

COCE 2013 Abstracts

Abstracts of papers within panel proposals, individually submitted papers, and of poster presentations are listed here arranged in alphabetical order using first authors' last name¹.

¹ Six Extended Abstracts are included in the Appendix according to first author names beginning on page 59 (Edwards, Farris-LaBar, Maillé, Senda-Cook, Storm, Walker).

Abstracts listed here are the ones received by the Scientific Committee and, as far as possible, we have matched them with what is in the Program booklet as presentations and posters. If authors find important errors, please get in contact with us (Hanna.Bergea@slu.se) and we will do our best to update this version.

Please note that we are not printing this compilation of abstracts for distribution in line with our 'greening of the conference' policy.

A

Cristián Alarcón

Linguistic and material turns and social-ecological relations: theorizing environmental communication

Attention to communication and discourse is a remarkable characteristic of 20th century social theory. Current crises of capitalism are generating a renewed interest in critical theory and historical materialism in the beginning of the 21st century. Along with those movements in social theory what we can identify as social-ecological research implies several new theoretical and normative questions. Within this context this paper focuses on the following theoretical goals: 1) to explore different conceptualizations of communication and discourse and theorize them along with theories of the environment and so to advance a theory of environmental communication under capitalism. 2) To justify the explanatory potential of such a theorization. 3) To bring the previous theorizing to the explanation of global forestry and forests/tree plantations conflicts. In exploring forests/plantations conflicts the paper offers a historical social-ecological approach to forest workers strikes in Chile and Sweden and peasants resistance to capitalist forestry worldwide.

Jenny Alexander

Greenwash Gold? Assessing the Environment-Themed Advertising of the 2012 Olympics Sponsors in the Context of the Olympic Communicative Commons

This paper reads London 2012 Olympic sponsors' environment-themed Olympic communications (advertising and corporate video), in particular those of Dow Chemical, British Petroleum (BP), Rio Tinto, Électricité de France (EDF), Coca Cola and British Airways. It takes a semiotic approach (Barthes, 1975, Berger, 1998 etc.) to look closely at the connotations and themes codified and signified in these high-profile corporate messages, on the stage of the global Olympiad. It considers these messages in their social and political environs, in relation to the broader context of environmental communications in the Olympic public sphere, with reference to literature on corporate "greenwash" (Beder, 2001; Lubbers, 2002; Holcomb, 2008, Greenberg and Graham, 2011 etc.) and environmental philosophies (Plumwood, 2001; Spretnak, 2011 etc). Olympic sponsors' "green" advertising is considered in the context of the 2012 Olympic "communicative commons", included mainstream and advertising press journalism, environmental protest and the environmental and philosophical themes embedded in the cultural displays of the opening and closing ceremonies of the Olympic and Paralympic Games. Emerging themes in the ads are: "the new Enlightenment"; "the future"; "optimism"; "technologism"; "progress".

Tadesse Amera & Nadarajah Sriskandarajah

An Ethic of Stewardship for responsible and safe management of pesticides in Ethiopian Agriculture

Widespread use of pesticides by mega-hectare farms and small holders in Ethiopia with little or no attention to the adverse effects of these products to human and environmental health demands special attention to mitigate the problem. One area of the Ethiopian Rift Valley is Arba Minch which produces cotton, a non-food crop, which takes a range of highly hazardous pesticides. Farmer Field Schools as a methodological tool has been attempted in this community in conjunction with Integrated Pest Management (IPM) as a practical approach to minimize high pesticide use and mitigate the hazards of pesticides. Our research examines the feasibility of the inculcating the ethic of stewardship across the pesticide delivery system in Ethiopia, the place of an action-oriented and a policy directed system-wide pesticide stewardship network as a network of key actors in addressing the pesticide problem. This paper would discuss the communicative, systemic, organizational and societal barriers that need to be overcome when facilitating social learning around the concept of pesticide stewardship at different points of the pesticide delivery system.

Ashley A. Anderson et al.

If they like you, they learn from you: How a weathercaster-delivered climate education segment is moderated by viewer evaluations of the weathercaster

Local TV weathercasters are a potentially promising source of climate education in that weather is the primary reason viewers watch local TV news, large segments of the public trust TV weathercasters as a source of information about global warming, and climate change is causing more extreme weather. In an online experiment conducted in two South Carolina cities (Greenville, $n = 394$, Columbia, $n = 352$) during and

immediately after a summer heat wave, we examined the effects on global warming perceptions of being exposed to a TV weathercast in which the weathercaster explained the heat wave as a dangerous local manifestation of global warming (versus being exposed to the 72-hour forecast). We found no main effect of the global warming video on learning. We did, however, find a significant interaction such that participants who evaluated the TV weathercaster more positively were positively influenced by the global warming video, and viewers who evaluated the weathercaster less positively were negatively influenced by the video.

Jonas Anshelm & Martin Hultman

Apocalyptic framing and conservative action. The cultural modes of climate change communicated in Swedish mass media 2006-2009.

In the early 2000s global warming was put high up on the political agenda. Some years, 2006-2009, even as an issue for human civilization. The Swedish Conservative Prime Minister Fredrik Reinfeldt said during this period that the climate change meant that the community was facing one of mankind's greatest decisions and it was Sweden's task to show leadership and take the lead. Our paper focus on how cultural modes of climate change were communicated in Swedish mass media during this period. This paper examines how the greenhouse effect was announced by leading politicians and commentators in circa 3500 editorials, opinion articles, political commentary as well as signed major feature articles and what actions they said the environmental problems demanded. Our results show how actors by five different discourses constructed the climate change as an environmental problem during this period, all with very different action to be taken when dealing with the issue.

Midori Aoyagi

The impact of media on public attitudes towards the environment: actors and institutions

We analyzed the impacts of mass media (newspaper and television) on opinion poll. We used monthly opinion poll data and media coverage data and using CCF function for analysis. Media coverage and response rate for the environment by monthly opinion poll in Japan rose since January 2007, and peaked in the summer of 2008, then went down quickly in the autumn of 2008, and rose again in 2009. Those changes are coincident with international and domestic political events such as release of Al Gore's movie, G8 summits, governmental announcement of GHG reduction target.

Seema Arora Jonsson

Discordant Connections: Gender and Grassroots Activism in Villages in India and Sweden

This presentation traces some of the contradictions and connections in how gender equality is conceptualised in women's struggles *vis á vis* environmental issues in rural Sweden and India. In Sweden where gender equality has been actively pursued as the bedrock of modern societal organizing, taking up questions of discrimination were considered extremely destructive in the struggle for local rights over the environment. Development discourses about equality and empowerment of oppressed third world women bear not only on how gender equality is conceptualised and practiced in the South but also shape the spaces for gender equality in the North. Analysing the two cases in relation to each other reveals the travel of ideas and conversations across distances. While ideas about the independent, empowered woman are used to deny agency to women's collectives in India, gendered discrimination has taken different forms in Sweden, making it more difficult to contest. Understanding how this takes place opens an opportunity for interruption in an order and in a space that appears to have become narrower under the umbrella of development, welfare, and growth.

Shinichiro Asayama & Atsushi Ishii

Framing climate negotiations: A discourse analysis of Japanese newspaper

In this study, we explore how the Japanese news media represent the third and fifteenth session of the Conference of the Parties (COP) to the United Nations Framework Convention on Climate Change, and try to identify the dominant media frames regarding the COP negotiations and political parties. In other words, our research questions are: What are the dominant or marginal frames in the news media coverage?; which political parties are dominantly or marginally quoted in the news media coverage?; and, what is the implication of media frames of COP coverage for public discourses? Our study found that the conflict frame is dominant

throughout the news media coverage. However, the comparison of the discourses in the coverage of the two COPs indicate a transformation of news media discourses in terms of responsibility of the developing countries towards climate change mitigation and the economic impacts of mitigation of climate change.

B

Paulami Banerjee

Joint Forest Management in India: A Case Study of East Sikkim, India

The adoption of Joint Forest Management (JFM) laid the foundations for decentralized, bottom-up approach to forest governance in India. Despite claims of creating successful linkages between everyday forest use by local communities, and the conservation goals of the states, studies have questioned the validity of such claims within JFM. Sikkim, one of India's richest states in forest resources, is home to several communities dependent on forests for their livelihoods. Despite an increase in forest cover since its adoption in 1998, JFM in Sikkim has failed to achieve sustained community interest and meaningful participation, and has done little to reduce conflicts between local communities and the government over forest use and management. This paper explores how collaborative management through the processes of facilitation and ongoing dialogue between government agencies and the locals, could help create an environment conducive to social and joint learning, leading to better management of forest resources.

Abdullahi S. Bashir, Ashong C. Ashong, & Herbert E. Batta

Influence of Journalistic and Organisational Norms on Nigerian Journalists' Engagement with Climate Change Issues

One of the major expectations of media information on climate change is to facilitate or promote engagement. This paper, therefore, examines the influence of journalistic and organisational norms on Nigerian journalists' engagement with climate change issues. Using survey as research technique, data were collected from a sample of 108 journalists from a population of 537 in the employ of the four selected newspaper firms in 2011. Results show that the journalists polled do not feel constrained by journalistic norms in their engagement with climate change, but organisational norms impinge significantly on their engagement with climate change issues as reporters. The study concludes, therefore, that the engagement of Nigerian journalists with climate change displays some inadequacies. The study recommends organisational restructuring, and more training opportunities for Nigerian journalists on climate change and its reportage as a way of improving their role regarding engagement with climate change.

Katelind Batill

Hydrofracking in the News: How Does Media's Coverage of Hydraulic Fracturing Shape Public Discourse about Emerging Energy Technologies in the U.S.

The news media often serves as a necessary bridge between emerging technologies and the general public. The form and language used by media outlets can significantly impact the public's interpretation of those technologies and how each individual may be directly and indirectly affected. In this project, we investigate the role that print media – namely regional newspaper publications in four specially selected states (Texas, Pennsylvania, New York, and Michigan) where hydraulic fracturing technology is present at varying levels of development in both the technical and political realms – plays in shaping public conversations. Using social function system theory operationalized through the Socio-Political Evaluation of Energy Deployment (SPEED) framework, we examine the economic, social, and political context surrounding hydrofracking as depicted through print news media to potentially illuminate why public conversation has been shaped the way it has, and why public perceptions can dramatically differ between states.

Herbert E. Batta, Ashong C. Ashong & Abdullahi S. Bashir

Press Coverage and Framing of Climate Change Issues in Nigeria: A Boost or Constraint for Participation Opportunities?

Nigeria faces a lot of environmental problems such as extensive gas flaring, deforestation, and desertification with serious consequences on climate change. How are these issues covered and framed by Nigerian newspapers? Content analysis of systematically sampled, 438 issues from 4380 issues of four purposively selected dailies between 2007 and 2009 shows dominance of climate politics/economics (61.2%), foreign sourcing of reports (63.4%), straight news formatting of reports (83.6%) and framing in terms of mitigation (55.2%). We conclude that coverage and framing constrained opportunities for popular participation in climate change discourse. To improve the situation, Nigerian newspapers should broaden the scope of climate change coverage and framing, widen local sourcing of reports, diversify the formats of reporting, and frame the issues more in the mould of adaptation to boost involvement of people in climate change discourse through monitorial, supportive and collaborative strategy in agenda setting agenda.

Hanna Bergeå

Economy as challenged rationality in the argumentation of farmers and advisers

Farmers tend to rank other values higher than money as motivation for why they are farmers. Also in studies of taking action for biodiversity, economic incentives are seen to have limited importance, especially for active and durable engagement. Rather the encounter between adviser and farmer is crucial for commitment. Despite this, subsidies constitute the fundamental incentive to enter Agri-environmental schemes (AES) and ample amount of money is spent on these programs and their subsidies. This paper investigates field encounters between farmers and advisers where measures for biodiversity are discussed in relation to the qualifications for subsidies within AES. One finding is that economy is used as rationality in the argumentation both for and against biodiversity supportive actions and seems to be a legitimate argument by both parties. Based on video recorded real interactions between farmers and advisers, this study critically questions how viable economy is as rationality for farmer decisions.

Brita Berglund

“We know how to talk to farmers”: Dealing with stakeholder interaction in participatory land restoration in Iceland

As many other environmental agencies, the Soil Conservation Service of Iceland (SCSI) recently decided to adopt participatory approaches. Stakeholder interaction is a key component of participation but a dilemma is that environmental agency employees usually lack formal training in communication. This study explored how SCSI district officers experienced stakeholder interaction in participatory land restoration. Semi-structured interviews revealed five challenges facing them and eight strategies that they used to deal with these challenges. The core challenge was to establish and maintain contact with other stakeholders as it enabled the SCSI to support and influence others' soil conservation practices and thus to achieve the agency's goals. Dealing with personal emotions was also a prominent challenge. A comparison with five interactive processes characterizing collaboration according to symbolic interactionists (Charon, 2010) showed that four of the identified strategies promoted collaboration. The other strategies aimed at supporting the officers in their collaboration efforts.

Andrew Bieler

Participatory Art Exhibitions: Public Pedagogy and Global Climate Change

This poster presentation interrogates an art-based environmental education program run by the *Cape Farewell* project, called New Generation. *Cape Farewell* was initiated by British artist David Buckland, in response to his fascination with the predictive power of mathematical climate change models and the need to communicate climate science to a broader public in an emotionally engaging way (Buckland and Lertzman, 2008). The New Generation program attempts to reform society's understanding of the cultural responsibilities and possible scope of art education in relation to climate change. Building upon research on the role of art in fostering a critical pedagogy of place in environmental education (McKenzie 2008, 269), and emerging research on art and sustainability (Kagan 2011; Gleiniger, Andrea 2011), I show how this program catalyzes the production of site-specific art exhibitions, such as the *Without Boats, Dreams Dry Up* show, that re-imagine the cultural politics of sustainability in relation to rural and urban landscapes in the UK and the USA.

Simon Birnbaum

Fisheries regulation and the quest for compliance: How legitimacy matters

The role of legitimacy has attracted increasing attention in both fisheries research and fisheries policy. Many recent contributions to the literature on sustainable fisheries have emphasized the significance of user or (more broadly) stakeholder participation as a key measure for high levels of compliance with the desired norms. However, the analysis of the constituent components of legitimacy in this literature is seldom systematically informed by political theory on the central concepts and assumptions of these claims. Hence, this article aims to provide a theoretical framework in support of the empirical exploration of the links between legitimacy and compliance, with particular emphasis on how best to specify, understand and evaluate claims about the impact of stakeholder participation. The study addresses a number of ambiguities in central concepts and hypotheses about the objects and standards of legitimacy, the dimensions of stakeholder participation and, finally, trade-offs between different aspects of legitimacy. This task is important since insufficient precision may easily generate misleading conclusions in the interpretation of results and, ultimately, in efforts to construct well-targeted political measures.

Therese Bjärstig et al

The agency-structure dialectic in moose mgmt - communication as precondition for and outcome of adaptive co-management

The concept of (co)-adaptive management (AM) is widely advocated as an alternative to traditional top-down management of natural resources around the world. In Sweden, AM has only recently been introduced to manage moose, with the objective to reduce conflicts between forest owners and moose hunters. Whilst a number of challenges related to the implementation of AM have been revealed, one of the main challenges seems to be linked to communication amongst stakeholders around both technical and social aspects such as monitoring and information management. This has in turned raised the question of the role of communication in AM, and to what extent it should be seen as an important precondition for (individual action) or as the outcome (social structure) of successful adaptive co-management. The presentation will elaborate on the relationship between communication and AM based on stakeholders perceptions and experiences of the implementation of AM in Swedish moose management.

Chris Blackmore, Ray Ison & Kevin Collins

Supporting water governance and climate change adaptation through systemic praxis

Understanding and working with multiple perspectives on issues of change is an essential part of managing 'common pool' water resources. In uncertain and complex situations arising from changes in human settlements and climate, both lives and livelihoods can be at stake. One individual's or group's choices can adversely affect others and traditional processes of participation and legislation are often inadequate. Discourse on environmental law recognises that non-compliance with legislation is associated with weak national governance structures (Beyerlin and Maruhn, 2011). A systemic approach to managing change is required to appreciate interconnections among issues at various levels and to mediate different stakeholdings. Yet there are no blueprints for effecting systemic transformations of complex situations. This paper will therefore explore how the implementation of climate change adaptation can be supported when grounded in situations, such as water governance. It draws on the authors' experiences of systemic praxis in the water sector. Emma Frances Bloomfield

Climate Change and Apocalyptic Rhetoric: Rhetorical Roadblocks to Political Consensus

Climate change is an inevitability that threatens the world's population. Despite certainty on behalf of scientists and even military officials, the American political and public spheres have failed to reach consensus on climate change. This essay argues that a contributing factor to this stalemate in American politics is the use of religious rhetoric, apocalyptic metaphors, and doomsday comparisons to discuss climate change. Crafting climate change as a foreshadowing of the end of the world does promote urgency and highlights the catastrophic danger, but it also allows for skepticism, doubt, and the contextualization of climate change as a matter of faith rather than fact. Only by changing the language being used to describe climate change or supporting the apocalyptic argument will consensus be reached, allowing for meaningful policy action.

Emma Frances Bloomfield

Visual Representations of Climate Change: Arguing for Personal Importance and Urgency

The long-term and often unseen consequences of climate change are obstacles to enacting environmental protection and changes in personal behavior. Visual rhetoric can be a solution to this problem by showing realized effects of climate change which create personal and emotional responses. From iconic images of ice-caps melting to localized droughts, and protests, visuals help create personal urgency for viewers. Using visual rhetoric and visual framing techniques to analyze photojournalism images and media portrayals of climate change, this poster will evaluate visual strategies for enacting climate change arguments to see if patterns emerge. Informed by the arguments of visuals, photographs and images can help overcome uncertainty and hesitation towards enacting environmental change, both for the general public and politicians.

J. Boehnert

Re-Imaging the Commons as 'The Green Economy'

The United Nations' 'Green Economy' program radically re-imagines the commons as a space where ecosystems services can be quantified, financialised and traded. This paper will examine problems with this version of the 'green economy' for environmental communicators. It will draw on a range of case studies and review the etymology of the concept of the 'green economy'. It will propose strategies to address the contentious discourses in this area. The UNEP's 'Green Economy' program will be referred to in this paper as the 'UN's G.E.' to avoid confusion with what green economists describe as the 'green economy'. In stark opposition to what green economists have traditionally conceived as the 'green economy', the official UN policy will close deliberations on the commons by privatizing 'ecosystem services' – thereby taking environmental decision-making out of a political sphere and into the marketplace.

Max Boholm & Rickard Arvidsson

The value of environment in the controversy over antibacterial silver: A Swedish case study

In this study the argumentation in the Swedish controversy over using silver as an antibacterial agent in consumer and health care products is analyzed. The analysis builds on texts from news media, government agencies, non-government organizations, municipalities, companies, the Swedish parliament and the Swedish Government. Opponents argue that silver is harmful to the environment, while those in favor, not only refute that antibacterial silver is harmful to the environment, but claim it is even beneficial for the environment. Disregarding such disagreement, both proponents and opponents agree on the value at stake, namely the environment. Refutation of opposing views and invoking scientific legitimation are general argumentative strategies used by both sides of the debate. These patterns of the controversy form a complex, shattered and multi-faceted context that restricts citizen conceptualization, information seeking, participation and deliberation.

Åsa Boholm

Multifarious environmental concern: Participatory conundrums in natural resource management and land use planning

Environmental concern articulates a generally agreed awareness of the fragility of nature, habitats, ecosystems and life systems under threat from human activities. Although environmental concern tend to be shared as an abstract discourse among societal actors, case studies of stakeholder participation in for instance land-use planning and development, wild-life protection and natural resource management, bear witness of oftentimes strong disagreement regarding the evaluation of various identified concrete manifestations of objects belonging to the (natural) environment. The paper draws on the lesson from sociology and environmental anthropology that the conceptual category of the environment is relational and thus depending on perspective. It answers to the questions how and why, environmental concern shared in the abstract, when addressing a specific environmental issue allows for disagreement and conflict regarding values at stake, and what regimes of environmental management and protection are arguably called for.

Jennifer Bond

Contextualising Natural Resource Conflict through a Holistic Frame: The Unifying Negotiation Framework

This paper discusses the use of the Unifying Negotiation Framework (UNF) as a tool for analysing complex conflict situations in order to design deliberative conflict management processes. By analysing the context of the conflict and identifying its 'critical features,' the researcher or practitioner can make well-informed decisions regarding the specific requirements a deliberative process appropriate for that situation. A UNF analysis can guide the development of a conflict management strategy that responds to contextual requirements. The article draws on empirical studies from Kenya and India to demonstrate how the UNF allows for complex natural resource conflicts to be analysed in relation to the embedded ecological, institutional and social contexts, thereby providing a holistic and realistic frame as a basis for understanding and action.

Pat Brereton

Scoping Audience Studies in Eco-cinema Research

The lack of robust audience research to help underpin and critique Film Studies' preoccupation with grand theoretical analysis has become a major concern in the academy and needs to be addressed with some urgency. Hollywood movies remain valuable as artefacts for "seeing ecology" and for framing large-scale ethical debate. However, ecological agendas in Hollywood eco-films require extensive empirical analysis to test and evaluate hypothesis with inclusive, meta-narrative, audience engagement approaches, such as the area of study for new generations of students, as they relate directly to the future survival of the human species while their ecological beliefs, attitudes and values, and global cultural consciousness. In addition, new research efforts into non-fictional ecological risk (from 'mad cow' disease to nuclear and chemical abuse of the environment culminating in climate change), affirms that its impact is strongly predicated on how audiences/citizens use such 'stigmas' to produce 'cognitive maps'. This paper aims to demonstrate the need for audience studies in eco-cinema research, in terms of developing robust strategy for future audience analysis to fully articulate the wide range of planetary and local ecological process and issues. It is argued that close textual analysis of film must become embedded within wider interdisciplinary studies, encouraging cultural/film scholars through their critical engagement with emerging ecological representations.

