acting as if we are polarized. That's where the trouble begins. Byck is learning that we don't have to buy the bull – that we can really listen to folks with varying opinions and be amazed at how much common ground there is.

**THE WAYFINDERS - WHY ANCIENT WISDOM MATTERS IN THE MODERN WORLD | *Wade Davis, The National Geographic Society***

The Wayfinders is a celebration of the wonder of the human imagination as expressed in culture. We'll travel to Polynesia and celebrate the art of navigation that allowed the Wayfinders to infuse the entire Pacific Ocean with their imagination and genius. In the Amazon await the descendants of a true Lost Civilization, the People of the Anaconda, a complex of cultures inspired by mythological ancestors who even today dictate how humans must live in the forest. In the Andean Cordillera and the mountains

of the Sierra Nevada de Santa Marta of Colombia we'll discover that the Earth really is alive, pulsing, responsive in a thousand ways to the spiritual readiness of humankind. Dreamtime and the Songlines will lead to the melaleuca forests of Arnhem Land, as we seek to understand the subtle philosophy of the first humans to walk out of Africa, the Aboriginal peoples of Australia. In Nepal a stone path will take us to a door opening to reveal the radiant face of a wisdom hero, a Bodhisattva, Tsetsam Ani, a Buddhist nun who forty-five years ago entered lifelong retreat. The flight of a hornbill, like a cursive script of nature, will let us know that we have arrived at last amongst the nomadic Penan in the upland forests of Borneo. What ultimately we will discover on this journey will be our mission for the next century. There is a fire burning over the Earth, taking with it plants and animals, ancient skills and visionary wisdom. At risk is a vast archive of knowledge and expertise, a catalogue of the imagination, an oral and written language composed of the memories of countless elders and healers, warriors, farmers, fishermen, midwives, poets, and saints. In short, the artistic, intellectual, and spiritual expression of the full complexity and diversity of the human experience. Quelling this flame, and rediscovering a new appreciation for the diversity of the human spirit as expressed by culture, is among the central challenges of our times.

**WHY MAKING THE ROAD BY WALKING IT DOESN'T WORK IN BUSINESS (OR, HOW & WHY THE CLEAN TECH REVOLUTION IS FURTHER OUT THAN WE CAN AFFORD IT TO BE) | *Michel Gelobter, BuildingEnergy.com***

Two major factors point to the potential for a major revolution in energy efficiency. First, problems with information account for about 80% of the known barriers to widespread efficiency. Second, thanks to new sensors, the smart grid, and amazing software, we are in the midst of an unprecedented explosion in the availability of energy data. Unfortunately, it ain't happening. The clean tech sector has been a resounding disappointment, both in terms of driving massive new energy efficiency as well as large-scale adoption of renewables and a wide array of energy conservation and renewable energy options. The reasons for the lack of scaled outcomes have everything to do with the immaturity of the business processes underlying energy decisions. Contrasted to almost every other major business



## SYMPOSIUM PRESENTATIONS CONTINUED

process (sales, HR, finance, inventory, supply chain), energy use is in an almost pre-economic phase, where actors have almost no sense of how to prioritize actions on a common metric, like ROI. Absent clear guidelines for behaviors that drive energy efficiency (or, for that matter, renewables purchases), energy decision-makers at all scales will continue to adopt innovation slowly and at small scale. Only when the road to renewables and efficiency is well paved will we be able to walk it at scale and at the speeds necessary to address the climate energy crisis. What does this mean for action? First, policy will remain a cornerstone of the “road construction” necessary in the sector. Second, grassroots innovation has the potential to radically accelerate clean tech practice and should be encouraged at all levels. Barring that, the timeframes for change will be slower than we’d wish.