Thaís Brianezi

The shift in the discourse about a free trade area in the Brazilian Amazon: from progress to ecological modernization.

The Manaus Free Trade Zone (ZFM) will end in 2023, but there is a proposal to amend the Brazilian Federal Constitution so that it lasts until 2073. From the understanding of discourse as a social practice (Foucault, 1987, 2002, 2005; Hajer, 1995, 2005, 2006), this paper is based on the critical analysis of 265 parliamentary pronouncements, 19 editions of a institutional magazine and 626 news from the most important local newspaper, all published between 2007 and 2010. It reveals a shift in the discourse about the ZFM, guided by ecological modernization. The industries are now presented as responsible for protecting the rainforest: it is said that if the tax incentives stop, there will be unemployment and deforestation. This fatalistic story line does not recognize the role of traditional peoples and communities in forest conservation and neither is open to the public debate about other models of development for the Amazon.

Mark Brown

Nature Incorporated: moving the commons beyond natural resource contexts?

In the conference theme the organizers express their frustration over the way in which the stakeholder engagement model of participation has reproduced "the instrumental ways of the past decades." Confirming their frustration, this paper demonstrates, through empirically based analysis of the language of 'sustainable' business, how current models of CSR are leading corporations to develop a language for managing the commons as a resource, within their own spreadsheet-based systems of operation.

Arjen Buijs

Emotions in area-based participatory processes: Openings and closures for visioning and design

In this presentation we theoretically and empirically investigate the role of emotions in forest and nature conservation conflicts and the processes through which they are (de)-legitimised. Based on three case-studies in the Netherlands, we investigate the construction of the legitimacy of emotional accounts by non-professionals. Our results show that powerful professional actors tend to de-legitimise the emotional accounts and place-based understandings of landscapes from non-professional stakeholders. Consequently, such actors are often excluded from meaningful influence on the outcome of the process. In this, a distinction seems to be constructed between the processes of visioning and design. In developing a vision for an area, only rational accounts are constructed as legitimate. However, in the implementation phase, when future landscapes are design in more detail, emotional accounts also tend to be seen as legitimate. Is this distinction helpful to grant all stakeholders the opportunity to participate, or does it reproduce power relations and closes the opportunity for meaningful citizen participation in decisions about the future of an area?

Elizabeth Burch

What Environmental Journalists in Jamaica and Nepal think: Paradise and Poverty in two small developing countries

The developing countries of Jamaica and Nepal both suffer from environmental crises that are complicated by the push to compete in a globalized economy. A need exists for the local media to raise awareness of environmental problems. This study poses the questions: What contextual factors, forces and actors constrain journalists in Jamaica and Nepal in their quest to report on health, science and environmental issues? What are the similarities and commonalities between nations that are highly dependent on a tourist economy? As findings show, advocacy journalism, gender inequality and other factors play a major role in news coverage in small nations in the South.

Kristina Börebäck

Environmental communication processes with different expressions

An image of environmental communication processes within two emerging biosphere reserves in Sweden, The East Vättern Scarp landscape and The Vänern archipelago with mount Kinnekulle. Becoming a biosphere reserve is an ongoing process of emergence as learning sites for sustainability. Each site becomes an active node in the network of worldwide learning sites within UNESCO:s program "Man and biosphere" (Unesco, 1996) (Unesco, 2011). Though the communication process is central it will be how the actions and the activities become formulated as environmental communication. Biosphere reserves are interesting to study because the environmental communication concerns co-work, collaboration and co-management for sustainable futures. From a pedagogical or educational scientific viewpoint this becomes interesting not because of the output or outcome but from how outcomes and outputs becomes formulated or shaped as processes with expressions that will formulate opportunities or shape possibilities as the biosphere processes in the two biosphere reserves.

C

Cristina M. Caimotto

Can Stakeholders hold the Commons? English as the Global Language of Capitalism and that of Sustainability: Contradictions and Potentials.

The aim of this paper is to investigate the role of English as a Lingua Franca in the International communication concerning environmental issues. The analysis concentrates both on the use of Anglicisms in other languages (focusing on Anglicisms in Italian) and the role of English as the common language. Drawing on previous work by Crystal (2003) and Phillipson (1992) this paper will focus on how the issues debated in their work are revisited in the realm of environmental sustainability. The research will concentrate on "stakeholder" and "commons" both in the selected corpus in English and in the Italian corpus where they are found as Anglicisms.

James G. Cantrill

Your Place, My Place, or Someplace More Exciting: Pro-Creative Possibilities for Environmental Communication Scholarship

For more than 40 years, scholars have been investigating the psychological and communicative implications for the concept of *place*. During that time, a variety of quantitative and qualitative methods have been employed, often without obvious concern for the extent to which empirical conclusions match those held by respondents who originally generated data the analyses relied upon. This paper explores various threats to such *representational validity*, argues that an expanded view of what constitutes “public participation” offers a novel approach to understanding the dialogic development of place-based perceptions, and suggests ways in which communication researchers are uniquely positioned to advance the study of place in the environmental public sphere.

Donal Carbaugh

Words and Wilderness: Cultural Discourses of Dwelling

A fundamental problem in understanding nature and public deliberations about it involves relations between words and the world. This presentation explores various ways words are used in deliberations, and relations between words and the world presumed (or problematized) in such usage. In the process, a perspective is introduced for such study, cultural discourse analysis. Implications of the theory for understanding the environment, and for public participation will be discussed.

Anabela Carvalho

Remaking the Political through Climate Change Communication

This paper will discuss links between climate change, communication and politics, and set the theoretical and conceptual contexts for the empirical papers that follow. We will introduce the deeply political challenges posed by climate change, which extend well beyond government and the state and require that societies make difficult choices of collective significance. Those choices are connected in complex ways to communicative processes. Three modes of public engagement with climate change will be discussed: social marketing, public participation and agonistic politics. We will outline the theoretical foundations, assumptions and political implications of these modes of engagement, and look at the ways climate change communication may contribute to a transformation of politics. We follow Chantal Mouffe in describing “the political” as engagement with processes of debate and decision-making on collective issues where different values, preferences and ideals are played out and opposed.

Elvira Caselunghe & Hanna Bergeå

A contradictory approach to the right of public access – exploring relational factors in the case of agritourism

Commercialization of public goods is controversial because it challenges democratic values and tacit agreements. In the trend of agritourism voices are heard who encourage transferring nature values to a monetary system, which would connect to another realm of acknowledgement for the farmer. This paper investigates farmers’ perceived possibilities to get paid for services and values that traditionally have been considered being free through the right of public access. Data consists of semi-structured interviews and focus groups within a newly established Biosphere area in Sweden. Drawing on theories of the commons and recognition we discuss how agritourism can be considered a way to benefit from the common values to enable the farmer to sustain and develop values further. The study shows that due to the importance of cultivating relations to important others such as colleagues and neighbors, farmers feel hindered to formalize these relations and put a price on their services.

Silvia Castro

Green Campus Challenge (GCC) – Promoting Energy Efficiency at Higher Education

Energy efficiency lies at the heart of the European Union’s 2020 Strategy for smart, sustainable and inclusive growth, acknowledging that one of the greatest energy saving potentials lies in buildings. From the necessity to promote energy efficiency in society, it was designed the Green Campus Challenge (GCC) aimed to empower the users of higher education campuses (students, faculty and technical staff) with tools to reflect and act upon the energy consumption of their working spaces. To comply with this a range of communication strategies

were put in practice during the course of the competition: public and informative sessions at institutions and an intensive use of web based platforms to reach a wider and geographical disperse audience (website, webinars, Facebook, SlideShare, YouTube and iTunes). Ultimately, the lessons learned throughout the project could be applied to other schools and institutions either private or public.

Angela Chang

A Systematic Reviewing Current State of Obesogenic. Environment Study and the implications for Chinese

Childhood and adolescent obesity is becoming a global epidemic. Excessive body fat has long-term medical consequences for young people and causes a wide range of serious psychological challenges. This paper identifies studies examining obesogenic environmental factors and evidence. This current review primarily analyses whether physical, social, cultural and economic environmental factors are associated with obesogenic dietary behaviours. It further compares the influence of the environment on the risk of overweight and obesity at both an individual and population level in the West and for Chinese community. The literature searches of databases include Academic Search Complete, Health Reference Center Academic, Medline, Springer Link and Proquest Medical Library. Among 3139 research papers, few studies indicated several causes of obesity are established for Chinese community. On the measurement and evaluation of obesogenic environments, the increasingly pace of urbanization, economic growth, sedentary lifestyle, and marketing activities for unhealthy food and drinks are significant for Chinese. The discussion focuses on the solution to reverse the rising tide of obesity and overweight. A successful program aimed at reducing the percentage of overweight/obese young people, cure and prevention of the obesity epidemic problem, and trans-disciplinary working in the provision of healthier environments are also discussed here.

Terence Check

Memories of Malaise: The Rhetoric and Politics of National Energy Policy

The essay argues that public memory of significant environmental events and historical moments function rhetorically to shape contemporary attitudes on the environment and specifically the options that are considered feasible with respect to American energy policy. The essay examines the energy speeches of American President Jimmy Carter and contends that the way various publics remember Carter's speeches are important, since sites of memory are also sites of rhetorical struggle over the proper path for energy and climate policy. This essay argues that public memory of Carter's energy rhetoric functions to limit contemporary public choices over energy policy and climate change legislation. The essay also encourages scholars in environmental communication to undertake studies in public memory or remembrance of significant environmental controversies.

Adriano Ciani

The A.M.A.R. Project, the SIS-International Summer School in "Sustainable Management and Promotion of Territory" and the "Charter of Todi"

The International Summer School-SIS is part of a more broader project called A.M.A.R.-Associazione Mondiale di Amicizia delle Aree Rurali (World Association of Friendship of Rural Areas) which we would like to realize in Todi-Italy in 2014, that it's the anniversary of 150 years of the Foundation of the State Technical Agricultural Institute "A. Ciuffelli ".The path of the A.M.A.R. Project, saw as the first step, the development of the Charter of Todi as the Final Document of the activities of the International Summer School. It already been signed by more than 100 experts and personalities from Italy and foreign countries. The Charter of Todi have the main keyword tradi-ovation (tradition and innovation) that stands for "Territory, Rural Areas, through Development, Innovation, Organization, Valorization, user-friendly Technology, ICT sharing, Online Networking. This approach reflects the possible concrete actions to give effective sustainability at the projects and programs implemented in the local territory. The Charter of Todi is also in the original representation of the square of words an intriguing frame of reference for the Operational Sustainable Development Strategy to share with the being formed World Network of Friendship of Rural Areas-AMAR.

Serena Cinque & Annelie Sjölander-Lindqvist

“The closer the better”: Possibilities and limitations with frontline management. Lessons from the Majella National Park, Italy

In the Majella National Park in the Abruzzo region of Italy, wolves reside in the vicinity of local communities and may cause attacks on farmers’ property. In order to support the local farming community from the consequences of wolves’ harmful attacks on sheep and other living private property, the Italian state reimburses the farmers for their economic losses, give support visa-vi precautionary measures to prevent further attacks and strives to involve local communities in the natural resource management. Focusing on the locally recruited park managers, we address how they as “frontline bureaucrats” are to be considered as having an intermediary position in the implementation of natural resource protection policies. The paper investigates, firstly, how the ideas and goals of the national state, buried in regulations and policies, are put into action and secondly, how the park managers accommodate personal and organizational perspectives in their everyday meetings with the concerned stakeholders. It will be suggested that such frontline positions may help the development of sustainable large carnivore management.

Joseph Clark

Commodifying Heaven: Political Economy and Ecojustice Impact of Multiuser Virtual Worlds

In recent years, online communication technologies have expanded the scope of immersivity and presence to include “virtual worlds” that both celebrate human technological prowess and efface their own increasingly complex and costly technologies and their very real impact on human beings and the environment. Beginning with a brief explication of the way capitalism is reinscribed by media and the impact of this economic system on the environment, the paper turns to a specific examination of the environmental and ecojustice impact of this relatively new medium, primarily from a political-economic perspective, providing an opportunity to examine the culture industry at work outside news, television, and other venues of popular culture.

Joseph Clark

Transmedia and Transreality: Environmental Discourse in Virtual and Augmented Realities

This paper looks at transmedia narratives manifested in two new media: multiuser virtual environments (such as Second Life) and augmented reality. It does so against a backdrop of theory in political economics and culture studies, showing how mainstream narratives of commodification as well as traditional environmental messaging adapt to highly immersive, socially embodied media with their own inherent problematizations of what is and is not “natural.” Especially in the case of virtual worlds, much “content” is largely user-built and -owned, so they are also prime grounds for the emergence of new forms of contestation and resistive three-dimensional texts, demonstrating both the power and control exerted by the culture industry as well as the ways audiences appropriate and reconfigure materials for their own uses in emergent media.

Deborah Cox Callister

Process Literacy across Shifting Rhetorical Frameworks in Internal Coalition Participation

This essay explores internal coalition communication within the context of conflict. The author builds on Doxtader’s concept of deliberative rhetoric to develop a deliberative rhetorical framework that contains most, but not all, of the communicative processes and participant interactions aimed at mutual decision-making within an environmental coalition in the American West. The author introduces the concept of process literacy and argues that it is a rhetorical strategy in coalition maintenance, because it acts as a discursive lubricant enabling movement toward productive communication across rhetorical frameworks and communicative genres involved with navigating discursive difference and cultural tensions within internal coalition communication. Through participant observation and interviews best practices of process literacy are identified. This essay contributes to rhetorical scholarship in the realm of deliberative communication and should be of interest to scholars focused at the nexus of deliberative democracy, conflict studies, (including dialogue) political/deliberative/environmental communication and rhetorical theory.

Brian Cozen

Flows, Locomotion, and the Wild West: Mobile Participation through North Dakota’s Oil Boom

Spaces for public engagement are not limited to the public meeting. In the contemporary world characterized by an increased scale of mobile flows of capital and people, public spheres include, for instance, the traditionally conceived “non-place” (Auge, 1995) of transportation vectors. This paper considers the role of train travel in facilitating both the flow of labor and resources and unconventional public participation, the latter legitimating rationales for oil extraction. Namely, the author recounts passing through the North Dakota oil boom via Amtrak’s long-distance Empire Builder in the Summer of 2012, illustrating the increase in North Dakota traffic, historical narratives of the American frontier spirit as offered by regional museum volunteers, and the pleasure associated with the adventurous spirit of collectively shared boom tales. These intersecting, embodied practices, coupled with the economic logics that drive such booms, all suggest obstacles to transforming the energy system toward climate change mitigation.

Geoffrey Craig

Pleasure and Political Participation in Green Lifestyle Journalism

This presentation calls for an environmental journalism that gives voice to the pleasures associated with sustainable living practices. It argues that such lifestyle practices are an important form of participation in an environmental politics that spans public life and the private domain and that also problematizes the conventional binary between citizens and consumers. Examples of green lifestyle stories from British online news sites will be examined to highlight that the pleasures associated with sustainable living are often marginalized, and instead an ethical consumer is commonly posited who is variously cognitively deficient, worried about the environmental consequences of their everyday behavior, or concerned about their inability to realize their desires to engage in sustainable lifestyle practices. Responding to such stories, I argue we need journalism that re-grounds pleasure in our social relations and our engagements with everyday environments in a way that energizes the environmental agency of individuals and communities.

Lauren Cutlip, Carl G. Herndl & Sarah Beth Hopton

Talking About Talk: The Problem of Communication as an Object of Study in Public Participation Research

When citizens participate in risk assessment and decision-making for environmental and other issues that affect members of the public, more robust decisions may be made. Public participation is not only more democratic, but it also enables members of the public to contribute valuable expertise to the decision-making process. However, the development of an effective forum for participatory projects has been difficult. Participation mechanisms that foster dialogue and interactive exchange between participants have been regarded as the most beneficial, but the practical application of these mechanisms has been problematic. This study examines the role of talk as a contributing factor to the limited success of dialogue-based participation mechanisms. To do this, we perform a qualitative analysis of the dialogue that takes place when a group of scientists and farmers participate in a project concerning sustainable biofuels in Iowa. We find that the scientists and farmers, as members of distinct communities of practice, have different ways of talking about their work even as they talk about the same subjects. This observation illustrates that the discourse that takes place within participatory mechanisms, and not only the mechanism forum itself, is an important contribution to the success or failure of a participation project.

D

Ida Dahl

Forest machine operators' perspective on environmental considerations in timber harvesting

I will present findings from my thesis on Forest machine operators’ perspective on environmental consideration when harvesting, which is still a work in progress. Considerations to the environment have to be taken according to the Swedish Forestry Act during regeneration felling. These are performed by forest machine operators. I have conducted seven semi-structured interviews with operators working for different companies and organizations in Sweden. I am investigating their descriptions of how it is to perform considerations in practice, what their knowledge is about considerations and what we could learn from their perspective on this practical task.

Kajsa E. Dalrymple, Bret R. Shaw & Dominique Brossard.

Making a difference: A Hierarchical Linear Modeling Approach to Understanding the Role of Opinion Leadership in Encouraging Environmental Behavior Change

Research continues to point to the important influence that individual's perceptions of others' attitudes can have on personal opinion and daily decisions. Unfortunately, quantitative research has yet to adequately determine the connection between opinion leadership and public behavior change. This study, therefore, seeks to fill this gap in the research by examining both the individual-level factors influencing behaviors, and important contextual factors related to opinion leadership. Specifically, this study applies a novel methodological approach (hierarchical linear modeling) to opinion leader and public data in order to examine what types of opinion leader characteristics may influence positive environmental behaviors, and how those characteristics may interact with individual factors. Findings indicate positive relationships between traditional media use and environmental behaviors, but suggest that media effects are moderated by the level of activity of opinion leaders in their communities. The importance and implications of research investigating contextual predictors of opinion leadership are discussed.

Brian A. Day & Amielle DeWan

Rare Philippines Sustainable Fishing and Social Marketing

The international conservation NGO Rare has just completed a cohort of 12 social marketing campaigns on unsustainable fishing in the Philippines. As I submit this extended abstract on September 14, 2012, the graduation ceremony for the campaign managers was literally held yesterday. The selection of a specific campaign and the full validation of the data are not yet complete. Below is the very preliminary data from one of the campaigns to demonstrate the results of the cohort of campaigns. The final paper which will meet all of the COCE deadlines will reflect the detailed findings of one of the campaigns. The example illustrative campaign is from the Philippines community of Inabanga, and is not meant to suggest it will be the campaign that will be featured, but is just one of the first campaigns to have preliminary data completed. The paper contains a few photographs of some of the methods used by Rare in the Philippines. A cohort of Rare campaigns uses a standard structure for a Theory of Change. The specific Theory of Change for each campaign however is specific to the campaign. All 12 campaigns in the cohort use a standard methodology for measuring impact. Rare has now completed 226 campaigns in over 50 countries over three decades. As the IECA COCE conference would like to have the most current completed research, I have chosen to submit this extended abstract in a generic form with full knowledge that we can produce a completed publishable paper with international authorship well before the Spring deadline. Again, the following extended abstract is for illustrative purposes, but is from one of the 12 campaigns that the final will be selected from.

Hao Di

Interpret Without Being There: Several Recommendations on Information Board for Tourists

The tourists to a place would construct their knowledge of the place and related concepts as well as their own experience there, and interpretation practices serve to facilitate both. The tourists tend to formulate a consistent information system (knowledge/memory) about the place, with the sensory information they capture from surrounding environment, the knowledge they possess, and additional information provided. Information board, as facility with which interpreters communicate with tourists without being there personally, should then provide consistent information in itself, correspond with sensory information, and appeal to the tourists' own understanding. More detailed recommendations could be developed accordingly.

Richard Doherty

Environmentalists' Use of Transmedia: Queering Media Norms for Social Change

Transmedia is not contested terrain, it is mainstream media. A review of the philosophy of technology literature exposes the use of transmedia as maintaining the status quo. To queer transmedia would reveal normalizing, dominated knowledges. A critique of technology points to the product, process, and design of technology. All three (via values) have an inherent bias toward capitalist hegemony. Transmedia use depends on unjust technology resources controlled by dominant corporate and government entities. Ignoring the bias of values reproduces the same scenario with no change. Transmedia relies on non-convivial technologies that

discourage nature-human relationships. Authentic engagement with nature instills the values required for social change. This paper opens up an alternative perspective on transmedia for environmental communication and social movements.

Caroline Gottschalk Druschke

Public or Expert? Finding Legitimacy in Deliberations About Commercial Fishing Policy in Rhode Island, U.S.A.

This call for papers encourages presenters to consider how environmental communication can contribute to the Rio (1992) mandate for “participation of all concerned citizens at the relevant level.” This proposed paper attends to the open question of what marks “relevant” participation in a particular setting at a particular time. Highlighting qualitative field research conducted with commercial fishermen, marine scientists, and policymakers in Rhode Island, U.S.A., this paper considers the struggles of these various stakeholder groups to define what relevant participation might mean and who it might include in the contexts of research, policymaking, and regulation. As I argue, in their frustration over the lack of consequential avenues for public participation in research and policymaking, many commercial fishermen are repositioning themselves as scientific experts, therefore entitled to legitimate participation in the policymaking process. But I question whether this transformation to gain access to a consequential voice delegitimizes public involvement even further.