### **REACHING CONSERVATIVE AMERICA** | *Rev. Mitchell Hescox, Evangelical Environmental Network*

Evangelicals and Roman Catholics represent approximately 50% of the American populace, and the majority would self-identify as politically conservative. To date the solutions for creating a sustainable planet and minimizing the most severe climate impacts have focused on priorities not consistent with their values. For conservatives, initial attempts to address climate change came from the wrong direction. Unfortunately, too many pushed for government-based solutions as the first step. Instead, the best solutions engage all of America to understand climate change as a threat to our children’s health and our way of life. It is not enough to reach conservatives with science alone; change depends on existing faith and moral frameworks. Important values are children’s health (unborn and born), the potential harm on future generations, national security, and efficient limited government action. Solutions must include practical and meaningful individual engagement. The above approach, tested in over 400 presentations in churches, town halls, and Christian colleges around the nation, demonstrates transformation through existing values. Establishing a moral movement committed to overcoming climate change and sustainability is possible, but only through investment in values. The transformation of theologically and politically conservative Americans requires values-driven messaging by those who hold such values.

### **RE-THINKING “PLACE” AS A STRATEGY FOR CLIMATE ENGAGEMENT** | *Jennifer Hirsch, Sustainability and Diversity Specialist, Chicago*

For many years, the iconic image of climate change, and the alarm bell for climate action, was the lone polar bear standing precariously on a small chunk of ice. Over the past five years or so, that image has been marginalized, as experts in climate communication and engagement have successfully argued that it serves to distance people from the climate change issue rather than engage them, because it seems too separate from their everyday lives. In response, many researchers, communications experts, and practitioners have begun to advocate for a place-based approach on what is sometimes referred to as the “hyper-local”: narratives and images of climate change and climate action as it relates to people’s backyards. My research and engagement work on climate action in Chicago also points towards the importance of focusing on place—but in a different way. In this presentation, I will present findings from ethnographic research conducted in nine Chicago communities, and examples of my work building on that research to engage diverse populations in climate action, to begin to construct a broader model of place. The model I propose builds on what people care about to link the local to the local, the local to the regional, and the local to the global. I believe that this model has more potential not only to engage diverse U.S. populations in climate work, but to push that climate work in more creative directions.

### **THE ART AND SCIENCE OF FILM AND BEHAVIOR CHANGE: AN EMERGING AGENDA** | *Beth Karlin, Transformational Media Lab, University of California, Irvine*

Dozens, if not hundreds, of environmentally-focused films have been released over the past decade. Film is noted for its ability to emotionally engage viewers about important issues more than other mediums, yet moving viewers from affect (e.g. feeling something) to action (e.g. doing something) has proven more difficult. Films that seek action on the part of the viewer face more than the challenge of captivating the audience for the duration of the film; viewers must be motivated to follow through with suggestions present—whether it is to change a light bulb, sign a petition, or march on Capitol Hill. How can this be accomplished? How do environmentally focused films serve to educate, empower, and engage viewers as



well as to build capacity for systemic change? This talk will explore these questions, with a focus on both the medium of film itself as well as the multimedia campaigns in which such films are now embedded. Technologies such as streaming video, social media and network applications are leading to new forms of documentary creation, distribution, and outreach. This new breed of issue-based multimedia campaigns clearly has a role in inspiring and educating the public about important environmental issues, but its role, function, and impacts are still largely unknown. Film campaign strategies, impacts, and evaluation will be discussed in terms of both traditional and new media, with an eye towards exposing what we know, exploring what we don't, and leveraging our connections to maximize impact.

**THE LUXURY OF CHOICE** | *Daniel Katz, The Overbrook Foundation*

Writer and activist Daniel Katz of the OverBrook Foundation reflects on the conversations that took place at the 2013 Climate, Mind, & Behavior Symposium and offers insight on how to move forward.