Alex Dunedin & Susan Brown

Inclusive discourse and knowledge building around environmental challenges: The vision and experiences of the Ragged Project

Environmental challenges are complex. They need to be approached from multiple perspectives rather than in discrete, binary ways ‘disastrous in a joined-up World’ (Parker, 2010,p.327). Many of these challenges affect all of us. This means we all need to play a role in informing and addressing them. The extent to which people can play such a role will depend, in no small measure, on the extent to which their voices are included and valued. Discourses around environmental issues cannot be confined to an educated elite. Rather they need to be built through knowledge sharing between those with relevant expertise and with members of the public. This paper explores the vision and experiences of the Ragged project [<http://www.ragged-online.com/>] which is developing a model for facilitating the inclusive discourse and knowledge building needed for the creation of richer pictures of environmental challenges and how to address these.

Sharon Dunwoody, Robert J. Griffin & Dominique Brossard

Cueing Attitudes about Global Warming. Using Characteristics of New Media Channels

This online experiment sought to explore the ways in which characteristics of environmental messages embedded in social channels may serve as social cues to users. Specifically, we examined whether the number of views listed under a YouTube video about global warming would elicit inferences about how “others” feel about the issue and, consequently, would modify the salience assigned to the issue by the participant. Participants recruited from university classrooms were exposed to a modified YouTube video about global warming. One condition had few views noted under the video while a second condition signaled a high number of views. Results suggested that the “views cue” did, indeed, influence some participant perceptions. Specifically, those individuals who scored as high “self monitors” and who were in the “high view” condition assigned a greater level of importance to global warming after seeing the video, as compared to the other groups.

E

June Edvenson

Calling a Spade a Spade: Legal Property ‘Business as Usual’ and the ‘Commons’ of Earth

This paper begins with an exploration of the legal definition of ‘commons’ and builds on two previous papers, “Shape-changers: Embracing Business Metaphors in International Human Rights Law” (2010), and “The Tragedy of the Commons & Red Threads in Business Communication” (2011). In this paper, I review the current state of

legal scholarship on “commons” issues, in particular. The literature review is then classified to reveal the greatest legal roadblocks affecting progress towards sustainable biodiversity. Roadblocks include international human rights law, itself, as well as traditional legal hurdles in property, environmental and company law. I discuss each of these roadblocks briefly from a methodological perspective, subjecting them to (1) communications strategies, and (2) economic research principles. Necessary directions are indicated and are multi-disciplinary, while holding grave implications for legal ‘business as usual.’

Michael Elliott

Communicative Strategies For Enhancing Civic Participation In Environmental Justice Communities: A Cross-Cultural Comparison

The promotion of environmental equity, an ideal in many societies with diverse populations, poses particular challenges to processes of effective communication, civic capacity and participation. After a survey of theoretical approaches to environmental justice and an examination of its linkages to communicative decision making, the paper explores two case studies with long histories of both environmental justice concerns and participatory efforts. Despite their very different contexts, Chattanooga (US) and Negev Bedouin villages (Israel) demonstrate the centrality of civic capacity and of communication skills in effecting positive change. Based on these cases, community leadership and voice is seen as both situational and transactional. Effective voice grows from increasingly dense networks of communication, both within the marginalized community and between leaders in that community and external agencies and stakeholders, networks that enable both insiders and outsiders to engage in more equitable environmental decision making.

Jens Emborg, Steven Daniels & Gregg Walker

Teaching and Learning about Natural Resource Conflict Management and Decision-Making: The Unifying Negotiation Framework Approach

This paper presents the Unifying Negotiation Framework as the foundation and organizing chassis for a graduate-level course on natural resource conflict management and decision-making. The authors have taught graduate seminars in Denmark and the United States that have featured various iterations of the UNF. This paper includes a general explanation of the UNF and describes how it can serve as the basis for a course on natural resource conflict management and decision-making. The discussion features learning activities designed for learning about and applying the Unifying Negotiation Framework.

Danielle Endres et al.

Putting the U in Carbon Capture and Storage: Performances of Rupture within the CCS Scientific Community

This paper examines a rhetorical framing shift from CCS to CCUS within science and technology professionals’ communication, particularly how the professional community responded to this framing shift. Drawing from participant observation, we describe and evaluate the moments of rupture caused by putting the U in carbon capture and storage. Drawing from the theories of terministic screens, rhetorical boundary-work and the cultural performance of social drama, we argue that the framing shift is a breach or rupture in the boundaries of the CCS professional community that calls forth cultural performances of confusion, acquiescence, and resistance to the framing shift. This theoretical framework has the potential to serve as a powerful heuristic for examination of similar inter-scientific framing shifts. In addition, this paper contributes to contemporary research in rhetoric of science (RoS), social dimensions of CCS, and environmental communication.

F

Andrea M. Feldpausch-Parker et al

The Adventures of Carbon Bond: Using a Melodramatic Game to Explain Carbon Capture (CCS) and Storage as a Mitigation Strategy for Climate Change

In the U.S., policy options for mitigating climate change have been severely limited because of competing ideologies. Opposition to mitigation has successfully framed it as existing outside the realm of fact, instead framing the issue as a melodramatic struggle. While scientists are uncomfortable with melodramatic framing,

we argue that melodrama plays on people's tendency to conceptualize issues in these terms and has the capacity to shift debate from the factuality of climate change to mitigation strategies. We developed a video game that uses melodrama to teach youth about climate change and CCS to create an understanding of CO₂ as the villain and humans as heroes through participation in mitigation strategies. We analyzed *The Adventures of Carbon Bond*® as a medium for engagement. Using surveys, we demonstrated that students experienced knowledge increases as a result of game play. We conclude by discussing the implications of our findings for productively reframing climate change towards an emphasis on mitigation.

Andrea M. Feldpausch-Parker, Israel D. Parker & Tarla Rai Peterson

350.org: How an International Web-Initiated Campaign Continues to Reinsert the Public into the Climate Change Debate

The topic of anthropogenic climate change has become a quagmire for international politics. As policy experts battle over how to mitigate and adapt to climate change, the public has a tendency to be relegated to the sidelines. While this technocratic approach is somewhat understandable because of the complexities of the issue and its heavy reliance on scientific information, the democratization of expert knowledge has disregarded the importance of public expertise and involvement. We use Giddens' structuration theory to examine how an internet movement facilitates the reinsertion of the public into international climate policy. Our focus is on 350.org, a non-governmental organization responsible for orchestrating the production of over 5,000 rallies across the globe on 14 April 2007. We also provide an update on how the organization has progressed since its opening event in 2007, including the continual evolution of its mission and expanding campaign scope (i.e., energy and socio-economic issues).

Maxi Freund

Magazines as change agents to a greener world? A cross-cultural analysis of German, French and Swedish sustainable lifestyle magazines

Changing the way we live is key to realising a sustainable society, but the communication of this idea has only resulted in partial success, partly due to the patronising tones of the mass media. Recently, a new trend of special interest magazines has appeared across Europe, aiming to influence attitudes towards sustainability. They are published by small associations and rely on advertisers' support, which is reflected by their remarkably supportive stances on consumerism. Through qualitative-quantitative analysis of over 1400 articles in German, French and Swedish publications, I show that the spectrum of practical advises, positive messages and gentler lines of arguments are in stark contrast to mainstream journalism. Despite the cultural gaps across the three countries, these magazines have surprisingly uniform approaches and messages, and the passionate responses from their respective readership show that the printed media can still be a means to seed and refine ideas towards sustainable lifestyles.

Mikkel Fugl Eskjær

Climate news across media platforms - a comparative analysis of climate change communication on different news platforms

In a rapidly changing media landscape marked by technological, institutional and cultural convergence, comparative studies and cross-media analysis of climate change communication represents an important analytical tool in mapping the diverse channels of climate change communication, the different sources and agents represented in public climate change communication as well as the diverse possibilities of participating in public debates and information sharing.

This paper presents a comparative study of climate change news on four different media platforms: newspapers, television, web-news and mobile news. By combining quantitative and qualitative content analysis the paper intends to document and explore the extent and character of climate change news across different media platforms. This way, the study aims at contributing to the on-going assessment of how news media are addressing climate change at a time when old media and new media are increasingly competing for attention.

Emilie Falc

Citizen-Sourcing and Reframing Environmental Discourse: An Analysis of Frances Moore Lappé's *EcoMind*

This paper provides an analysis of Frances Moore Lappé's environmental rhetoric in the book, *EcoMind*, which describes a necessary paradigm shift in how we construct our relationship to our world and how we participate as citizens. Foss and Griffin's theory of invitational rhetoric and McKerrow's theory of critical rhetoric elucidate some of the finer points of how Lappé's rhetoric engages citizens to reframe environmental communication to envision and act on our interconnectedness with one another and nature. This paper also analyzes a participatory process of writing and supporting social movement rhetoric, which is *citizen-sourcing*, a particular form of crowd-sourcing that hails readers as citizens. Citizen-sourcing can be used to increase public engagement consistent with an ecomindfulness of a collaborative worldview of possibilities and civil courage. In this citizen-attitude is an ethos that respects differing viewpoints while expecting to work together to solve problems and build creative local solutions.

June A. Flora & Hilary Boudet

A Behavior Change Attribute Model: The case of residential energy behavior

Human behavior change underpins climate change mitigation; yet, most research on communication about behavior has focused actor characteristics. Missed in this determinant approach is an understanding of the attributes of the behaviors themselves, for example, skills required, observability and frequency. We present a Behavior Change Attribute Model (BCAM) that conceptualizes behaviors as the "population" and attributes as the "characteristics" of interest. K-means cluster analysis of 250 energy behaviors and nine theoretically derived attributes yielded five behavior "bundles:" Call an Expert, 28% of behaviors; Family Style actions, 25%; Household Management, 19%; Go Shopping, 18%; and Behind the Scenes Work, 10%, respectively. Call an Expert bundle yields the largest energy savings (kWh) with Behind the Scenes and Go Shopping second. Yet, Family Style actions and Household Management action bundles are more embedded in "practice." We discuss how this practice oriented clustering of behavior can advance program targeting, message design, outcome selection.

Joshua Frye

The Rhetorical Construction of Food Waste in Public Discourse

Food rhetoric is an increasingly popular type of discourse. The rhetoric of food *waste* is clamoring to be heard amongst the many other vociferous food rhetorics presently dominant in the public discourse. This work examines the rhetorical construction of food waste by analyzing a spectrum of "food waste" frames appearing in contemporary US public discourse. Dominant food rhetorics point audiences' attention to certain frames of understanding, issues, lenses, and grammars. Even though the rhetoric of food *waste* has gained more attention in the last few years, it is still formative. Drawing upon Cox's definition of the public sphere and employing frame theory, this paper analyzes food waste discourse emanating from the US, including media, journalism, social movements, government regulatory agencies, and community organizations. The analysis includes food waste diagnostic, prognostic, and motivational frames and discusses the implications of these historically bound and culturally specific rhetorical constructions.

G

Shiv Ganesh

Reworking Resilience: Cosmopolitanism and Localism in the Transition Movement

The transition initiatives movement is a popular and now global ecolocal movement. This paper discusses the potential for the transition initiatives movement to be simultaneously responsive to current global environmental and economic crises, while also engaging substantively and deeply with issues of democracy. Accordingly, we provide an overview of the movement and discuss how it constructs a collective, systemic and eco-centric notion of resilience to consolidate and respond to economic and environmental crises wrought by capitalism. The heavy emphasis on process means that much depends upon how the transition movement engages with enduring concerns about democratic ideals. We single out three common terms in the movement for attention: *inclusivity*, *open space decision making*, and *open-endedness*, showing how they are held in pragmatic and often productive tension with the need to achieve practical outcomes. In concluding, we identify key challenges for the movement in resisting dominant economic and political power relations.

Antida Gazzola, Roberta Prampolini & Daniela Rimondi

Participation Revisited: Openings and Closures for Deliberations on the Commons. A critical view on participation in Italy

Our paper wants to give a brief account of the principles that underlie the participation of citizens in the governance of the territory in Italy. Particularly, after having examined the origin of the participation in Italy and its articulation, we focus on cases of public participation in the processes of concept and construction of architectural projects or urban planning. Generally this kind of participation is made with top-down procedures, contrary to many indications of experts and also of the European Commission itself who would like to see implemented bottom-up procedures. Will be briefly presented some examples of the operations carried out by the laboratory CRAFTS as a facilitator in an intermediate position between the public authorities and citizens in an attempt to reconcile a top-down stimulation with bottom-up verification.

Nícia Givá

Engaging the Community, Reclaiming the Commons: Case Study of a National Park in Mozambique

When Limpopo National Park was established in 2001, the 28,000 residents within park boundary were persuaded to accept that park would bring them many opportunities. Today, they have not seen any park-derived benefits and perceive the park's creation as detrimental to their livelihoods, while park authorities still seek an approach that accommodates conservation and people's livelihood goals. This study departs from recent arguments for revisiting the concept of parks as human-inhabited protected areas, re-imagining the Commons and searching for coexistence of people and wildlife for example. Systemic Action Research approach being adopted here facilitates iterative cycles of workshops and actions with relevant actors towards sharing of worldviews, systemic understanding of the complex situation and alternatives that allow the multiple goals to emerge. This paper reflects on efforts to 'engage' the community and park management in arenas of social learning, agreements about areas of concerted action and transformative change.

Nícia Givá & Nadarajah Sriskandarajah

Protected Areas as Commons: Re-examining Access and Rights

The notion of commons within protected areas can be paradoxical since it brings together the aspects of the collective and the controlled nature of access face to face. In protected areas managed under Multiple Use (MU) regimes, resources are regulated to the extent which allows local users balance conservation and people's needs. At the same time, the policy of regulation can be interpreted as violating people's rights to the 'commons' when the access does not serve the same people's basic needs such as food. This paper analyses two contrasted cases of National parks with distinct management regime, one in Nicaragua with a pristine policy and park inhabitants boycotting the conservation policy in appeal of the commons to provide for their deprived livelihoods, another in Mozambique where despite a policy that allows partial use of resources, park residents' basic needs remain unmet. Thus, claims for alternative management of the commons persist.

Jennifer Good

Transmedia's Uses and Gratifications in Hegemonic and Counter-hegemonic Contexts

The Occupy Movement provides an excellent example of the powerful counter-hegemonic role that transmedia can play in uprisings and calls for social change. At the other end of the continuum, advertisers and marketers are steadfastly researching transmedia's hegemonic potential for encouraging capitalism's primary tenet of economic growth through ever-increasing consumption. Uses and Gratifications provides the theoretical foundation of this research and interviews with members of various Occupy movements and executives from marketing/advertising agencies provide a valuable picture of the intersection of socio-political orientation and transmedia technology. This paper, therefore, explores the environmental implications for how those involved with hegemonic and counter-hegemonic movements make use of, and make sense of, transmedia technology.

Heike Graf

'Another World is Plantable': Urban Activist Gardeners' Communicative Strategies

Urban activist gardening is practiced in cities all over the world. It can take many forms, ranging from community gardens on vacant lots - that is, food-crop cultivation of what is considered to be neglected and/or common land - to seed-bombing vacant lots with flowers or "writing" moss graffiti on rocks, logs, pots or statuary. Communication is key to these actions. Mass media has covered the movement for a wider public, presenting and framing the activities in narratives ranging from condemnatory to admiring, from approval of its communitarian to its neo-liberal nature. This paper concentrates on how urban activist gardeners themselves contribute to this process, by describing their actions on their websites. Using theories of communication, we will look at how activist websites first define the garden spaces, and then represent individual and collective experiences thereof. How is the key signifier "garden" developed; can one speak of "common space"; how is it linked to seasonal and linear time? What voices are heard; to what audience do they turn? How do they try to open up for participation for the "right" people? Which rituals of communication are, in short, involved?

Susan Grantham

Policy Issues Dominate U.S. Environmental News: A Content Analysis of Seven U.S. Newspapers' Coverage of Environmental Issues from 1970-2010

This project examined the focus of environmental news frames used in seven American newspapers between 1970 and 2010 following the first Earth Day and the creation of the Environmental Protection Agency. During this time newspapers were a primary source of news. The content analysis of 2123 articles from seven American newspapers (four national and three local) examined the environmental topic of the articles (environment or environment paired with another topic such as health, policy, economy, etc.), and seven possible risk perception dimensions used in the story (risk/benefit, voluntary/involuntary, etc). The national newspapers typically reported an environment issue paired with policy; local papers reported a single environmental issue. A Chi-square test found significant differences between national and local newspapers' use of risk dimensions. National newspapers focused on the voluntary/trust/man-made/risks/catastrophic risk dimensions; local newspapers focused on the control/familiar risk dimensions.

Susan Grantham

Blowin' in the Wind: How Collaborative Governance Communication Can Reduce Wind Power Siting Disputes in the United States

Renewable energy technologies must be implemented in order to reduce reliance on fossil fuels. Americans are unfamiliar with wind turbines and wind power farms. The physical characteristics of wind turbines make them visible and potentially noisy. Studies have shown that when a technology is unfamiliar, subjective risk perceptions occur. Unaddressed risk perceptions may lead to NIMBY (Not In My Back Yard) opposition. NIMBY opposition to wind turbine farms has resulted in litigation. Proposed wind power siting operations in the U.S. have been delayed, often by many years, due to drawn out legal battles (Cape Wind, Spring Valley). A communication strategy to identify and address risk perceptions, and thereby reduce lawsuits and expedite wind turbine siting, is collaborative governance. Collaborative governance includes participatory planning, negotiated rule making and facility siting negotiations. When these strategies have been used to reach consensus, opposition, has been reduced leading to a quicker permitting process.

Mirjam de Groot

From differences in opinion to explicit conflicts: The role of anger in people's participation in environmental social movements

Local citizens who collectively protest against changing management plans of a natural area can seriously delay or obstruct implementation. This study shows the role of anger as a motivator to actively protest against a plan to transform 300 ha of a 3km² forest area into heathland, in the east of the Netherlands. A written survey among 93 local residents shows that rather neutral actions such as discussing the plan and getting informed are primarily driven by the residents' vision on and identification with the forest. However, emotions such as anger evoked by the contested plans play a key role as a motivator for more negative actions, such as supporting the local action group. This anger plays a mediating role between people's visions on the management of the forest and their collective actions to alter the proposed changes in management of the area.

H

Per Haglind

How Swedish Wildlife Management is Coping with Reintroduction of Wild Boar (*Sus scrofa*)

When a new factor is introduced into a natural resource management system there will be new challenges for the actors within that system to cope with. In order to maintain the integrity of the system the actors within the system will need to change their actions. The Swedish wildlife management system is organized in such a way that the Swedish Association for Hunting and Wildlife Management (SAHWM), an NGO, is appointed to act as the body responsible for game management in Sweden. The SAHWM's mandate and modus operandi for changing the actions of their members is mainly through education and knowledge implementation. I will use the case of managing the growing wild boar (*Sus scrofa*) population in southern Sweden to demonstrate the possibilities and limits some key actors within the wildlife management system have experienced in attempts of changing actions through what has mainly been knowledge implementation and education

Lars Hallgren

Participating in each other's mind - Constructivity and destructivity in communication about the commons

Disagreement in natural resource management about e.g. values and knowledge creates a constructive potential for learning, development and change. However disagreement often evolves into a destructive process. In the paper the theories of communicative action (Habermas 1984), "dialogism" (Linell, 1995) and "Pluralistic agonism" (Mouffe 2000) are used to suggest a distinction between constructivity and destructivity. The analysis starts with the speech act, and moves from the micro level to more aggregated levels of communication in disagreements about NRM. A disagreement is constructive as long as the interacting actors increase their understanding of the intention and meaning of the other's action; thus not necessarily increased consensus on values, but increasing consensus on the meaning of symbols and gestures. The constructive-destructive borderline goes when the difference in meaning of gestures and symbols increases with further interaction. This view would build a bridge between the normative approaches "Pluralistic agonism" and "communicative action".

Lars Hallgren & Lotten Westberg

Discourse ethics enabling and inhibiting adaptive management, participation and conflict management - observations of communication practice in Swedish game management delegation

Contemporary natural resource management (NRM) is guided by three ideas: a) adaptive management, b) local involvement in decision making and c) conflicts should be handled through dialogue. These ideas have in common that communication turns out to be one of the thresholds determining whether management processes actually become adaptive, participative and successful in dealing with conflicts. The Swedish Game Management Delegations (GMD) were established in 2009 with the explicit aim to reduce conflict by creating adaptive, more local management. In this article we use the concepts "discursive opening" and "discursive closure" to analyse communication to identify opportunities and hindrance for adaptivity, participation and conflict management. We observe that the validity claims presented are not evaluated in a communicative rational way. Our conclusion is that the communicative practices in the observed meetings in the GMD prevent management from being adaptive and participatory, and disenable conflicts to develop in a constructive direction.

Philip Hammond

Therapeutic redemptions? The secular eco-apocalypse in environmental advocacy films

In a report of a new research project investigating the meanings of environmental advocacy representation and audience interpretation, we present our critical and contextual approach to the analysis of films addressing the issue of climate change and the use of the apocalypse as a narrative device. Making use of object relations psychoanalytic theory, we analyze these films in their political and cultural, historical contexts. Our principal claim is that the discourse of eco-apocalypse provides a focus for anxiety about a historical loss of modernist

political subjectivity. While the project encompasses audience and production research, our argument in this paper is based on detailed textual analysis and an analysis of post-Cold War political change.