**USING PERSUASIVE TECHNOLOGY TO PROMOTE SUSTAINABLE BEHAVIOR** | *Cees Midden, Human-Technology Interaction, Eindhoven University of Technology*

Sustainable living is to a large extent the outcome of how consumers use the technology surrounding them. Seen from this perspective the rather strict separation of technological and behavioral solutions is not only artificial but also detrimental to finding real sustainable solutions. The concept of persuasive technology refers to smart systems that influence users personalized and at the right moment and place making use of their interactive and adaptive capabilities. Based on a series of experimental studies I will show how persuasive technology can intervene in user-system interactions by using intelligent agents to change human attitudes and behavior. Artificial agents like robots and avatars go beyond the function of a simple tool by adopting social behaviors that allow for exerting social influence on human behavior. This raises the question of which factors cause the transformation

of an object into a social actor. I will discuss how the level of perceived social agency influences the attitudinal and behavioral effects of a persuasive intervention and which psychological processes are underlying these effects. Ambient Persuasive Technology can be employed to provide feedback that needs less cognitive resources, can persuade the user without receiving the user's conscious attention, and in general be more influential than more focal forms of persuasive technology. Various type of automatic processing in persuasive communication will be discussed. Sustainability is basically a social phenomenon. In that context, I will show that persuasive technology is not only able to influence the behavior of individuals but also of groups among others by providing various types of feedback on the group level.

**HARNESSING THE POWER OF PEERS FOR BEHAVIOR CHANGE** | *Tina Rosenberg, The New York Times Fixes column*

Peer pressure is usually thought of as a bad thing, but this presentation shows how it can be equally powerful when employed for good. People around the world have used positive peer pressure to bring about behavior change after more traditional attempts have failed. We can be healthier, more politically active and more environmentally responsible by tapping into the strongest of human motivations: our desire to belong to a group.

**CLIMATE PREPAREDNESS** | *Dan Schrag, Harvard University Center for the Environment*

A critical challenge in communicating and implementing resilience thinking lies not only in defining resilience in a practical way, but in recognizing the kinds of problems that are associated with building or encouraging the resilience of particular kinds of social and spatial systems, such as communities and cities. The first part of this presentation sketches out the proposition that understanding resilience as a "wicked problem"—a kind of challenge that is resistant to definitive resolution using methods drawn from science and engineering owing to manifold complexity, context dependence and social fragmentation—might prove helpful in appreciating the opportunities, strengths and limitations of resilience thinking and action in the urban context where

## SYMPOSIUM PRESENTATIONS CONTINUED

an “engineering resilience” frame is often the default setting. Seen from this perspective, resilience is not only a wicked problem, but a “wicked word.” The second part of the presentation moves from this rather abstract notion to the more concrete by showing how another widely-used wicked word—“community”—can provide us with clues about how resilience can be integrated more effectively in planning, policy, and common usage.

### **CIVIC INNOVATION AT THE URBAN AND WATERSHED LEVELS: SOME POTENTIAL LESSONS FOR CLIMATE ACTION** | *Carmen Sirianni, Sociology, Brandeis University*

Civic innovations, especially at the urban and watershed levels over the past several decades, provide some important foundations for thinking about the active, problem-solving roles that citizens can play in mitigation of and adaptation to climate change. I will provide a few rich cases of civic participation and collaboration among nonprofit associations and public agencies (at various levels of the federal system in the U.S.), and then sketch some of the challenges of mitigation and adaptation that these might help address.

### **INTERDISCIPLINARITY IN ACTION: ENERGY CULTURES AS A CONCEPT, A FRAMEWORK, AND AN ORGANIZING PRINCIPLE** | *Janet Stephenson, Rebecca Ford, & Sara Walton, Centre for Sustainability, University of Otago*

Achieving a transition from one set of energy-related behaviors to another is a highly complex process. From an Energy Cultures perspective, energy behavior is the outcome of interactions between people’s expectations about energy services, the technologies they use, and the practices they undertake. These are in turn are influenced by factors beyond their control such as policy settings, energy prices and social marketing. Achieving behavior change can be immensely difficult because of the tendency of these influences to support the status quo, and because of the heterogeneity in circumstances of energy users. The Energy Cultures team uses an interdisciplinary approach to investigate these interactions, and has developed the Energy Cultures framework to support this research. The framework has proved to be surprisingly fruitful, and our presentation will focus on

its three key functions as used in our research program: as a concept, a framework and an organizing principle. In our presentation we will sequentially build up an understanding of the Energy Cultures framework with audience participation. We firstly develop the concept of ‘energy culture’ as a culture-based understanding of behavior, which can assist with considering the heterogeneity of behavior in different contexts and at different scales. Secondly, we explore it as a framework for helping depict the interactions of key factors that influence energy behaviors, as well as helping identify opportunities for change. The framework also illustrates different interpretations of energy behavior. Thirdly, we will discuss how we have used the Energy Cultures framework as an organizing principle to help support interdisciplinary research.