Robert Hamrén

Narratives and Websites in the Construction of the Environmentalist Activist

This paper concentrates on the climate activist network Klimax. In Sweden, Klimax functions as a loosely-organized left-wing group which uses its website to coordinate direct action meant to slow down and, hopefully, end the ecological degradation of the world. Their present focus is on direct action sources of carbon emissions – cars, airplanes, meat factories, polluting industries. Actions often involve “invading” commercial spaces, seeking to redefine their meaning by use of disruptive slogans, performance art, even invitations to sport and food. Their website, in turn, narrates each action, with well-chosen texts and pictures, stories of valor, opposition and evil. Insofar as New Social Movements involve, above all, struggles over meaning, Klimax’s narratives and pictures document attempts to change the meanings of the spaces involved – be they bill-boards, supermarkets or industrial sites. This paper looks at how this is done in Klimax actions performed 2009-11. What types of alternative spaces are presented; can they be understood as commons? How, finally, does space-based activism combine with website pictures and narrative to facilitate challenges to dominant meanings?

Hans Peter Hansen

‘Dialogue for Nature conservation’

Over the past decade, various experiments within the field of NRM and community development have been proposed, both within and outside of Sweden. The ambition of these experiments has been to repair people’s detachment from policymaking and increase the potential for community driven participatory processes. Partially in response to this pressure, Naturvårdsverket (SEPA) launched in 2007 an initiative called ‘Dialogue for Nature Conservation’. The program can be seen as an attempt to change from the traditional and instrumental legitimacy-strategies of public institutions toward a more communicative and deliberative strategy. It is described as a program of ‘Skills development in dialogue, local participation and management, and conflict management within nature conservation and the management of natural resources’. So far more than 500 Naturvårdsverket employees have been through the program. This paper describes the background for this program and the various understandings of purpose as it has been interpreted by the key actors.

Hans Peter Hansen

Environmental communication – From a discipline of crises to studies for hope. A critical theoretical perspective on EC

This paper will critically examine a number of understandings of environmental communication (EC). After discussing the role and position attributed to EC as a discipline of crises the author aims at conceiving of EC as the study of hope. In doing so the paper places the study of EC within the wider context of democracy and participation theory. For its critical theoretical purposes the paper brings into the discussion the work of Carole Pateman and Jürgen Habermas to give a historical theoretical overview on the term participation and democracy and discusses the different perspectives on participation and democracy from a theoretical point of view.

Hans Peter Hansen & Nadarajah Sriskandarajah

Social & Political Legitimacy of Nature Recourse Management - The Creation of Community Agoras in Rural Sweden

One of the main pillars of the European Water Framework Directive (WFD) is public participation (PP) and the establishment of local so called ‘Water Councils’ (WC) has been introduced as a governance tool for the implementation of WFD. Simultaneously the lack of experience with PP within the existing water governance regime has created a very instrumental and legitimacy approach to WC. Departing from the definition of PP in the guiding documents supporting the WFD, we argue for a much more comprehensive role and function of PP based on deliberation and social learning. From this perspective WC should be seen more as public democratic

agora's for deliberation on sustainable development and generators for the development of visions for the future and subsequent implementation on a practical and local level. In this panel we will present the result of four years of collaboration with a local Swedish Water Council and the development of local democratic agoras.

Luis Hestres

Preaching to the Choir: Internet-Mediated Advocacy, Issue Public Mobilization and Climate Change

Despite their impact on American politics over the last decade, we still know relatively little about how Internet-mediated advocacy organizations influence policy. This is perhaps even truer for Internet-mediated issue specialists that focus their efforts on a single issue such as climate change. Based on semi-structured interviews with key staff members of two climate change advocacy campaigns and supplemental materials, this paper examines these Internet-mediated issue specialist organizations to understand how they communicate about climate change, how they mobilize citizens to take action, and the underlying assumptions behind their strategies and tactics. The paper aims to expand our understanding of how certain types of Internet-mediated advocacy organizations can influence policy battles by mobilizing like-minded issue publics, shifting policy debates to more favorable public arenas, and reframing issues in ways that are more favorable to their causes.

Matthew Hoffman

A Voice in the Wilderness: Cultural barriers to land use planning as deliberative democracy

The provision of landscape-level public goods such as wildlife habitat requires coordination among many landowners and can be inhibited by problems of collective action. The point-of-departure for this study is a survey revealing widespread support for habitat protection in a Vermont town (USA) and indicating a willingness on the part of landowners to commit to this goal in the context of a mutual agreement. Shortly after the survey was completed, the town planning process, which might have seemed an ideal opportunity for discussion of and commitment to shared goals, became the object of an impassioned opposition that succeeded in blocking the new conservation-oriented town plan. In order to understand the failure of this deliberative process, an in-depth case study was conducted over a one-year period, involving participant-observation, attendance at public meetings, and unstructured interviews.

Jesper Holm & Pernille Almlund

Post Rio Communication Styles for Deliberation - between individualization and collective action

The communicative turn in planning, multi-layered governance and governmentality are analytical concepts from various school of thoughts to comprehend the emergence of new types of public-private politics when it comes to complex, wicked issues such as sustainability or the 3rd wave of public health: health promotion. The paper explores a research approach to compare two different policy communication tracks in order to conceive various impacts on deliberation. The tracks are constructed along the the narratives individual-collective & consensus-conflictual in the discursive framing of political communication. We build an ANT inspired methodology and look into two simultaneously evolving political agendas during the last two decades - sustainability and health promotion - that have framed communication efforts, campaigns and politics in general. How is public participation and deliberation understood in the two policy tracks along historical stages? When is governmentality politics by deliberation for individual or collective action a winner or a loser?

Sara Holmgren

The forest kingdom –with values for the world? *Construction of objects, subjects and practices in the Swedish climate-forest policy interface*

Swedish forests have been tied to international developments for centuries through export of various forest products. The current global trends imply that the Swedish forest sector is in a stage of transition, where forests are increasingly linked to energy, climate- and global land use issues. As a response to these challenges, the Swedish government has launched an action plan, The forest kingdom – with values for the world, aiming to strengthen the Swedish forest sector on a global scale. Based on a discourse analysis of documents associated with the action plan and the institutionalization of the forest-climate interface in Swedish forest policy, the aim of this paper is to explore the construction of objects, subjects, and activities represented in

these policy texts. The results are expected to illustrate how Swedish forest policy is reformulating itself in a context of increasing demands on forest resources and global discourses on climate change.

Chao-Ping Hong

Communication Strategies with Video Clips in Online Environmental Campaigns

In communicating about environmental issues, the challenge is to transfer concepts into original and attractive messages to mobilize target audiences. Communication strategies online are changing and reshaping the dynamics and formations of collective actions regarding environmental issues.

In 2011, Greenpeace launched an online protest campaign against Volkswagen with the use of video clips, framing and portraying the dark force versus the Jedi in Star Wars, presenting an 'evil', 'un-green' organization and inviting participants to join the campaign. This paper aims to use multiple case studies of online environmental campaigns launched by NGOs/grassroots, governments, or organizations which incorporate video clips as one of the communication strategies to communicate the essentials of environmental awareness and to stimulate audiences in taking actions. Analysis will be drawn by focusing and discussing on the role of the video clips, the themes, metaphors, and representations of environmental issues, and most importantly, how communicating with video clips in online environmental campaigns might have an impact on the participation and feedback from the target audiences.

Cristi Horton, Markus J. Peterson & Neal Wilkins

Wildlife Scientists and Conservation Policy: Communicating in the Dual World of Scientist and Advocate

Wildlife conservation policy is a mixed bag of biological and sociopolitical dynamics that lead to management decisions that impact society. Wildlife managers find themselves negotiating the roles of providing objective information about the natural world and implementing conservation policies. Some have contended wildlife scientists should limit their professional statements to those grounded in biological science. We argue this is an inappropriate stance because managers are engaged in normative science and conservation policy relies on sociopolitical structures. To identify the factors managers consider to determine the role to take, we conducted a content analysis of refereed journal articles in Ecology, Wildlife, and Conservation Biology publications. Our results indicated wildlife managers are ill prepared to negotiate the challenges faced when biological science fails to tell them how to decide among competing values. We conclude by recommending a set of best management practices for effectively negotiating the dual roles of scientist and manager.

Rowan Howard-Williams

Challenging Modernity: Environmental Discourses of Earth Day 1970

The first Earth Day is widely seen as a turning point in the environmental movement. However, relatively little scholarship has focused on the event itself. This paper considers the major discourses surrounding the event, from four major sources: the central organisers and political leadership, a local organising group, handbooks for activists produced by environmental organisations, and media coverage of the event. While the Earth Day celebrations enjoyed a broad level of public and political support, it was not the unified and inclusive event it is sometimes depicted as today; its impact broadened in part by the lack of any significant oppositional discourse. However, a striking feature of the environmentalism of Earth Day, now less common in mainstream environmentalism, was how open and forthright its leaders, supporters and participants were about the failure of modern institutions and the need for radical institutional change.

Helen Hughes

'My backyard is everybody's backyard'. The cultural coding of backyards in audiovisual responses to *Gasland* (Josh Fox, 2010)

Gasland (Fox, 2010) is famous for its images of flammable water pouring from the faucets of US citizens affected by the development of 'fracking', a technique to extract gas from shale. Using this image, Josh Fox argues that his 'backyard', land owned by his family, is 'everybody's backyard' and that the federal state is responsible for protecting it from development to maintain clean water for the future. This paper reports on the impact of this film on energy debates and, drawing on recent papers on collective thinking (Mercier & Sperber, 2011), explores the ways in which sponsored films such as *Truthland* (2010), and *The Grand Energy*

Transition (Mellott, 2012) attempt to oppose its strongly culturally coded understanding of both individualism and collectivity, rooted in alternative political movements in 1960s America, and enshrined in the Clean Air Act, the Clean Water Act, and the Safe Drinking Water Act during the 1970s.

Kathleen Hunt & Nicholas S. Paliewicz

“Are you listening?!”: Indecorous Voice as Rhetorical Strategy in Environmental Public Participation

This essay calls for a revival of indecorous voice in environmental public participation. Originally presented at the fifth biennial COCE, Robbie Cox explicated the means by which low-income and minority members of the public are discursively excluded from U.S. public forums. We argue, however, that publics whose participation may already be limited can still enact micro-performances of resistance through the creation of kairos, that is, challenging decorum through timely intervention. Publics in Love Canal, New York, and Salt Lake City, Utah indecorously disrupted institutional constructions of decorum. By shouting, clapping and cheering, and sitting in silence, participants created kairos. These micro-performances of resistance express public frustration with exclusionary practices, demonstrating the “inventional possibilities” (Stoneman, 2011, p. 130) for public participation in institutional settings.

Madeleine Hurd

Landscape, Place, and Exclusion

This paper explores how the presentation of iconic landscapes as national commons can be used to define the nation’s legitimate inhabitant. In European right-wing websites, the constant representation of “Swedish”, “English”, or “French” landscapes translates into the premise that only the Swedish, English, or French belong there. It is *their* commons, *their* nostalgic childhood home, *their* primeval, male-producing wilderness, female, virginal or fertile - and in need of bodily protection. Just as the harmony and beauty of local biotopes should be protected against invasive plants and animals, or the rape of international capitalism, so should a national landscape, the virginal maiden or affectionate wife of national culture, be protected against invasive immigrants. Iconic images spread in mass media, not least through proud, nostalgic and/or nationalist websites, are used to reinforce right-wing environmentalist arguments that “our landscape” and “our culture” are indissolubly married – and must be protected against all comers. This paper examines how this is done.

Karen Hutchins et al

Building Adaptive Capacity through Collaboration: Co-Developing Best Management Practices (BMPs) for Municipal Road Salt Application

Road salt is widely used in Maine to manage snow and ice during the winter months. Despite efforts to reduce salt use, chloride concentrations in Northeast streams, rivers, and lakes are increasing. Recognizing the potential social-ecological costs of road salt, a group of municipal and state agents, researchers, and consultants formed the Maine Salt Management Taskforce and initiated a stakeholder-driven scoping project aimed at assisting decision-makers with the development and implementation of road salt best management practices (BMPs). Drawing on communication research addressing public participation in science and policy and community-based participatory research, we present our initial analysis of factors that influenced the development and intended adoption of statewide BMPs. We further describe how approaching the collaboration within a collaborative learning and capacity building framework promoted an atmosphere of mutual learning among diverse and sometimes divergent partners and improved the alignment of the research process with taskforce needs.

J

Ann D. Jabro

An International Investigation of Pesticide container Recycling Programs: Is there a Best Practice?

The regulation of pesticide waste disposal falls under the jurisdiction of the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA) and various state laws. If the law is violated, the applicator can be fined. The Environmental Protection Agency has launched a strong information campaign to inform applicators that legal,

responsible and cost efficient means have been designed for pesticide disposal. This research effort reports on the pesticide container recycling programs around the globe and seeks to determine the similarities and difference across programs and identify and generate the “best practices”.

Thomas Jabro

The Efficacy of Conservation Programs and Practices at an American University

This research will utilize the case study methodology and is designed to investigate and analyze the various practices of sustainability and conservation on an urban college campus through a return-on-investment perspective. Initial information will explore and reveal the efforts to communicate and execute conservation and sustainability practices at the university. The next component of the analysis will explore the effectiveness of exposing and engaging students through awareness and behavior modification campaigns. These programs and practices, which are run either through the administration or student body or both, require initial personnel and financial investments, and these investments can be analyzed to determine whether programs are successful based on the advocacy or the achievement of particular goals. Based on the performance of the programs and practices, it can then be determined if there are responsible initiatives and whether changes are needed, so that funds and resources can be spent more effectively.

Debra E. Jenson

Dinosaur Dammed: A Historical Analysis of the Fight to Save Echo Park

In the post-WWII period the demand for water in the American West reached a pitch that could not be ignored. Federal agencies hatched a plan to harness the Colorado River through a series of dams stretching from northern Colorado to Arizona. Almost from the moment it was first proposed there was opposition to the Echo Park dam because it was located inside a national monument. More than 50 years later, this controversy seems to have faded, although historians agree that this fight—the first to see multiple groups join together to successfully influence public policy—is the birth of the modern conservation movement. This paper uses the official publications of the National Parks Association, the National Wildlife Federation, and the Sierra Club—three key, yet diverse conservation groups—to analyze their coverage of the fight against the proposed dam from 1950 to 1956 (the years surrounding the legislative debate).

Anna Maria Jönsson

Environmental Governance, Communication and Virtual Public Spheres

Using the social network Facebook and the virtual world Second Life as examples, this paper analyzes how spaces like social media and virtual Internet worlds can be used as platforms for communication on environmental issues like climate change, whether what is going on at these sites can be understood as alternative public spheres and if they show any deliberative potential. The paper concludes that these online communities do offer alternative venues for communication, are more inclusive and accessible than mainstream media, and give some expression to the idea of a global citizenship. In this respect, these media can be seen as alternative public spheres. However, since these arenas are open to (almost) everyone but not used by everyone, they still only have deliberative potential.

K

Florian Kaefer

Reputation at stake? Examining the perceived credibility of New Zealand’s ‘clean, green’ global environmental positioning through analysis of news media discourse

For the last two decades, New Zealand has relied on the slogans ‘clean, green’ and ‘100%Pure’ to sell its natural products and to attract overseas visitors, the main pillars of its economy. In recent years, those environmental credentials have been put into question, attracting unfavourable media coverage both at home and abroad. For example, while New Zealand was among the first to agree on a carbon emissions trading scheme, subsequent governments have since shifted priorities, putting the country’s perceived climate leadership at stake. Qualitative research software NVivo10 is used to analyse relevant UK, US and Australian news discourse

in order to gauge the perceived credibility of New Zealand's green reputation overseas. The proposed poster will present first results of this Royal Society/Marsden funded PhD project, offering unique insight into New Zealand's 'green' place branding efforts and international media response.

John Kellas

Information Visualisation. Volumetrics, carbon comparison and visual comprehension

Based on my work project managing the development of 'This Equals'- Environmental Educational Software (free online app nearly at prototype stage), and my 'visual code' dissertation focus for my Community Education (Msc), I am have insight into the visual dimension of Environmental Communication which I would like to share. The Poster will map key discursive terrain of the Environmental Education Information Visualisation field; and provide a range of visualisation examples. Using examples from my research, I will depict the difference between written text, number, graphical, iconographic, symbolic, volumetric and comparative visual presentation. I will also pose questions about the accessibility of the different modes of communication. I will also include screen shots of of the pioneering software I have been developing in conjunction with Edinburgh university Informatics and Design departments. This software should have completed testing phase and be available free online by the time of the conference.

Miriah Russo Kelly

Making Sense of Climate Change Resilience: Growing Trends, Diverse Definitions, Key Indicators, and Applications to Coastal Communities

The age of climate change is full of theoretical frameworks and concepts that attempt to make sense of how we might begin to respond to impacts related to climate change. Resilience theory offers yet another approach to climate change decision-making. But what does it mean for coastal communities to be resilient against impacts related to climate change? What makes resilience theory different from other conceptual and theoretical frameworks like vulnerability, adaptability, and sustainability? How does a community know if they are resilient? And, how can communities transform resilience theory into practical application? In this paper I define the construct of resilience specific to socio-ecological systems and within the context of climate change, identify differences between resilience and other related theories and concepts, and discuss indicators of resilient systems. Interviews with a number of coastal climate change researchers and practitioners reveal how resilience theory is applied and how it can be further used to improve management decisions.

Brenden E. Kendall

The Sublimation of Ethics in Sustainability Advocacy: A Case Study of Metacommunication at a University's Office of Sustainability

This interpretive case study of a university's office of sustainability addresses the treatment of ethics in the course of advocacy. Sustainability advocates in this case engaged in metacommunication that limited, diminished, or sublimated ethics-related messages in the course of sustainability advocacy. In particular, ethics was framed as personal, divisive, or context-dependent and thus a threat to the effectiveness of participants as sustainability advocates. As a result, participants in the office's efforts, while deeply committed to sustainability as a normative and ethically-loaded concept, were reluctant or resistant to communicating ethics when promoting sustainable change within the organization. The relevance of these findings to sustainability officers is discussed.

William J. Kinsella, Ashley R. Kelly, & Meagan Kittle Autry

Articulating Resistance to Nuclear Power: Local Tactics and Strategic Consequences in a Nuclear Construction Financing Controversy

This paper examines the efforts of individuals and advocacy groups seeking to influence a state utilities commission's decisions regarding a nuclear construction project in the Southeastern United States. Extending an argument from Cox (2010), we argue that such local engagements have wider significance as the nuclear industry seeks to expand its role in the US and globally. Utilizing participatory field work and analysis of public documents, we apply the concept of rhetorical boundary work to examine two challenges faced by opponents of the project. First, the commission's regulatory mandate is limited to economic risks rather than

environmental, health, and safety risks, constraining the rhetorical themes that can be utilized effectively. Second, as is often the case in energy and environmental advocacy controversies, expert authority is privileged over local, vernacular arguments. We explore the rhetorical negotiation of these boundaries, the effects produced, and their implications for national and global environmental governance.

Gabriella Kiss

Fair and competent referendum? Case study on referendum in decision making of wastes in Hungary

After a participatory decision making process it is an adequate question whether the participants were satisfied with the result of the decision and with the whole participatory process. In the literature of public participation on environmental issues the main criteria for evaluating participatory decision making processes are fairness and competence (Webler, 1995). Using the traditional tools of direct democracy as referendum, which is one of the most commonly used tools in Hungary especially in waste management, fairness and competence raise many questions and doubts. One of them is whether the participants were satisfied with decision and the whole process. A good participatory process can be identified as the participant contented with the process (Tuler & Webler, 1999). In this paper one referendum is analysed from the participant point of view in a Hungarian waste management facility siting case. The main question of the analysis is the appropriateness and the acceptability of referendum as a participatory decision making tool.

Daniela Kleinschmit & Viveca Sjöstedt

Framing the forests in a changing climate: a comparison of the media perception in Sweden and Finland

Forest policy has to challenge the effects of climate change. The Kyoto Protocol became legally binding in February 2005 (UNFCCC, 2005) with the goal to stabilize the atmospheric greenhouse gas (GHG). This goal can be achieved by reducing GHG-emissions but as well by using biological sources as a sink. Thus, framing forest as a sink leads to the argumentation of afforestation, reforestation and improvement of existing forests in forest policy. The mass media is an efficient way for stakeholders to express their own perception of forests in relation to climate change and in this way to shape the broader public discourse. Additionally the communication through the mass media is often regarded by stakeholders as a chance to influence political decision makers. Therefore the major research questions of this paper are how the forest is framed in the context of climate change in the national media, if the framing changed over time and if it is similar in the Nordic countries. Additionally the question of who are the dominant actors taking a role in the framing is answered in this paper. The results base on a comparative analysis of articles published in Swedish and Finnish quality newspapers between 1992 and 2009.

David W. Knight

Experiential Programs for Educators: A Case Study on Coastal Policy Communication in Cebu, Philippines

Optimizing citizen engagement for coastal policy implementation is an ongoing, ubiquitous challenge for local governments. This case study describes a recent project in which an experiential learning program for educators was piloted as a coastal policy communication tool in the Municipality of Santander, Philippines. The process of program design and implementation allowed over thirty educators to collaborate with local policy makers and fish wardens while learning about salient coastal policy issues in their community. Project outcomes suggest that experiential learning programs for educators could drastically improve the policy communication efforts of local-level governments, leading to an increased passion for, awareness of, and engagement in community-based coastal resource management among citizens.