### **THE CRITICAL LINK BETWEEN CULTURE SHIFTING AND RULE SHIFTING: CHANGING THE WIND** | *Gerald Torres, School of Law, University of Texas at Austin*

To paraphrase the Reverend Jim Wallis, you can’t change policy by replacing a politician who makes decisions based on the direction of the wind with another politician who does the same thing. Instead, you have to change the wind (Interview with Jim Wallis, *Speaking of Faith*, Dec. 1, 2007). A study of how durable legal change is produced reveals that for those interested in social change, it is useful to view lawmaking from the perspective of popular mobilizations and other sustained forms of collective action that make formal institutions, including those that regulate legal culture, more democratic. One of the important functions of law resides in its power to tell persuasive stories about individual fairness and social justice. The politics of sustainability in the face of required adaptation to climate instability is no different. Although legal actors and institutions are important to the creation of these narratives, social movements and organized constituencies of non-expert participants play an important role in the creation of authoritative interpretative communities that shape the discourse of law. Many believe that social movements are most effective when they translate their claims into law. Litigation and legislative action are seen as the most efficient way of achieving social change. Here, Torres is suggesting almost the reverse: for legal change to reflect real social change it must take account of, and



engage with, alternative or contending sources of power. By social change he wants to emphasize change that is democracy-enhancing. One component of such change is the creation of constituencies of accountability and alternative yet authoritative interpretative communities. These changes are democracy-enhancing because they give agency to those otherwise excluded or marginalized by the conventional legal structure of politics. Democracy-enhancing social change reminds us that genuine communities of consent are what justify democracy.

**ADVANTAGES OF LOCAL CLIMATE CHANGE FORECASTS AND FEEDBACK, WITH A COUPLE OF CAVEATS | Elke Weber, Center for Decision Sciences, Columbia University**

Climate change tends to be seen as an abstract and temporally distant threat, both features that decrease willingness to invest in adaptation or mitigation. Downscaling forecasts of climate change impacts to a local community scale (as, for example, in FEMA's new Flood Zone Maps) helps to make risks concrete and imaginable. Experiencing local impacts of climate change (e.g., greater frequency of extreme events, droughts, storm surges and flooding, etc.) has also been shown to increase willingness to take protective action at least temporarily, in part perhaps because personal experience is seen as a trustworthy source of information ("seeing is believing"). Local forecasts and personal experience of adverse climate change consequences are most likely to trigger protective actions, but consideration of mitigation may well emerge as the result of engaging in adaptation planning, making the two types of action complements rather than substitutes. Two caveats: (i) Local experience changes the minds of individuals whose minds are not made up on the issue, leading to evidence-based belief revision, but climate change deniers or alarmists tend to perceive such information in belief-motivated ways. (ii) Local weather abnormalities introduce distracting variability into people's beliefs about climate change and their willingness to take action ("local warming").

**WHY CONTEMPLATION/AWARENESS MATTERS TO CHANGE...AND HOW | Rev. angel Kyodo williams, Transformative Change**

Leading a series of sessions on meditation at the 2013 Climate, Mind & Behavior Symposium, Zen priest and writer Rev. angel Kyodo williams articulates the importance of contemplation in understanding and addressing today's most pressing social and environmental problems.

**EPA TOOLS FOR RESILIENT COMMUNITIES | Megan Susman, U.S. Environmental Protection Agency**

This presentation highlights the tools EPA is developing to help communities prepare for and adapt to climate change in ways that bring multiple environmental, economic, and community benefits.

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