Enale Kodu & Aniefiok Udoudo

The Coverage of environmental clean-up in Ogoni land by select newspapers in Nigeria

The report of the United Nations Environment Programme (UNEP) on oil pollution in Ogoni land of the Niger Delta was released in 2011. The report which was a follow-up to appease the Ogoni people on the sour relationship between the Ogoni and Shell Petroleum Development Company, recommended a total clean-up of Ogoni environment which could take up to ten years. Since the Ogoni seem to reject UNEP'S report, the study investigated the contributions of the newspapers in the country to the awareness-creation on the planned clean-up. Two national newspapers and Rivers State owned newspaper were purposively selected for the

study. The timeframe for the study was between 1st January and 31st December, 2009 when UNEP carried out its study of the environmental pollution in Ogoni land. The objectives of the study were to: i) find out the level of contributions of the select newspapers to awareness-creation on environmental clean-up of Ogoni land; ii) find out if actually the government used the newspapers paid announcements to enlighten the Ogoni people on the environmental clean-up of Ogoni land; iii) find out the reaction of the Ogoni people through the select newspapers to the planned environmental clean-up; and iv) find out the prominence given to the planned environmental clean-up of Ogoni land by the select newspapers. Content analysis was the research design adopted by the researchers for the study. The study found out among others, that the newspapers collectively published 0.51 item daily on the planned environmental clean-up. Though this is not up to one item per day, the newspapers could not be held responsible for lack of awareness among the Ogoni people, if the current situation is due to lack of awareness. Among others, it is recommended that newspapers in the country should give more coverage to the planned environmental clean-up but that more of group discussion could yield better understanding among the people.

Pietari Kääpä

Transnational ecocinema and audience studies: case studies from China and Finland

Considering the potential of audiovisual media to capture the transnational and even global scale of environmental problems, and engage with them in a way that reaches global audiences, studies of the actual responses and uses of ecomedia by audiences become vital. The challenge to homogenized or theorized reading publics is made more explicit once we take into account the major role cultural specificity plays in audience responses. This paper implements a transnational approach to studying the reception of ecocritical media, focusing on the cultural negotiations pertaining to reading strategies and mobilization of ecological concerns. I interrogate the viability of Ursula Heise's concept of 'ecocosmopolitanism' in audience research. The need to operate at the intersections of the local and the global is key to providing more complex readings of the uses of ecomedia. Yet, notions of circulation and adaptation necessitate adopting even more critical forms of transnational exploration to understand how local concerns are made planetary and ecosystemic notions are 'culturalized' in local contexts. Case studies of from China and Finland are used to illustrate these concerns.

L

Anne-Mette Langvad

Pathways to Sustainable Development: How Power-Knowledge Transforms Institutions in Land-Water Management

In policy and theory sustainable water governance is increasingly seen as processes of experimental learning in public collaborations. However, a number of case studies report on persisting difficulties with implementing collaboratively agreed measures in practice. On the basis of a longitudinal real-time process study of public collaboration for sustainable change in a Danish sub-catchment setting, this article identifies perceived scientific, political and economic uncertainties as primary barriers to the implementation of agreed measures. Each of the involved individuals bring into the public space of social learning different theoretical, functional and practical knowledges, that in turn influence how uncertainty is coped with contextually. By analyzing the dynamics of knowledges with perceived uncertainties and lack of action, the article provides a deeper understanding of governance in complex social-ecological settings.

Anne M. Leitch, Gail Moloney & Anthony M. Ryan

Whose knowledge counts and what counts as knowledge in responding to climate change? Content analysis of narratives of climate change adaptation

Climate change – as a post normal problem characterised by high levels of complexity, uncertainty, decision stakes and intractable political conflicts – requires knowledge that goes beyond that offered by science. It is clear that effective climate adaptation policy will need to draw upon many forms of knowledge such as community values, uncertainty and the plurality of different perspectives that goes beyond knowledge traditionally offered by science. An important political dimension in the climate change domain is the

increasing tension between knowledge of expert/scientific communities and the lay community. Understanding more about how knowledge is used in decision making for adaptation will assist in development and communication of more socially accountable solutions for climate change.

In this paper we explore the knowledge evoked by different social groups when they consider adapting to climate change. An online survey instrument was administered to three populations of respondents; attendees at an international conference on climate adaptation; an Australian government department, and an international online survey. Around 1000 narrative fragments collected through the online Sensemaker survey of people's personal experiences of climate change were analysed with a particular focus on the types of knowledge invoked by individuals in discussing climate change. Using data collected from three groups we examine how these three types of knowledge are constructed in describing responses to climate change. We consider impacts for communication and conclude with suggestions for improving communication between these three groups. While, for that last two decades there has been a call for 'more and better' climate science; our findings support the notion that there is now a strong call for more and better communication of adaptation science.

Libby Lester

Trading on Emotion: Social License and Transnational Environmental Conflict

This paper's focus is the concept of 'social license' and its role in transnational resource procurement and mediated environmental protest. Drawing on the quarter-century political and social conflict over logging of Tasmania's eucalypt forests and Australia's recent resource export 'boom' more broadly, this research traces the emergence and embedding of the term within international trade, sales, and corporate and social responsibility endeavours. It then analyses its strategic deployment and media presence in recent environmental conflicts in Australia. It argues that rather than ending conflicts via negotiation and agreement, the term's openness to emotion-based values and ties exposes resource industries, international buyers and local communities to continuing conflict over their activities. When carried transnationally as media images, stories and campaigns, the emotional aspects and conflicts that exist behind the term can either be brought to the fore and magnified, or suppressed, and the concept of a 'social license' becomes a site for conflict in itself.

Xinghua Li

Eco-Jokes and Their Relation to the UnCO₂ncious: Larry David's "Curb Global Warming" Campaign and Other Environmental Comedies

In *Jokes and Their Relation to the Unconscious* (1905), Freud posits that jokes are not manifestations of joy, but mechanisms to release anxiety. This paper uses psychoanalysis to analyze the eco-jokes in popular culture and examines their relation to the (apocalyptic) anxiety underlying the climate change discourse. I focus on Larry David's comedic speech at the 2005 TBS "Earth to America!" event and his "Curb Global Warming" sweepstakes campaign: David extends his selfish, irritated, and neurotic TV persona from *Curb Your Enthusiasm* to an environmental advocacy campaign and hopes to "get America laughing—and, more to the point, learning—about global warming" (Grist 2005). But, is climate change a joking matter? Do eco-jokes help the public better manage their anxiety and enable environmental actions, or, do they trivialize the issue of global warming and distance the public from the impending danger? I analyze the techniques and psychodynamics of eco-jokes and explore the potential of using comedy to increase public participation in environmental affairs.

Michael J. Liles

Hawksbill Regional Cup: shifting local discourse to save a species in El Salvador and Nicaragua

Sea turtle eggs in low-income regions are often viewed by local residents as an economic resource, where conservation initiatives must offer a higher economic incentive for protection than would be received from other uses. This is particularly true for hawksbill eggs in El Salvador and Nicaragua; conservation legislation formed by top-down, non-participatory measures has failed to protect hawksbill nests. However, the purchase of hawksbill nests for protection is financially unsustainable and does little to foment a local conservation ethic. To add non-economic values to hawksbill eggs, we initiated the Hawksbill Regional Cup, a friendly competition where the hawksbill nesting season represented the "final match" between El Salvador and Nicaragua to determine which "team" could score more "conservation goals." This paper discusses how the Hawksbill Regional Cup has enhanced stakeholder participation in nest protection activities, facilitated experience-

sharing among egg collectors, and shifted local discourse on hawksbill conservation from purely economic terms.

Alon Lischinsky & Annika Egan Sjölander

Corporate Voices in the Public Sphere: Discourse on Sustainability and the Environment in Press Releases

In this project, we provide an exploratory description of how the largest Swedish corporations seek to influence public perception via news media regarding their behaviour and environmental impact. We focus on the corporations' environmentally-themed press releases over a period of a year. Our purpose is to shed light to the kind of messages that are conveyed in these texts and to analyse how this type of strategic communication, primarily framed for journalists and newsrooms, is used by large multinational companies with significant impact on the environment. Our theoretical and methodological approach is rooted in critical discourse analysis. Traditional tools from quantitative content analysis are also used. The corpus comprises all press releases issued by the largest 15 companies traded in OMX, the Stockholm stock exchange, a total of 275 texts.

Magnus Ljung & Jenny Höckert

The didactics of environmental advisory services to farmers

Farmers, in their operational planning, have to relate to different types of consultancy, conducted by various actors, such as production advisors, veterinarians, environmental inspectors. We know that especially the economy and production advisors represent important working relations for the farmer. The environmental advisors have another relationship to the farmer, due to the imposed policies affecting farming, creating specific communicative challenges. Environmental issues for the farmer are mostly place-based, and it is within their unique landscape where the adviser and farmer through conversation create a common reference. A complicating fact is that there are many different environmental issues to handle, f.i. nutrient, pesticide and biodiversity management. We know little about the communicative strategies applied when involving farmers in different environmental issues, as well as the specific pedagogical demands needed (i.e., didactics). This paper critically discusses the different didactics in use among environmental advisors when trying to enable learning and motivate action.

Valeria Llano-Arias

Struggles for water: communication and citizen's participation in Colombia

Public communication and communication for social change actions have been implemented by different struggles for the defence of water in Colombia, to gain citizens' support, and raise their awareness about the water crisis locally and globally. This paper analyses the extent to which participatory and public approaches in communication have influenced the exercise of democracy and the way of doing politics in Colombia. In spite of the 'traditional' political competition in the country and the historical apathy toward political participation, the strength of the unifying message of water as a matter of public concern have connected different social groups. Communication for social change and public communication have pushed many people to engage directly in political and mobilisation actions; the global objective of the defence of water has been locally adapted by citizens according to the relevance of the topic to their regional problems.

Edward Lorenz & Micheal Vickery

Thinking Locally, Acting Globally: A Way to Redefine Commons

This study examines the efforts of St. Louis, MI, USA to recover from profound environmental contamination by Velsicol Chemical Company, a manufacturer of DDT, fire retardants and other products. In particular, the study focuses on the public struggle to resist efforts by the international pesticide industry to discredit the community's direct participation in technical and political decisions regarding whether and how DDT would be cleaned from the community's land and water. The discursive and organizational practices through which this struggle has been enacted reveal much about the conflicted values and competing goals that constrain public efforts to mitigate environmental harms, and about the internal and external conflicts between stakeholders --- both inside and outside a contaminated community -- that make very difficult the achievement of environmental remediation efforts that are technically correct, economically viable, politically acceptable, and environmentally just.

Cecilia Lundholm & Christian Stöhr

Participation, learning and sustainable fisheries: the case of co-management at lake Vättern, Sweden.

Fisheries management in many countries is increasingly driven from the insight that the classic top-down decision-making governance model does not lead to sustainable fisheries. Instead, more inclusive forms of governance are needed that allow for increased stakeholder participation and joint capacity building. Platforms for dialogue, and the exchange of knowledge are seen as one tool to integrate different knowledge systems such as science and the local knowledge of fishermen. In this article, we examine the Swedish Co-management Initiative at lake Vättern using an integrated version of Plummer and Fitzgibbon's 'Adaptive Co-Management' and Senecah's 'Trinity of Voice'. The results show that participating actors were successful in developing trust and enhance learning. Attention to 'access' and 'standing' as in skilled facilitation was key to achieve these results. The article provides insights that enhance our understanding of learning in conflicted contexts and helps practitioners in designing and institutionalizing learning platforms in other contexts.

Gesa Lüdecke

Communicating the Benefits of Acting Sustainably: Can Media foster Participation in Climate Protection?

Tackling sustainability and climate change issues requires change at every societal level. Reflecting on public discussions about sustainability and climate change in Germany over the past 2 decades, the individual level for taking action has scarcely been considered within this context. Besides political efforts to achieve technological and entrepreneurial modifications towards sustainable production, education of the population is also necessary to attain sustainable consumption. Beyond educating instances (e.g. school, family or friends), media are particularly discussed as a socializing instance for shaping individual values and orientations towards sustainability. But can they furthermore promote incentives and motivations to act sustainably? It is therefore necessary to investigate media communication patterns that either facilitate or hinder opportunities for individual participation in sustainable developments. The presented poster therefore stresses the question, how media coverage on sustainability issues can impact young people's actions regarding sustainable behavior. Empirical results of my dissertation will thereby be highlighted.

M

Tek Jung Mahat & Asha Kaji Thaku

Green Economy for Sustainable Mountain Development

After more than four years of intensive discussion on this topic, finally the Rio+20 Conference in June 2012 has formally accepted the concept of 'green economy' and presented it as future development pathway. As the concept is relatively new and available literatures are focusing mainly issues in urban context or those of the developed world, it is importantly to translate those ideas making suitable for developing economies, especially developing landlocked and mountainous countries, where we find very different geography, resource realities and pressures defining and somehow limiting scope of growth, mobility of people, and other choices they make. This poster plays with these fundamental resource realities, human needs and available low-cost technologies in the context of highland areas and tries to show how communities living there can make socio-economic and environmental choice of development without compromising with their needs and get connected with the rest of the world.

Tek Jung Mahat & Anja Møller Rasmussen

Communicating the Mountain Agenda in the Asia Pacific and Globally – From Rio to Rio+20 and beyond

The Rio Conference in 1992 made major progress in integrating social, economic and environmental pillars of sustainable development in the form of Agenda 21 apart from other conventions and declaration. Agenda 21, in its chapter 13, for the first time formally recognized 'mountain ecosystems' as a topic of critical importance and emphasized on role of information and knowledge management and watershed conservation to ensure sustainable mountain development. The same document highlighted the need of 'science for sustainable

development', 'promoting education, public awareness and training' and 'Information for decision-making' as means of implementation to achieve overall sustainable development. Following this, the International Centre for Integrated Mountain Development organised an Asia Pacific Regional Response to Rio Conference, also known as Sustainable Development of Mountain Areas of Asia or SUDEMAA, in Kathmandu, Nepal in 1994. The SUDEMAA conference recommended forming an Asia Pacific regional window to advocate for mountain issues in the region by promoting communication, networking and knowledge exchange whilst implementing pilot initiatives together with existing strong institutions like ICIMOD, universities and alpine communities. In response, the Asia Pacific Mountain Network (APMN) was formed in 1995, which is still functional with a number of services offered to its members and linking them with the global community through its global networks like the Mountain Forum, Mountain Partnership, and World Mountain Forum, among others. This paper reviews selected communication, networking and knowledge exchange related activities implemented by APMN, shares lessons learned and develops the way forward after 20 years of the Rio Conference. This year marked the 20th anniversary of the Rio 1992 conference in the form of United Nations Conference on Sustainable Development or Rio+20.

Bridie McGreavy et al

Building Capacity for Social and Ecological Resilience: Group communication and stakeholder engagement in a conservation action planning process

We use a community based research model to support the Frenchman Bay Partner's vision to sustain working waterfronts and promote ecologic and economic resilience of the Bay through conservation action planning. Through the study of communication, we aim to understand the complexity of collaboration, find ways to work through conflict, and improve decision making in this Bay planning process. We describe our model and share results related to group communication and the iterative phases of knowledge co-production with stakeholders. We emphasize the role of communication competence and the processes of language alignment across steering-committee and stakeholder group boundaries. Finally, we explain an emergent component of this research that intends to create space for dialogue between shell fishermen to foster collaborative management of intertidal resources. Our communication research seeks to contribute to the development of a shared vision and engaged community essential to the resilience of Frenchman Bay.

Bridie McGreavy et al

Charting a Course to Shellfish Sustainability: A collaborative learning approach

We describe results from a collaborative learning approach that sought to share information, provide standing and encourage listening between shellfishermen in Frenchman Bay in Maine. This project is part of an engaged research model to support the Frenchman Bay Partner's effort to foster a resilient ecology and economy in the Bay through a conservation action planning process. Through our communication research, in which we study group communication and stakeholder engagement, we identified an escalating conflict among mussel harvesters and clambers based on their mutual and sometimes conflicting uses of the intertidal mudflat resource. We provide qualitative results from the development and implementation of a collaborative learning session entitled "Charting a Course to Shellfish Sustainability". We highlight the process we used and specific outcomes related to the ways in which the group worked through conflict in the dialogue session and the implications for their ongoing participation as citizens of the tides.

Bridie McGreavy & Laura Lindenfeld

Entertaining our way to engagement? Climate change films and sustainable development values

How we communicate about climate change shapes our response to the most complex and challenging issue society currently faces. In this paper, we conduct a discursive analysis and ideological critique of stereotypical representations in three climate change films: *The Day After Tomorrow* (2004), *Sizzle: A global warming comedy* (2008) and *An Inconvenient Truth* (2006). We argue that these films situate their treatment of climate change in a narrative context that reiterates troubling stereotypes about race/ethnicity, gender, and sexuality. These representations do not align with key sustainable development goals such as equity, freedom, and shared responsibility. Our essay demonstrates how the stories we consume about climate change as we entertain ourselves potentially influence our sense of the world, guide our relationships to one another and impact our collective abilities to create a sustainable future.

Callum McGregor

Meta-learning in the U.K. environmental movement: cultural change theories and their pedagogical implications

The success of the environmental movement can partially be understood ideationally, in terms of the production of 'green knowledge' and its uptake in wider society. Nevertheless, a serious knowledge-action gap persists. Given this situation, the movement is undergoing a process of meta-learning through which the dynamics of cultural change become a substantive knowledge interest. Through this process, the concepts of values, frames and narratives are identified as orienting principles, which move beyond ethical imperatives based on cognitive rules and an appreciation of 'the facts'. This is explored through two interrelated case studies based on a critical engagement with literature produced by the ENGO coalition 'Common Cause' and the 'Transition Towns' movement. I conclude that whilst a more nuanced understanding of cultural change dynamics which includes tacit and affective elements should be welcome, overreliance on cognitive science and psychological insight raises questions around ownership of knowledge, as well as political coherence.

María Teresa Mercado & Angel. J Castañós

Controversy in Spain through the siting of its nuclear cemetery

On 30th December 2011 the Spanish Government passed legislation allowing the installation of a Centralised Temporary Storage facility (*ATC in Spanish*) for used nuclear fuel and highly active radioactive waste and its complementary technology centre in Villar de Cañas, a village with a population of 442 in the province of Cuenca. In 2010 a technical report placed other candidacies in a better position: Zarra (Valencia) got the highest marks, followed by Ascó (Tarragona) and Yebra (Guadalajara). The opposition of Valencia's regional authority and other setbacks nevertheless led the government to choose Villar de Cañas.

In the different regions where locations were proposed a large number of citizens' associations and groups demonstrated against the project, above all the Antinuclear Cemetery Group in Guadalajara (set up in 2005) and the Platform against the Nuclear Cemetery in Cuenca, made up of 49 associations of all kinds. This poster examines these people's demands channelled through mobilisation and participation on line, and their reflection in the media.

María Teresa Mercado & María Jose Pou

Media news frames and citizens' participation in the debate arising through the Spanish government authorisation to carry out oil prospecting in the Canary Islands.

The energy issue is a central point in the agenda of governments, scientists and ecological organisations. Surveys performed in Spain nevertheless reveal the majority's great ignorance as regards the degree of foreign energy dependence, countries supplying us with oil, sources and costs of electrical production, etc. These surveys also show that the media continue to be the main source of information for the people. We therefore feel that there needs to be a study on the news coverage of the energy issue in Spain in general, and specifically as regards the debate arising through the government's authorisation of Repsol to carry out oil prospecting in the Canary Islands. By analysing the content, the theory of framing and analysis of discourse, the aims of this research are to describe the media's news frames and publishing approaches as regards the subject mentioned and to analyse the role of citizens' participation in the debate.

Coralie Meurice, Pierre Fastrez & Thierry De Smedt

Assessing the cognitive autonomy of audiences towards environmental media messages

Environmental issues are the subject of an increasing appropriation by the public, primarily through media messages. In this context, the citizens' ability to adopt a critical stance towards these messages has become crucial. We study the factors that affect the citizens' critical judgment towards forest-related media. The research presented in this paper seeks to assess the individuals' degree of cognitive autonomy towards forest-related medias, and how it is influenced by their prior experience of forests. In this paper, we present a preliminary experiment requiring participants to read and react to three posters from different forest stakeholders. Fifty-two students (aged 16 to 20) from two schools, one rural and one urban, participated in this study. Results show that subjects had a limited cognitive autonomy towards the media that were

submitted to them, and that their degree of cognitive autonomy was not affected by their level of forest experience.

Josephine Mmojeje

The carrot or the stick approach? Effective Delivery of Behavioural Changes towards Energy Conservation and the Use of Renewable Energy in local communities

With the increasing threat to our global energy supply and our survival from anthropogenic pollution, a successful programme of sustained public engagement in matters of environmental conservation and use of renewable energy technology is the ultimate challenge facing environmentalists, today. The objective of the research was to provide guidance to enable environmental charities to formulate effective programmes which facilitate sustained behavioural changes. The study applied a formulated nine principle approach to effective engagement as the basis for future social marketing campaigns. The findings of the study revealed a number of factors, often not environmentally related, which were critical to the success of such a campaign which included, amongst other things, the following:

- More emphasis on tackling hard to treat properties and individuals experiencing fuel poverty
- Communication techniques which employ effects which are immediately tangible to the general public to secure buy-in.

Salma Monani

Film Festival Eco-imaginings and Practices: ImagineNATIVE 2012.

Much scholarship points to how ecological concerns are never far from indigenous struggles for political sovereignty and public participation. In this paper we turn to the indigenous film festival as a relatively understudied yet rich site to explore such ecological concerns. Specifically, we consider, the Toronto-based ImagineNATIVE, a prominent hub in the indigenous film festival circuit. Through examining the festival's 2012 film selections, we highlight films with explicit and less overt eco-activist messages. While the films themselves speak to eco-imaginings, we also draw from the festival experience to consider how the event itself participates in eco-sensibilities through its performative and embodied presence. In pairing festival observations with analysis not only of films but of website materials, reviews, and interviews with organizers and participants, we demonstrate how indigenous film festivals serve as alternative spheres for ecological participation, and raise ecocritical questions pertinent to film festivals more broadly.

Eric Morgan

Cultural Discourses of Water Rights in the Lower Rio Grande Basin of New Mexico

The Lower Rio Grande Basin (LRGB) is currently embroiled in a contentious adjudication process in order to determine the rights of water users in this portion of southern New Mexico. Annually, close to 300,000 acre-feet (approx. 100B gallons) are diverted to roughly 18,000 water-right claimants. This adjudication process has been in process for close to ten years, and is rapidly drawing to a conclusion. Using the ethnography of communication and cultural discourse analysis, the author analyzes cultural communication practices of water-users in the LRGB throughout the adjudication process. Key symbols surrounding "fairness" as they contrast with counter historical claims forms the core of the analysis.

Eric Morgan

Narratives of Wilderness: Constructing Advocacy through Stories of the Wild

Wilderness, as it is socially constructed, becomes a deeply felt cultural symbol that invokes and presumes diverse senses of place. Sense of place, for this project, is seen as in process and the product of communication, specifically narrative. This piece is a report of findings investigating sense of place as it manifests in wilderness narratives. Throughout a series of interviews with wilderness advocates in southern New Mexico, USA, stories of "wildness" and "wilderness" abounded. These narratives will be analyzed as cultural discourse with particular attention paid to how narratives construct contexts of advocacy. This analysis seeks also to provide suggestions for further research into deliberative processes concerning land use issues.

Jessica Moyer

Proof of Power: An exploration of clashing evidence-based claims in the A.N.W.R. Oil Drilling Debate

Building on the aim of critical scholarship to address inequality by problematizing the structures and practices that reproduce power, this paper examines the positions of the oil industry and mainstream environmentalists in the U.S. policy debate over whether to permit petroleum development in the Arctic National Wildlife Refuge (ANWR). I am particularly interested in how the groups' respective 'for' and 'against' campaigns are both overwhelmingly framed in materialist and scientific, evidence-based terms. As a result, the range of legitimate but competing perspectives, interests, and values that lie at the heart of this difficult issue have been obscured by righteous claims to truth and antagonistic accusations of ignorance. Through Critical Discourse Analysis (CDA), this paper unpacks the reductionist, technicizing, and polarizing rhetoric of dominant lobby groups on either side of the conflict, and uncovers significant moral, in addition to material, concerns underlying the debate.

Norbert Mundorf et al

Promoting Sustainable Transportation across Campus Communities using the Transtheoretical Model of Change

Single Occupancy Vehicle (SOV) transportation is a main contributor to climate change, among other detrimental environmental impacts. Communication and behavior change play key roles in commuters' transportation choices. The Transtheoretical model (TTM) of change is an innovative approach to changing sustainable transportation behaviors. A program of research was designed to promote sustainable transportation: (1) development of short, valid and reliable TTM measures, (2) geospatial modeling and policy evaluation, (3) brief video pilot study, and (4) a Computer Tailored Intervention (CTI) pilot study. In *Study 1*, (n=588) *Decisional Balance* and *Self-Efficacy* scales were validated, replicating hypothesized relationships to stages of change. *Study 2* assessed geospatial models and campus cultures across two colleges (n=1696). *Study 3* evaluated a video intervention (n=732) and *Study 4* evaluated a CTI in another sample (n=393). Both interventions increased readiness to change transportation behaviors. These studies support the utility of TTM tailored interventions to change sustainability behaviors.

Tai Munro

The Influence of Landscape Connection in Responding to Climate Change

Climate change photography relies heavily on the use of foreign places. However, there are increasing numbers of calls to connect climate change to local places and contexts in order to increase the salience of the issue for people living in nations that are not experiencing significant current events. Autodriven photo-elicitation was utilized with outdoor educators in Edmonton, Alberta, Canada to explore the local experience of climate change. The results reveal the importance of local places in connecting with climate change on a personal level. It also illustrates the challenge in connecting local places with a global commons.

Cecilia Mörner & Ulrika Olausson

Hunting Elk on YouTube: An Ecocritical Perspective on the Nature-Human Relationship in User-Generated Media

This paper studies environmental communication in user-generated media, focusing on videos about elk hunting on the video-sharing website YouTube. It is argued that websites such as YouTube among other things function as platforms for diverse ideas about man's relation to nature and that these ideas correspond to both academic and non-academic practices and positions within environmental communication at large. Additionally, the paper proposes a theoretical framework, ecocriticism, and methods for analyzing environmental positions and perspectives in user-generated films. Our preliminary analyses of samples of YouTube-videos demonstrates that YouTube contributes to establishing and maintaining ideas about what kind of place nature is in mainly three different ways: Nature is alternatively communicated as (1.) a domain for male locals; (2.) a playground for male tourists; (3.) the animals' territory.

N

Helle Nielsen

Public participation in Water Governance: Swedish Water Councils as Spaces for Social Learning and rethinking the Commons

In policy and theory sustainable water governance is increasingly seen as processes of experimental learning in public collaborations. However, a number of case studies report on persisting difficulties with implementing collaboratively agreed measures in practice. On the basis of a longitudinal real-time process study of public collaboration for sustainable change in a Danish sub-catchment setting, this article identifies perceived scientific, political and economic uncertainties as primary barriers to the implementation of agreed measures. Each of the involved individuals bring into the public space of social learning different theoretical, functional and practical knowledges, that in turn influence how uncertainty is coped with contextually. By analyzing the dynamics of knowledges with perceived uncertainties and lack of action, the article provides a deeper understanding of governance in complex social-ecological settings.

Simon Niemeyer & Julia Jennstål

Enhancing Capacity for Communication about Climate Change: A Deliberative Systems Approach

In theory there is much promise in harnessing deliberative approaches to facilitating communication on environmental challenges such as climate change. Deliberation is supposed to induce reflection on the issue at hand in ways that bypass any tendency toward short-term, inconsiderate impulses. There is a good deal of empirical evidence that deliberation serves well to open minds and create new spaces for communication on environmental issues. However, these examples usually involve very specific deliberative events involving small groups of citizens participating in facilitated discussion, or minipublics, as described by deliberative democrats. Deliberative communication on a larger scale is much more difficult to comprehend, let alone achieve. But evidence from these minipublic examples can help to inform the possibilities for achieving wide-scale deliberation, particularly when combined with a systems approach. This paper uses the example of climate change communication and draws on empirical evidence from social and personality psychology as well as small-scale deliberative experiments to develop a framework for understanding the relationships between context, motivations and capacity of citizens to engage in deliberative forms of communication. Context relates to the settings that structure the way in which communication takes place, including institutional and political settings. Motivation pertains to the factors that drive citizens to engage in authentic deliberation, as opposed to other forms of communication that do not involve reflection. Capacity refers to the ability of citizens to comprehend and reflect on the issues at hand. Deliberative capacity, we argue, is at least partly dependent on both context and motivations. Evidence from examples of minipublic deliberation will be used to demonstrate these relationships. We conclude by arguing that deliberative approaches environmental communication needs to be thought of in systemic terms — or as a ‘deliberative system’ — rather than as a specific program. Such a system, however, needs account for effects at different, but connected scales, from the individual to the community and polity as a whole. One important implication of our framework is that conceptualising environmental communication as part of a deliberative system, involving the interplay of context, motivations and capacity transforms the task of communication from message building to that of capacity building.

O

Ulrika Olausson & Peter Berglez

Towards a Renewed Research Agenda for Media Studies on Climate Change

This paper aims to outline a renewed research agenda for media studies on climate change. This field is rather young, and so far, researchers have primarily tended to analyse media content and – although to a much lesser extent – citizens’ representations of climate change in relation to media discourse. Thus, the field is still in the phase of mapping out media representations of climate change from various perspectives (scientific, democratic, political, visual, emotional, etc.). Admittedly, this is an essential task for obtaining basic knowledge on climate reporting and its implications, but the timely question now is how media research on climate change might theoretically and empirically evolve, and move into the next phase. In this paper, we identify four important research challenges which we believe should be considered by scholars in the field: 1) the practical challenge, 2) the normative challenge, 3) the discursive challenge, and 4) the interdisciplinary challenge.

Sebastian Olényi & Patricia Osseweijer

Sustainability as boundary object for food and biomass production. Criteria, perceptions, attitudes and buying behaviour towards a global concept

The project evaluates different concepts and priorities for sustainability criteria within industry and the deployed certification schemes, in comparison with consumer attitudes regarding sustainable food and biomass products. It analysis what kind of differences in communication and definitions of sustainability exists between these different actors and how sustainability is being operationalised. With a transdisciplinary approach and qualitative and quantitative research with focus groups, interviews and questionnaires, the main result will be a conceptualisation and visualization of those sustainability criteria, priorities and operationalisation of different stakeholders. The project includes a comparative case study with a cooperation with academic partners in Brazil. The paper and poster will present interesting results of the consumer focus groups and of 20 key industry stakeholders in Europe and Brazil of the food and biomass industry

Brion van Over

Cultural Discourses of Participation, Stewardship, and Community in the Marine Life Protection Act Process

The Marine Life Protection Act (MLPA) was passed by California legislators in 1999 under Governor Gray Davis. The Act mandated the development of a network of marine protected areas (MPAs) along the California coast that were supposed to be more effective at sustaining and conserving marine life than the existing ad-hoc arrangement of 80 MPAs that existed prior to the act. As it turns out, the "California coast" is not only a highly diverse marine resource, but is also home to a highly diverse group of "stakeholders" who perceive both the consequences of proposed implementations of the Act, as well as their own role in the public-participation processes used to develop these proposals, in strikingly different ways. An ethnography of communication approachis used to explore how these populations understand their use of marine resources, their role in the decision making process, and the ethical propriety of the process itself.

P

Carrie Packwood Freeman

Creating a Just and Sustainable Humanity: Core Values to Unify Human Rights, Animal Rights, and Environmental Campaigns

Solving the environmental crisis will require the unified efforts of all social justice movements (on behalf of human and nonhuman species). To achieve this, movements must coordinate the framing of campaign messages to foster a cultural shift in human identity away from egocentrism and humanism, and toward a more integrative identity where people begin to see themselves as "human animal earthlings." This multi-faceted identity should inspire the agency and urgency needed for humans to make the major changes sustainability requires. To formulate the basis for this shift, I seek ideological common ground between animal ethics, environmental ethics, and social justice, using this to suggest core values around which social movements can build campaigns that, despite their various pragmatic goals, will also work on a broader level to cultivate a just and sustainable humanness. These core values include: fairness, responsibility, moderation, integrity, community, teamwork, life, respect, diversity, freedom, and wellbeing.

Mi Sun Park

Media Communication on Climate Change in the Democratic People's Republic of Korea

Media represents problem definition and interpretation and treatment recommendation in environmental communication. This paper aims to investigate how the issue of climate change as a global environmental issue has been communicated at the national media. In particular it focused on the case of the Democratic People's Republic of Korea (DPRK). For media analysis, 'Rodong Shinmun' and 'Minju Chosun' as two major newspapers were selected. The articles carrying terms of 'climate change' and 'global warming' in the title of articles were selected from 2005 to 2012. The selected articles represented news from foreign countries, risks of climate change at the global and national levels and critiques to global responsibility. The results show the reflection of

global communication to national communication. Considering a role of media as a means for introducing, propagating and instigating policies in the society of DPRK, the results indicate national perspectives to the global policies on climate change.

Mi Sun Park & Min Kyung Song

Media frames on forests in the Democratic People's Republic of Korea

Media frame environmental issues through problem definition and interpretation and treatment recommendation in environmental communication. In the society of the Democratic People's Republic of Korea (DPRK), 'Rodong Shinmun' as an official newspaper published by *North Korean Workers Party* plays a role as a means for introducing, propagating and instigating forest policies. To investigate the focus of forest policies and their changes in DPRK, media frame analysis was applied to this research. Total 499 articles carrying terms of 'Sanlim (forest)' and 'Rimsan (forest products)' in the title of articles were selected from the Rodong Shinmun. As a result, media contents on forests were analyzed with frames; responsibility, technology development, future generation, economic development, forest use, forest conservation/ plantation and patriotism. In particular, the frame of patriotism was emphasized by journalists and politician leaders, Kim Il Sung and Kim Jong Il. This research will contribute to understanding forest policies in the DPRK.

Israel D. Parker & Andrea M. Feldpausch-Parker

The North American Model of Wildlife Conservation: Can It Move Beyond Hunting?

The North American Model of Wildlife Conservation (NAMWC) defines the unique style of conservation on the North American continent comprised of equal and ethical public access to natural resources that are ostensibly held in trust for them by the state. Over the 12 years since the NAMWC was first articulated as a concept, many wildlife specialists and curriculums in Canada and the U.S. have adopted the seven central tenants of the model as a representation of conservation history and a preferred direction for future management strategies. In a rhetorical critique of the model we argue that its narrow stakeholder focus (predominantly hunters and wildlife specialists) limits both a broader spectrum of citizen involvement in wildlife management decisions and the future applicability of the model due to changing values toward nature. This critique draws upon the written descriptions of the tenets from Geist et al. 2001 as well as other academic and popular literature addressing the model.

Patricia Paystrup

Clashing Advocacy Coalitions and the Dynamics of Contesting Risky Technologies

The paper introduces the Dueling Definitions of Uncertain Risk Model, an interdisciplinary model incorporating theories from the policy sciences and the field of risk communication. Using the underlying theories behind the Advocacy Coalition Framework, the model focuses on how the industry sponsoring the questioned technology and the citizen groups opposing it use their strategic and persuasive resources to influence the policymaking process to fight for public policies that will either advance the use of the technology or see the potential risk regulated and mitigated. This analysis uses the current battles raging in communities in the United States over the controversial new drilling technology—horizontal hydraulic fracturing—being used to tap oil and gas deposits locked in layers of shale rock as an illustrative case study

Markus Peterson & Nils Peterson

Wildlife Privatization as Identity Crisis

Wildlife conservation policy often revolves around historical accounts of the public trust doctrine (PTD), but few authors question the doctrine's efficiency in a globalizing world driven by neo-liberal economics. Governments have claimed authority over natural resources under what is now called the PTD since at least the Roman Institutes of Justinian. By 1900, the PTD was firmly established in U.S. case law, with the states holding wildlife in trust for the people. In recent decades, North American stakeholders gained incentives to challenge the PTD as wild species gained substantive positive and negative economic values. Most criticisms of the PTD doctrine are grounded in neoliberal economic logic, which suggests the invisible hand of the market will promote conservation of privatized wildlife in the most efficient manner possible because people will not care for what they do not own. We suggest the class of subjects people care most about—families, friends,

and people in general—typically cannot be privately owned because freedom (as opposed to slavery) is a right which, when abrogated, degrades human identity. The degree to which this ethical argument applies to preventing privatization of wildlife depends upon the relationship between freedom and wildlife's identity. Thus, we suggest that any decision to privatize wildlife, as is ongoing in several U.S. states, should occur only after society has addressed the degree to which freedom is essential to wildlife's identity and the degree to which that identity is inviolable.

Pham T.T., Brockhaus & M. & Di Gregorio M.

REDD+ politics in the media: a comparative analysis from Vietnam, PNG, Nepal and Indonesia

A mechanism to reduce emissions through avoided deforestation and forest degradation (REDD+) has been introduced in the global climate negotiations. A number of developing countries have become engaged in designing national strategies, policies and measures for REDD+, among them Vietnam, Nepal, Papua New Guinea and Indonesia. Numerous actors try to influence these policy processes in pursuit of their own interests and agendas. The media can shape policy frames around REDD+ but policy actors also use the media to push forward specific ideas and discourses about how REDD+ policies should look like. As such the media in part reflect discursive practices of ongoing policy processes. A comparative analysis of REDD+ media frames from major newspapers in the four countries shows how REDD+ media discourse is mainly influenced by the countries' political economy and discursive practices of dominant policy coalitions. The paper discusses differences and similarities of dominant policy discourses as represented in the media. Among the similarities, REDD+ is often understood as a compensation scheme where developed countries pay for developing countries to preserve forests. While overall the voice of local people and civil society organisations seems limited, there are important differences in the role and attitudes of state actors, and in the level of inclusiveness of policy coalitions. The paper concludes with an assessment of the political opportunities and constraints for effective progress in REDD+ policy formulations in the four countries. This paper contributes to a growing literature that uses media analysis to assess ongoing policy formulation of climate change and REDD+ in developing countries.

Mairi Pileggi

Wandering from Wilderness

Since 2005, the National Park Service has been embroiled in a controversy involving an oyster company lobbying to extend a Special Use Permit to operate in a potential wilderness area; the permit expires in November 2012. What was initially an administrative conversion to wilderness has been redefined as a scientific debate concerning the environmental impact of the oyster farm. This paper explores the San Francisco Bay Area media's role in framing the debate and in effect limiting the possibilities to participate in local community conversation. The study uses Bourdieu's notion of field, capital and habitus to characterize this conflict by identifying the stakeholders involved and by determining their positions within the journalistic field. This methodological approach foregrounds the social mechanisms and field dynamics that enabled the shift from a legal definition of wilderness to a sovereign claim for private interest to profit from public lands.

Larry Pryor & Stephen D. O'Leary.

Climate Change, Collective Intelligence, and the Revitalization of the Public Sphere for Eco-activism

The failure of national and international governments and leaders to enact any meaningful policy on climate change presents a severe risk of irreparable harm to the planet. Our essay argues that this failure is symptomatic of a general decline and shrinkage in the rhetorical spaces for public argument. While the role of new media technologies in creating such spaces and bringing about progressive change has been hotly debated, we believe that the Internet may open up spaces for public deliberation and contribute to the formation of an international public sphere in which environmental problems such as climate can be addressed and solved. For this to occur, we argue that environmental advocates must both exploit the possibilities of new media and shift their argument strategies, focusing on deliberative questions of acceptable risk rather than debating factual questions of climate science.

Q

Marina Queiroz

Food, common spaces and the collective making of urban agriculture in Uppsala

Though being an old activity in urban contexts in Sweden urban agriculture has gained considerable attention recently. This paper presents the case of Matparken (the food park) which is a new collective experience of urban agriculture in Uppsala. The project has combined both the practice of urban agriculture based on ecological principles and a wider community involvement including pedagogic work at local schools thus giving young students the possibility of gaining knowledge on ecological agriculture. Matparken can be conceived as a grassroots initiative that places urban agriculture in a public green area and so urban agriculture becomes also a place serving as an alternative meeting point in the local area, strengthening social bonds over generations (this through the mix between people of different ages in the collective), raising gender awareness and fostering the mixing of people with different cultural background in an area with a large number of immigrants.

R

Chara Ragland

Water policy by public design on the Texas Coast

Freshwater inflows are vital to ecosystem services in the San Antonio and Mission-Aransas Bays of the Texas Gulf coast. Historical policy privileges upstream urban and agricultural water usage to the detriment of bay systems. In an attempt to address this conflict, the state of Texas mandated stakeholder committees evaluate water quality and needs to make recommendations to the water permitting authority. This is the precedent for our public participation process involving mediated modeling, a process of shared learning. We describe a series of meetings in which participants build a knowledge base from which they begin to ask specific questions about the ecosystem. A quantitative model is then built by professional modelers to answer participant questions. With facilitation, participants run simulations to determine whether modeled policy and management practices might address estuary sustainability. The goals of the project are to actualize public participation through knowledge building in the water policy process.

Chara J Ragland & Adrienne R Strubb

Revisiting Participation: Who Matters

In this paper we focus on 'who' participates in environmental decision-making. We are concerned that participatory processes in the US may be moving toward stakeholder as opposed to citizen involvement. We use the key elements of access, standing, and influence to evaluate the relative effectiveness of these processes involving a narrower stakeholder representation or direct public involvement. Effective participatory processes have the potential to build community capacity which can be important in subsequent issues. We use empirical examples from the energy sector, water policy, and examples in the environmental literature to illustrate how the idea of stakeholders rather than citizens pervades US participatory initiatives. We suggest that in order to address pressing environmental issues in a timely manner, applied scientists need to move toward greater citizen involvement.

Kaisa Raitio & Rebecca Lawrence

To engage or not to engage? Deliberation, conflict and the risk of co-option

Different types of collaborative planning practices have become the norm in natural resource management and in the assessment of development impacts on local communities. They are based both on the practical need to address conflicts and on the ideal of deliberative democracy. However, critics argue that the focus on collaboration and dialogue risks de-legitimizing political protests and activism as important forms of political action, by labeling them as 'unconstructive'. This is problematic particularly in the face of structural inequalities. The paper analyses public deliberation and activism as alternative and complementary strategies for promoting indigenous land rights of the Sámi people in Finland and Sweden. Our case studies concerning state forestry planning and EIA in mining show that the Sámi representatives gain from balancing and

combining collaborative and adversarial strategies in order to both create changes in power relations and to engage the other actors in debates on indigenous peoples' rights.

Bianca Ramírez

A Comparative Study Evaluating Conservation Education in Indonesian Provinces by Mediating Issues Pertaining to Differences in Culture, Religion, and Ecotourism: Hinduism in Bali versus Islam in East Kalimantan

This paper examines the differences in conservation between the predominant religion of Hinduism in Bali and a predominant Muslim culture in the province of East Kalimantan. This paper also explores the contrasting practices of religion and ecotourism between the two provinces. This paper highlights Muslim and Hindu religious ideologies and the differing viewpoints on ecotourism as well. Conservation campaign sites in the provinces were analyzed to determine whether or not their efforts are successful in targeting local communities. The analysis focuses on how many of the individuals involved with the campaign site belong to which religious groups, in order to evaluate how devotion to a specific faith is (or is not) indicative of their conservation ideologies. In addition, ecotourism activities were evaluated to determine the influence it has on conservation education and religion.

Jean P. Retzinger

Crossing Borders: Connecting Immigration and Agriculture in the Press

This study uses content analysis to examine press coverage of immigration and the frequency and scope of attention paid within that coverage to the role of immigrant labor in US agriculture. The study examined newspapers articles from 2006-2011 drawn from 12 newspapers (representing the four US/Mexico border states, the top fruit and vegetable producing states, and two national papers). Overall, roughly 9% of articles included in this study offered any mention of agriculture in their reporting on immigration, though regional variations emerged. A second content analysis attended more closely to the sources cited and topics found within a sample of those articles mentioning agriculture. Government officials and law enforcement sources were quoted nearly three times as often as immigrants themselves. Business leaders were cited four times as often as farmers. Crime and terrorism appeared as a prominent theme—more so than discussion of field workers' wages, working conditions/safety, housing, or physical and mental health.

Dominique Richard

The Ghost of Dr. Mesmer or the Illusionary World of Fantastic Claims

Scientific truth is often the first victim of political debates concerning the environment. Indeed, these debates are often fraught with appeals to arguments outside the realm of science designed to counter scientific claims: witness the current disputes about the existence of the sources and manifestations of global warming. This paper focuses on more insidious situations where the scene of science is exploited to provide irrelevant alternatives designed to confuse and sway a public unable to respond, let alone see the difference. This is particularly troubling since scientific arguments are expected to be disputed autonomously within a context designed to unequivocally assess the import of data and models. Foucault's reading of Plato's *Sophist* and Aristotle's *Metaphysics* will help characterize such deception. A recent case where private interests tried to forcefully overturn an act of Congress that had designated the area they exploited as wilderness will serve as illustration.

Laura N. Rickard

Mountains and Handrails: Risk, Meaning, and Responsibility in three National Parks

Where we live, the relationships we maintain, or the church we attend can tell us much about the way we perceive and evaluate risk. Though often viewed as something to be avoided, risk can also be sought-after. Perceptions of risk and attribution of responsibility for safety are particularly relevant in the context of U.S. national parks. In such places, recreational activity often results in unintentional injuries, yet strong sentiment exists for management that encourages voluntary risk-taking and exposure to environmental risk. If experiencing risk may be both desirable (e.g., self-affirming) and undesirable (e.g., injury-causing), how might we evaluate its overall role in a national park? Likewise, what are the expectations for visitors to encounter or

to avoid park-related risk? Through in-depth interviews with National Park Service (NPS) employees and volunteers, this study examines the interplay of risk, meaning, and responsibility in three national parks.

Sonny Rosenthal et al

Perceptions of Climate Change in Singapore and the United States

This study compared public opinion of climate change in Singapore and the United States—two nations that have informative contrast between their natural environments, political processes, and public engagement. We examined responses to three survey items and found that, relative to Americans, Singaporeans expressed at a much higher frequency the belief that global temperatures are rising, were more likely to describe climate change as a “very serious” or “somewhat serious” problem, and were more likely to assert scientific consensus on climate change. In general, Singaporeans expressed opinions that largely resonated with climate science and official government positions. Differences may be related to different modes of public participation in Singapore and the United States, which may reflect differential access to natural resources and unique modes of governance, among other factors.

Sonny Rosenthal, Shirley Ho, Benjamin & Hill Detenber

Singapore public opinion of nuclear power after Fukushima

This extended abstract presents the results of a June 2011 survey of Singapore public opinion of nuclear power. We collected the data roughly three months after the Fukushima Daiichi nuclear disaster in Japan, and thus have a cross-section of public opinion in close temporal proximity to the disaster. Findings suggest that, although Singaporeans are aware of the benefits of nuclear power, they are highly concerned about the risks related to plant operations and strongly oppose construction of a plant in Singapore. Interestingly, Singaporeans expressed only moderate concern about nuclear power plants in Japan, which suggests an effect of geographic proximity. In order to test effects of temporal proximity, we propose a longitudinal analysis of Singapore public opinion of nuclear power, which will include data from an October 2012 survey of Singaporeans. We will include this data in the final manuscript.

Connie Roser-Renouf et al

A Social-Cognitive Model of Consumer Activism on Climate Change: Social Influence, Perceived Threat and Efficacy Beliefs

Applying social cognitive theory, we develop a two-stage information-processing model of consumer activism on climate change. In stage 1, friends' beliefs influence the individual's perceptions of the threat of climate change and its solvability. High perceived threat and solvability then foster affective issue involvement and support for societal mitigation action. In stage 2, those who are involved and support mitigation are more likely to become consumer activists if they have friends who are acting to reduce climate change, and if they are opinion leaders who believe that consumer activism is feasible and effective in changing corporate behavior. Using nationally representative data, we fit a structural equation model explaining 85% of the variance in prior and intended consumer activism that largely supports the proposed model. Results suggest that communicators should encourage interpersonal communication on the issue and help activists understand that social influence will amplify their efforts by influencing their peers.

Steven B. Rothman

Battle for Rhetorical Dominance: Selective Presentations and Frames in the Climate Change Debate

Due to international issue complexity and expert filtering, only a selection of content reaches the public, which influences issue perceptions and policies. This essay generates a theory of selective presentations and the influences on actor frames. The paper describes four types of information selections: facts, causes, consequences, and prescriptions. The uncertainty of scientific information, the presence of equifinality, and differing scope conditions for international issues enable selective presentations to occur. Finally, the paper utilizes public presentations in Associated Press articles to document the changes in the rhetoric used to represent the different aspects of the climate change issue. Future research beyond this paper will begin to examine the causes and consequences of the changes in rhetoric to better understand the means to change the policy making process in the agenda-setting and framing stage.

Chris Russill

Earth Observing Media: Imaging, Indexes, and Warnings

Earth observing media are the first global media (integrated both horizontally and vertically in some cases), among the best examples of 'converged' medial networks, and increasingly important to the conduct of earth systems science and precautionary policies for addressing environmental danger. Yet, the design, institutional organization, daily operation, and broader implications of earth observing rarely receive extended consideration despite their increasing importance for preparedness strategy, global policy, and emergency response. In this paper, I develop a theoretically informed history of earth observing to discuss the nature of imaging, indexes, and warnings given the dominant model for organizing these media. In my presentation, I will focus attention on how diverse media are used to sense and know the atmosphere. I will track the recording, storage, and imaging of electromagnetic radiation over time as this data is constituted symbolically as ozone holes, UV indexes, and precautionary protocols, and as it illustrates how earth observing media restructuring our experience of our collective surroundings.

Stephen Rust

Trash Talk: Visualizing the Convergence of Ecomedia Studies and Media Ecology

To engage more fully with communications and technology scholarship, ecomedia studies scholars must confront the rhetoric of "Media Ecology," a branch of media theory that employs metaphor to describe complex communication systems as environments. The convergence of ecomedia studies and media ecology is tricky given each's disciplinary roots and uses of the term "ecology." However, both conversations assume that the sciences and humanities must rely on one another to understand the social and biomaterial impacts of technologies on our world. Here, building on Patricia Yeager's "Rubbish Ecology" (2008 PMLA article) and Richard Maxwell and Toby Miller *Greening the Media* (2012), I highlight how exploration of media rubbish enables convergence between these fields. Specifically, to explain my point, I examine films such as *Wall-E*, *Manufactured Landscapes*, and the PBS documentary "*Ghana: Digital Dumping Ground*" where rubbish and e-waste serve as elements of the commons.

S

Adriana Salas

Ecotourism as Alternative Livelihood for Conservation in Indonesia

Academic research has focused on ecotourism and its positive and negative effects in Southeast Asia. However, the focus in this particular study is to look at what it takes to run a successful ecotourism site in four diverse locations in Indonesia. I argue that a successful ecotourism site must carefully look at how their ideas and programs are framed. Ecotourism must also create a sense of value within the community and an acceptance of other cultures by creating a cross-cultural adaption between the local community, organizers, and tourists themselves. A successful ecotourism site should not be determined by the influx in revenue it should focus rather on the positive effects on the culture of the community which leads to positive environmental practices. I specifically address how ecotourism sites in Indonesia can have positive impact on the environment and local culture through communication framing and cross-cultural adaptations.

Anne-Marie Salmi & Tuomala Heimo

Politics, logistics and natural resources – cornerstones of the sustainability concept in local level communication

Communications is the way to make the sustainability concept a reality. The sustainability concept as such offers a solid basement for acceleration the values of the harmonized development of environmental, economic and social issues of any organization. But, in the local level, the cornerstones of the implementation are politics, logistics and natural resources. Sustainable development messages can sometimes conflict with messages made by politics and government bodies. In logistics the sustainability over time requires sufficient

commercial benefits. Concerning natural resources, besides the sustainable planning and use of natural resources, the redistribution of income to the local level is a challenging issue. The communications mechanisms must be put in place and to find out if there is a need for much more coordination between actors. The lesson learnt by Bluehut's experts is that sustainability and environmental communication have to be positive and tailored to different local circumstances and cultural contexts.

Camilla Sandström et al

The Changing Role of Hunting - from Subsistence to Ecosystem Stewardship?

Traditionally the motivation for hunting has been to ensure supply of game meat. This is still a very significant motivation, not only in developing countries, but also in arctic regions such as the Nordic countries. However, the most common motivation in developed countries is the harvesting of wildlife for recreational purposes. Another motivation for hunting is management in the form of regulating wildlife populations when they may damage croplands of forests. With the ratification of the Convention on Biological Diversity (CBD) hunting has also become an important tool for conserving biodiversity within the framework of ecosystem management. This is however often considered as a contradiction in terms. Can hunting contribute to biodiversity objectives and wildlife conservation and how do hunters themselves consider this changing role from subsistence/recreation to management and ecosystem stewardship? The presentation will be based on interviews with hunters involved in the recently implemented moose management system based on an ecosystem approach.

Victor Santana-Melgoza

Gender Issues in Indonesian Conservation Efforts

Building from work in social forestry and gender (Mwangi & Mai, 2011), this study examines the lived experiences of women involved in conservation efforts and campaigns in Indonesia. Question topics included job satisfaction, family responsibilities, education, and field experiences. Gender roles were found to be traditional, and without question to societal norms in Indonesia. Women said they were treated and felt equal to men, especially given political gains that have been made within the past 15-20 years. However, women tended to be relegated to office support positions, but were mostly satisfied with this set up. Overall, women participants felt that they have a place at the table and can provide different insight into the field of forestry and conservation. This study also explores possibilities for women to participate in the public sphere more broadly, on topics such as policy, economics, and community development.

Eurig Scandrett, Jim Crowther & Callum McGregor

Poverty, Protest and Popular Education in Discourses of Climate Change

Discourses of climate change emerged in scientific epistemic communities, were taken up by activists in the environmental movement and found their way into policy. During this journey, this contested discourse shifted and adapted to reflect the discourses and interests of competing social groups. Issues of redistributive social justice emerged as a fringe component of the discourse, largely as a result of development, international and Southern NGOs. Although environmental movements of the poor and victims of environmental injustice have increasingly been a significant component of political contestation, the extent to which these movements, or indeed the voice of the poor and victims of climate related policy, have contributed to narratives of climate change is negligible. This paper explores the implications for such a narrative and critically analyses initiatives of popular education, protest and culture which have attempted to engender dialogue between anti-poverty and climate justice activists.

Jonathon P. Schuldt & Sungjong Roh

Hot or not? Differential associations of "global warming" vs. "climate change" across the partisan divide

Global warming" and "climate change" are often treated interchangeably in public discourse, and yet, the effect of these terms on the public's climate-related cognitions is not well understood. Building on research into the differential associations evoked by these two terms among the public generally (e.g., global warming conjures stronger associations of rising temperatures and melting polar ice), we investigate whether these frame-based associations vary by citizens' political orientation in the United States, where climate beliefs are

highly partisan. We report on a Web study of N = 400 Americans who reported the extent to which they associate various causes and impacts with “global warming” or “climate change,” depending on experimental condition. Results varied markedly by political orientation: whereas conservatives and Republicans associated warming-related impacts (e.g., rising temperatures, melting polar ice) more strongly with global warming than with climate change, liberals and Democrats did not. Discussion focuses on implications for the partisan divide on beliefs and concerns about global climate change.

Daniel Schulz

The environmental public sphere online: An analysis of web-presences of actors of environmental communication

New media technologies might open up opportunities of participatory environmental communication. Although scholars have emphasized that technical innovation does not automatically lead to revolutionary changes in communication patterns, it is especially the current paradigm of social media or web 2.0 that emphasizes participation and dialogue. However, in order to prevent tendencies of fragmentation of discourse and isolation of individuals, actors of environmental communication play a crucial role in providing opportunities for communication and participation via their web-presence. The poster contribution will present an empirical study of a sample of 90 web-presences in the field of environmental communication in Germany ranging from well-known environmental organizations such as Greenpeace and the WWF to small grassroots initiatives. Special emphasis is placed on dialogue-oriented elements. As these web-presences may serve as indicator for progress and effectiveness of environmental communication online, this research may contribute to an understanding of how new technologies may change the environmental public sphere.

Steve Schwarze et al

Competing Rhetorics in Contemporary US Coal Controversies

This essay identifies and analyzes some of the primary rhetorical strategies that have been employed in contemporary coal controversies in the United States. These strategies have emerged from an ongoing research project that analyzes coal rhetoric in the US; in particular, rhetoric focused on mountaintop removal (MTR) in Appalachia. Building on Lange’s (1993) analysis of the mirroring and matching strategies of advocates in the controversy over the spotted owl and logging in the US, the essay discusses three dominant strategies—narrative framing, identity construction, and dueling science—that constitute the logic of controversy over coal extraction, energy production, and climate change. The essay will conclude by discussing how the political economy of environmental controversy opens and closes opportunities for using these strategies to affect deliberation about the future of coal.

Samantha Senda-Cook & Jay Leighter

Social Event as Social Media Practice

In urban cities, environmental issues such as transportation options, local/whole food availability, and the repurposing of spaces garner attention through social events. These small-scale events (100-1000 people) contribute to a cultural climate that prioritizes environmental issues. However the people who go to them are self-selecting and tend to organize in a social media pattern. By that, we mean that interactions through social media happen through specific communication practices such as maintaining organization affiliations and articulating one’s identity through these overlapping affiliations. By comparing small social events to social media practices, we suggest that contemporary environmental movements connect radically different organizations on relatively equal ground at small-scale events. This way of organizing has implications for democratic capacity and how just a few people can articulate a community.

Sukanya Sereenonchai

Communicating Adaptation to Climate Change in Thailand: Communication Concepts for Practical Adaptation

Impact of climate change is much severer and causes more damages to local communities who are one of the most vulnerable groups. Local communities need to know scientific knowledge on adaptation to climate change integrating with indigenous knowledge for sustainable solutions to promote food security and poverty reduction, understand how to communicate the integrated knowledge to enhance better understanding and participatory adaptation. This paper aims to find out what, how and why communication concepts can

promote more effective adaptation to climate change of local communities in Thailand by reviewing related documents, analyzing climate change adaptation projects, and interview experts on community-based adaptation to climate change. The results show that climate change communication: credible and qualified sender, contents of risk, disaster and sustainability with scientific and local knowledge with right time and place, preferable channels to local people, community communication, participatory communication and communication network are crucial to practical communicating adaptation.

Annika Egan Sjölander

The fuel of the future framed in the Swedish press– A discourse analysis of ethanol as an alternative to fossil fuel

Ethanol has been heavily promoted in the last decade, particularly in Sweden, as a sustainable, 'new' alternative to fossil fuels for transports. A lot of criticism has also been formulated. The role of the media has been crucial in these disputes, both as an actor and as an arena for other stakeholders. The aim with this paper is to present results from a longitudinal discourse analytical study of how national and local press in Sweden have dealt with the issue. The studied period is from 2005 to 2010. Questions that will be answered are; who were the principal actors taking part in the ethanol debate and what sort of pro and con arguments were put forward, and by whom? What kind of conflicts arose and which taboos and divisions were established in the media discourse? Lessons learned about obstacles for societal transformations will also be discussed.

Viveca Sjöstedt & Daniela Kleinschmit

Potential for policy integration - How stakeholders in Sweden frame bio-energy from forest products

The Renewable Energy Directive (2009/28/EC) of the European Commission aims at increasing the use of renewable energy in the EU by 20 percent by 2020. The energy source that is expected to increase the most in Sweden is biomass from forest products, but the quantity of forest products is limited and the demand for forest products is higher than ever. Therefore an increasing risk for controversies about the allocation of forest products can be expected. Different sector-networks dealing with forests and forest products are affected by the bio-energy directive. Sector-networks are understood as a policy network consisting of different stakeholders surrounding a specific sector. In this study it is assumed that policy option of policy-integration depend "on underlying structures of belief, perception and appreciation" (Schön and Rein 1994, p. 23). The empirical research concentrates on the communication of four sector-networks in Sweden affected by the bio-energy directive: energy, agriculture, forest and environment. Content analysis of articles published between 2001 and 2011 in Swedish stakeholder journals of the four sector-networks will identify the frames used in these networks, their conflicting potential as well as cross-sectoral or multilevel social learning in the sense of a changing of framing over time. An analysis of the bio energy discussion in Swedish daily newspapers of the same observation period will additionally show which of these frames become accepted in the public discussion.

Jan Skalík & Bohuslav Binka

Representation of Stakeholders and Public in Parliamentary Debate about National Parc Šumava

Poster focuses on representations about view of stakeholders and local public on the policy approaches in National Parc Šumava in the Parliament. Šumava region was inhabited by incomers from all over the East Europe. Without any bottom-up pressure it becomes protected in 1992. Conservation has to face fear of local people, often turned to anger. This is systematically used by politicians to manipulate public towards the interests of regional lobby. National Park authority changes its approach in dependence on the national politics which leads to instability and two protests of conservationists. Poster uncovers this via semantic analysis of complete political debates between 1994 and 2012. MPs use described situation to follow their political strategies. During debates in Parliament, they refer about regional atmosphere emphasizing unemployment, wellbeing and exclusion of local people from decision-making. By purpose they neglect differentiation of views, construction of the problem by politics itself and scientific agreement.

Hollie Smith, Laura Lindenfeld & Linda Silka

Institutional Capacity for Interdisciplinary Collaboration: The Lessons from Alternative Energy Research Initiatives in Maine

With many higher education institutions currently engaged in an “interdisciplinary arms race” (Rhoten & Pfirman, 2007), it’s important to understand how institutional structures can create or remove boundaries and capacity for collaboration and interdisciplinarity. In this paper, we explore institutional capacity through the lens of alternative energy as a form of social ecological systems research. Specifically, we focus on the University of Maine, which is recognized as a leader in alternative energy research with three primary alternative energy research initiatives: The Advanced Engineering and Wood Composite (AEWC) Center’s development of deepwater offshore wind energy; The Forest BioProducts Research Institute development of biomass research; and the Maine Tidal Power Initiative’s work on tidal energy in Cobscook Bay. To address the issues of institutional capacity for collaboration and interdisciplinary work, this paper will highlight the communicative practices involved in SES alternative energy research and results from a survey of faculty, professionals, and students working on these three alternative energy projects.

Vivian Paes & Barretto Smith

Mediated participation: the case of Belo Monte supporters and the Movimento Gota D’Água dialogue on the internet

The environmental movement uses communication as one of its main mobilization actions. Information and Communications Technologies (ICTs) has recently been an interesting alternative to propose campaigns, mainly through institutional videos and digital social networks. This article examines the use of these instruments by Movement Gota D’Água, specifically its main institutional videos that stirred the internet in late 2011, against the construction of the Belo Monte hydroelectric plant in the Amazon rainforest. In contrast, university students made response videos deconstructing the NGO speech in favor of the power plant. From the methodology developed by Dryzek (2005) the studied analyzed the discourses embedded in the videos demonstrating the conflicts in this environmental debate that took place in the new media “public sphere”.

Stacey Sowards

Intersections of Gendered Experience and Ecotourism in Indonesia: An Evaluation of Communicative Processes Between Tourists and Local Communities

This essay examines the relationship between gender and ecotourism activities in four locations in Indonesia. In particular, this project addresses the gendered nature of ecotourism as an alternative livelihood in conservation campaigns and efforts in Kutai National Park, Karimunjawa National Park, Bali Barat National Park, and Gunung Leuser National Park. Following the work of Husien (2002) and Purnomo, Irawati, Fauzan and Melati (2011), understanding how women and men participate in alternative livelihood schemes is of importance for understanding community development and participation in conservation campaigns and activities in these areas.

Leah Sprain

Not a Speech Event: Examining (Counter) Cultural Discourses in Deliberation

The ethnography of communication holds the speech event—a structured occasion for speech recognized by community members—as a basic category for analyzing cultural communication. Yet sometimes occasions for speaking are not recognized as speech events by community members. This paper examines a series of small group public Deliberations on how to meet a community’s future water needs. After establishing that “public deliberation” is not locally understood as a speech event, the paper examines other cultural expectations for speech invoked during the deliberations. This comparison of cultural expectations for speech and participation informs theorizing about the ethnography of communication and reveals practical challenges for designing novel modes of water governance and public participation in local communities.

Neil Stenhouse & Susanna Priest

Overcoming the Issue Attention Cycle: Four Possible Ingredients of a Successful Climate Movement

One way in which citizens could participate effectively in the governance of climate change is by forming a social movement devoted to climate. However, few citizens are currently participating in this way, and few communication scholars have explored the idea of a climate movement (as opposed to a more general environmental movement). In this paper, we examine the possibility that a strong climate movement will be needed to overcome climate change's fading out of politicians' attention and media attention due to processes described by Downs' Issue Attention Cycle. We review four important strands of the social movement literature – mobilization, strategic capacity, collective identity, and political opportunity structure – and discuss how these factors could be important in determining the fate of current and future efforts to build a climate movement. We conclude by discussing what this means for those who are attempting to communicate the need for action on climate change.

Stormont, M. H., Binder, A. R. & Cobb, M.

Transmedia communication on transgenic mosquitos: Controversial science in a network of digital media

Many studies in public communication of controversial science have provided critiques of the deficit model, often by dissecting the use of a single forum, for the sake of understanding that medium in depth. This project seeks to analyze public communication more holistically, examining communication across multiple media. The project's focus is the British company Oxitec, which has patented a genetically modified mosquito-control technique, Release of Insect with Dominant Lethal (RIDL) or "sterile" male mosquitoes. Oxitec currently uses a website, informational videos, short films, Twitter, Facebook, and a newsletter to communicate with English-speaking communities about this technology. We analyze Oxitec's use of these media to identify the objectives of each, analyzing how they may differ or complement each other. We then compare these qualitative results to a U.S. national public opinion survey in order to understand potential effects of Oxitec's communication strategies, specifically their use of the term "sterile male" mosquito.

Nathan Stormer & Laura Lindenfeld

Interdisciplinary Research Capacity as Rhetorical Resilience

Interdisciplinary research capacity is crucial to scholarship on the environment and on sustainability. Universities and funding agencies are keen on building it. What defines such capacity is, in the end, the production of authoritative discourse about current unsustainable social-ecological systems (SES) and about possible future systems that are more sustainable. As such, interdisciplinary research capacity is marked by a certain "rhetorical resilience," meaning the ability to grow and adapt in order to produce more and better quality research related to sustainability. This paper argues such capacity emerges from the complex, material networks of research, which includes not only scholars, graduate students and stakeholders, but also the communities, species, ecologies, and inorganic materials participating in the research. It defines interdisciplinary research capacity as "a space in which the human actors are still there but now inextricably entangled with the nonhuman," what Pickering calls the "the mangle of practice" (1995, p. 25). Contrary to notions of research as distinct from its objects, research capacity (as a capacity to produce discourse) is itself dependent on the resilience of the systems it studies and emerges from them as well.

Adrienne Strubb et al

Smart Grid: An Analysis of Stakeholder Perception in an Emerging Energy Technology

By applying more energy efficient and diversification technologies, we can reduce our dependence on fossil fuels and work toward mitigating climate change. Understanding these visions and articulations is important, because they influence energy policy, which, in turn, shapes conservation opportunities and constraints. To enhance understanding of how socio-political contexts shape visions and articulations of Smart Grid, we're conducting focus groups with influential actors in three electricity transmission regions within North America: The Midwest Independent System Operator (13 US states, Manitoba & Ontario Canada) the New England Independent System Operator (6 US states, Quebec & New Brunswick Canada), and the Electricity Reliability Council of Texas. Given that the public is largely uninformed about energy systems and technologies, we select informants who are influential actors in the targeted jurisdictions. Focus group participants include regulators, policy-makers, technology developers, scientists and engineers, and community leaders who work with environmental advocacy groups and relevant businesses.

Miklos Sukosd & King-wa Fu

Environmental conflicts in China: a comparative analysis of social media discussions and Chinese and foreign newspaper coverage

Environmental movements and their communication practices in China bear profound implications for the definitions of and conflict between economic development and public interests, especially in light of the widescale adoption of social media in recent years. However, environmental conflicts and the massive use of social media in discussing such conflicts have not received much academic attention. This study attempts to contribute to this research area through quantitative and qualitative analysis of media framing regarding key environmental movements and conflicts across different media platforms in China. In terms of research methodology, the study makes contributions to the study of environmental communication by using a research design, and inductive coding categories and protocols, that can be applied jointly to both traditional and new media for reaching comparative results. The study compares the coverage/content from a) Chinese party and market newspapers, b) international newspapers as well as c) social media in China (messages and posts in the Sina Weibo microblogging service) through a framing analysis these media contents. Eleven key recent environmental conflicts in China were identified from international newspaper coverage, and relevant Chinese newspaper coverage and weibo posts were collected for the comparison. A coding protocol that can be applied on the three databases was developed for the analysis of the framing of all the contents and the communicative functions of the weibo messages.

Collin J. Syfert

Efficacy of Visual Rhetoric as Hegemonic Subversion in Whale Wars

This paper explores the popular documentary-style reality show *Whale Wars*, where anti-whaling activists bring radical conservation to the public. Through the use of staged spectacle, situated in a mass-mediated public sphere, marginalized subaltern counterpublics such as the radical conservationists find a socio-political voice. *Whale Wars* constructs polarizing imagery for media consumption with the potential to challenge ideographs of industrial growth, progress, and nature, but falls short of subverting hegemonic structures. Instead attention remains heavily invested in depictions of selfless action, legal ambiguity, and human conflict, maintaining anthropocentric appeal despite biocentric visual rhetoric.

Christian Stöhr

Establishing bottom-up participation in unfavorable environments – the Polish Baltic Sea Fisheries Roundtable

Research on environmental governance is increasingly turning away from classic top-down hierarchical governance regimes and toward more collaborative forms of governance, e.g. in form of analytic-deliberative participation of resource users. In this paper, we examine the role of the Polish Baltic Sea Fisheries Roundtable as a dialogical process in Polish Baltic Sea fisheries governance. The fisheries sector nested within a country context rapidly transitioning from a centrally planned system to (pseudo) market conditions provides an illustrative case in a very difficult context. Employing an action and learning based approach we participated in the initiation and institutionalization of a process of playing field leveling and trust building within the fisheries sector in Poland. Using Adler and Birkhoff's Collaborative Process Model for the action planning and implementation, we evaluate the approach and outcomes of this project and discuss the results in relation to the existing literature.

Maris Sörmus

Participation in Environmental Communication: Culture, Nature, and Literature

This paper focuses on the issue of environmental communication and the entailed participation. In addition to the humans' participation the study suggests the co-presence of culture and nature in environmental communication, highlighting nature's voice(lessness). An ecocritical stance is taken by proposing, first, some possible models of humans' inclusion in such communication; particularly the recent bioregional way of thinking is introduced. Second and most importantly, the paper takes into account the voice of nature, communication from the seemingly mute physical environment. Of special interest is therefore the question whether nature is really silent in environmental communication as well as what counts as speech and

participation. Drawing on the ecocritical framework and its premise, nature-culture relations, the representation of environmental communication in literature is finally considered as a new direction in literary studies.

T

Bruno Takahashi & Edson Tandoc Jr

Learning in the Beat: What Influences Environmental Journalists' Perception of Knowledge?

We conducted a survey of environmental journalists in the US to explore individual, routine and organizational influences on perceived knowledge of environmental issues among journalists who cover them. Using the gatekeeping theory framework, we found that routine and organizational factors, such as orientation to particular sources and affiliation to an organization, predict perceived environmental knowledge among journalists. Years of covering the beat, as well as affiliation to a news organization, and orientation to particular sources, particularly scientific and business sources, predicted perceived knowledge. In terms of individual factors, we did not find any significant influence on perceived knowledge. The relevance of these findings in the context of journalists' training is discussed.

Geo Takach

The Face of Oil: Visualizing Place – Identity in a Resource-Based economy

The study asks, how is the identity of a place in a resource-based economy constructed and contested through visual representations? How do citizens depict themselves and their core values in a global marketplace amidst the rising clash between the constant economic growth mandated by capitalism and its unsustainable environmental costs? An emerging epicenter of that clash is the bituminous sands (commonly called 'tar' or 'oil' sands) in Alberta, Canada, the world's largest industrial project and a magnet for both international investment (an anticipated \$ 2,077 billion over the next 25 years) and international protest for its calamitous ecological consequences. Blending critical visual discourse analysis, framing analysis and art-based research, this just-completed PhD dissertation examines the battle to represent Alberta in the court of public opinion through documentary films and online videos, in a world fueled by global economic forces and pervaded by the power of images.

Geo Takach

Transmedia and Environmental Communication: Towards A Brief Historical, Rhetorical and Multimodal Analysis

People have always turned to individual media to express our relationship to the environment. In recent decades, the proliferation of technology and opportunities for freedom of expression, along with a rising global environmental consciousness, have fostered a multitude of media enabling us to express our relationship to the environment in an unprecedented diversity of ways and forms. As communicators, our choice of media can profoundly influence both the meaning and effect of what we say on environmental issues. Building on theories and methods of multimodal analysis and drawing on both the rhetorical tradition and the cultural history of communications media, this presentation will highlight communicative strengths and weaknesses of theatre, print, photography, film, radio, television and online media in laying a foundation for an exploration of how these avenues can intersect to serve environmental communication in today's teeming marketplace of ideas.

Joo S. Tan

Reimagining Participation with Sustainable Mindset and Leadership: A New Conceptual Framework

This paper presents a new conceptual framework on reimagining participation through the development of a sustainable mindset and leadership approach. Sustainable mindset defined as the ability to engage in multiple forms of thinking and influence diverse stakeholders is critical in envisioning and developing new approaches to participation that transcends existing boundaries. Leadership capabilities, with a specific focus on cultural intelligence, defined as the capability to adapt effectively across cultures, are critical in envisioning culturally-

relevant models of participation and navigating global-local participation. Theoretical and practical Implications on different kinds of participation are discussed.

Valerie Thatcher

We're Not Tree-huggers: Identity Barriers in New U. S. Environmental Movements

Identification with and involvement in the environmental movement is avoided by many people concerned about the environment due to pervasive stigmatization of environmentalists as radicals and extremists. The inclusion of non-white and non-“tree hugger” activists within a newer type of environmental activism sets the stage for my concept about “atypical” environmentalists. I argue that atypicality is rhetorically constructed through the use of othering terms and images perpetuated through the media and by anti-environmental interests. Four sites within a collaborative and well-organized Texas coal-fired power plant opposition movement are analyzed as locations of atypical environmental activism. Health and economic degradation created by coal emissions and threats to agriculture and water availability motivate rural and small town dwellers, political conservatives, and urban minorities to agitate against their local plants. Despite their involvement with an environmental cause, many of these anti-coal activists and groups deny an environmentalist identity.

Anne Marie Todd

Sowing the Seeds of Change: Backyard Vegetable Gardening and Sustainable Democracy

Gardening is an environmental practice: Home gardeners' backyard choices of plantings and cultivation practices impact the global environment. Gardening is also a discursive practice: the way we communicate about horticultural decisions influences our knowledge of our individual impacts on local ecosystems and beyond. For example, seed catalogs attempt to persuade home gardeners to choose certain plants for their aesthetic and nutritional characteristics. Seed catalogs that tie these choices to sustainability goals offer a model for citizen participation in sustainable democracy. This analysis of such seed catalog discourse aims to shed light on gardening as an ethical activity.

María Ángela & Torres Kremers

Environmental observatories and citizens participation

This paper will present a structured characterization of environmental observatories in Latin America together with other internationally selected equivalents. A previous study indicated the central need of having a structured analysis of the observatories under investigation that leads to understand the communication processes involved. The main characteristic of the investigated cases is that they are active in the “digital” public sphere. This allows us to analyze their scope of use of Web 2.0 tools in their work. Special regard of this characterization will be given to:

Themes, issues and crosscutting issues

Involved actors, groups, networks

Internal and external communication structures

Participatory approaches and models

The selected cases (around 20) will be characterized in order to make a general typology of environmental observatories from the point of view of their participation models or approaches.

David A. Tschida

In the study of environmental communication, is an ounce of prevention worth a pound of cure?

This essay tackles a complex question facing environmental communication and advocacy, “what rhetorical characteristics define the ‘genesis’ moments of environmental conflicts, especially when the natural sciences are involved.” The objective behind such a question is as complex as the question itself. If we can understand these rhetorical conflicts better before they begin, can an “ounce of prevention,” in the form of understanding and intervention, serve as a “pound of cure” to limit the intensity or duration (i.e., the degree of conflict) in the debates. The core example guiding this essay is the issue of frac sand mining in western Wisconsin and eastern Minnesota.

David A. Tschida

Reimagining image politics on television: *Whale Wars* and *Whale Wars: Viking Shores*

This essay examines the image politics of the Sea Shepard Conservation Society in their Animal Planet series *Whale Wars*, and its more recent incarnation, *Whale Wars: Viking Shores*. The objective is to explore how the programs reimagine and reformulate the public sphere and image politics. This reimagining/reformulating has several implications for how Animal Planet itself factors into that reimagining, how “celebrity” influences the message, how issues of genre and medium add to what we know of journalistic treatments of image events, how the “cast’s” jeremiad influences the interpretation of the image politics, and how audiences become agents in the environmental struggle. The two programs clearly complicate our understanding of image politics within the environmental movement and this “complication” is worthy of our attention.

U

Aniefiok Udoudo

Newspaper reportage of Environmental Degradation and Youth Restiveness in the Niger Delta

This study investigated Udoudo’s (2006) suggestion for further study emanating from his PhD dissertation which held some people’s argument that youth restiveness in the Niger Delta could be curbed if the region’s environment were improved. The issue of concern in the suggestion is: which of the two variables is dependent on which and should be given a wider publicity? The timeframe for the study was between 1st January and December, 2008 when crisis in the region was at its peak before the declaration of amnesty by late President Yar’Adua in 2010 to the militants. Five newspapers were purposively selected for the study. The research questions adopted in the study were: i) between environmental degradation and youth restiveness in the Niger Delta, which receives a wider coverage by newspapers in Nigeria; ii) through their editorials, what position do newspapers in Nigeria take on their reportage of environmental degradation and youth restiveness in the Niger Delta; iii) what are the factors that could be identified as reasons for the reportage of a wider range of either environmental degradation or youth restiveness in the Niger Delta by newspapers in Nigeria? The study adopted both content analysis and survey as research designs. Interview served as the survey instrument for the study. Findings of the study showed that while the five newspapers collectively reported 0.63 item on environmental degradation in the Niger Delta, 5.47 items were reported on youth restiveness daily. Through their editorials, the five newspapers advocated for employment and improvement on the Niger Delta environment as the panacea to youth restiveness in the region. This implies that environmental degradation led to youth restiveness in the Niger Delta. The major factor identified as reason for the reportage of youth restiveness above environmental degradation in the Niger Delta was the attraction of reader’s attention. Among others, it is recommended that as media for development, copy sales should not becloud the reality of giving a wider reportage of environmental degradation in the Niger Delta by managers of newspapers in Nigeria.

Aniefiok Udoudo & Enale Kodu

The Reportage of Environmental Hazards in the Niger Delta by Newspapers in Nigeria

This study examined the reportage of environmental hazards by five selected Nigerian newspapers between 1st January, and 31st December, 2011. The choice of the timeframe was carefully chosen as a result of the relative calm in the region which could make newspapers in the country redirect their attention from reporting crises to reporting environmental issues. The five newspapers were purposively selected mainly due to their circulation and coverage. Research questions raised in the study were: i) to what extent have newspapers in Nigeria relayed information on the environmental hazards in the Niger Delta; ii) to what extent have newspapers in Nigeria, through their reportage, aim at drawing the attention of the government and corporate bodies to the environmental hazards besetting the Niger Delta; and iii) what degree of suggestions do newspapers in Nigeria, through their editorials, offer for the prevention of environmental hazards in the Niger Delta? Research design adopted was content analysis. Findings of the study showed that the five newspapers reported a daily average of 0.47 item on environmental hazards in the Niger Delta. Similarly, the five newspapers collectively published 20.51% of their reports on environmental degradation based on the effect of the degradation in the region, a percentage somewhat significant to draw the attention of the government and

corporate bodies to environmental hazards in the region. It was also found out that the newspapers, through their editorials, collectively used 0.08% of their reportage on the hazards in the region to suggest the prevention of environmental hazards in the region. The study, among others, suggested the inclusion of the reportage of the environmental issues in the Niger Delta in the editorial policies of newspapers in the country in view of the contribution the region has made to Nigeria's Gross Domestic Products.

V

Mikaela Vasstrøm

The influence of knowledge premise on local participation in natural resource planning

This paper explores the role of natural scientific knowledge premise in an environmental planning process in Norway. A knowledge premise in planning compromises deliberative democratic aspects of participation: it defines which arguments and perspectives are considered relevant and valid in the planning process, it outlines the room for relevant participants and the possible outcomes. A knowledge premise can lead to "instrumentalization" of knowledge and closure of possible egalitarian communication and deliberative democratic participation. The paper finds that new communication arenas between local and central institutions bring "professional" local knowledge perspectives in the planning process. However, the citizen's everyday life perspectives are not considered relevant in a "knowledge based" process. The paper concludes that a knowledge premise compromises the possibility of deliberative democratic participation in environmental planning, and argues that the use of "knowledge" in planning must also consider broader forms that the scientific or professional to open for democratic participation.

Alison E. Vogelaar & Brack Hale

Re-framing the Commons: Natural Heritage and the Case of Invasive Species

The Commons have proven a rich symbolic reservoir in the conceptualization of, and worries associated with, shared resources—natural and cultural. This paper examines the current controversy in ecology surrounding invasive species as it helps us understand the ways in which language frames about "natural" insiders and outsiders influence their policy and management and ultimately distort the dynamic reality of the commons—both cultural and natural.

W

Gregg Walker

Seeking Progress in the Climate Change Negotiations: Insights from the Unifying Negotiation Framework

This research examines the United Nations Framework Convention on Climate Change (UNFCCC) negotiations, particularly since 2009. The discussion focuses on the negotiation discourse (both in documents and direct observation) to understand how the climate negotiators work through difficult substantive, procedural, and relationship issues. The analysis applies the new Unifying Negotiation Framework and the Progress Triangle to discern what discourses are prominent in the climate change negotiations. The discussion features concepts from policy discourse studies and systems theories to explore and explain how factors such as culture, power, and capacity appear in the negotiations.

Steffen Werther

Brown Tree Huggers 2.0 - Germany's 'New Ecological Right'

This paper explores the recent efforts of Germany's far right to occupy and (re)claim environmentalism as their natural field of activism and politics. As a result of these efforts, we can observe the formation of a multifaceted "New Ecological Right", whose members envision themselves as successors and/or modernizers of a nationalistic environmentalist tradition. This "Ecological Right" is best understood as an invisible network

of very different groups. They range from radical vegan “*Autonome Nationalisten*”, through *völkisch* settlers and agrarian cooperatives, to rather esoteric circles and environmental activists organized in the *Nationaldemokratische Partei Deutschland* (NPD). These persons, structures and groups are connected by common goals and a certain degree of personnel overlap. Primarily, however, they rely on internet culture - websites and home-page links – to maintain networks and encourage cooperation. This paper analyses these groups and their virtual (and real life) connections. It links analyses of the professionally-produced magazine *Umwelt & Aktiv* and the NPD’s different (web) publications to the websites, internet forums and fanzines of more radical and autonomous groups, showing patterns of inclusion and exclusion – upon the basis of extreme German nationalism.

Simon West

Stakeholder participation, learning and ecosystem management: A global study of 146 Biosphere Reserves in 55 countries

Theories of adaptive management propose community participation as a key mechanism to ensure contextually relevant environmental protection and sustainable development whilst encouraging multiple-loop social learning. However, while community participation has strong theoretical support in the literature, and is seen as a way of increasing conservation efficiency, legitimacy and effectiveness, there remains little empirical evidence to back up the claim that community participation (as part of adaptive co-management) produces better environmental outcomes. This paper will provide a literature review of approaches to community participation in adaptive co-management before outlining a research project underway at the Stockholm Resilience Centre titled A Global Survey of Learning, Participation and Ecosystem Management in Biosphere Reserves (GLEAN). Through a powerful combination of a large-scale longitudinal survey, satellite data, and in-depth case studies, the GLEAN project will put key questions about participation, learning and ecological effectiveness to the test.

Lotten Westberg

Requested changes towards a more participatory and deliberative NRM practice - Conflicting roles and practices of NRM administrators

How do public NRM administrators understand their roles and tasks as agents of requested changes towards a more participatory and inclusive practice? What aspects of the practice of NRM administrators facilitate and what complicate the altered mission to develop more deliberative working methods? These are the main questions asked in this research project, exploring how NRM administrators create their practice in order to deal with and accomplish their particular understanding and response to existing and new requirements. The study is based on documentation of NRM administrators’ discussions and reflections during courses within the program, “Dialogue for nature conservation”. The findings show that the public administrators primarily see themselves as protectors of nature. The requested changes towards a more participatory and deliberative practice are perceived as incompatible with this role and therefore creates confusion and a stricture.

Lotten Westberg & Lars Hallgren

Didactics for the development of communicative capacity in multi-stakeholder forums for game and predator management

In this paper we focus on how the communicative capacity of multi-stakeholder forums can be developed. The aim is to lay a foundation for a discussion about 1) what “communicative capacity” might mean in a multi-stakeholder group of NRM decision makers; and 2) the didactic activities needed to support the development of such capacity. The empirical basis for is experiences of designing, leading and evaluating courses aiming to generate improved communicative capacity in the regional Game Management Delegations (GMDs) that were introduced by the Swedish Government in 2009, to allow greater local control over, and create legitimacy for, the game and predator policy. The paper is descriptive containing 1) an account of the design of the didactics of the courses; 2) an account of how the courses proceeded including results; and 3) a discussion based on our experiences. The paper concludes with suggestions for some general guidelines for such didactic.

Lotten Westberg & Stina Powell

Participate for women's sake? - A gender analysis of Swedish deliberative NRM projects

New participatory and deliberative NRM missions seem to have trouble influencing traditional top-down working methods among public NRM institutions responsible for their implementation. In this paper we contribute to this discussion by using a gender perspective in understanding how these missions are dealt with, and why, among NRM administrators at Swedish CABs. By paying attention to existing ideas of masculinity and femininity in the CAB organizations, we gain understanding about how these ideas effect how NRM policies are materialized. We ask what kind of expertise, tasks and duties are regarded as important and why and what are the consequences for more participatory and deliberative working methods? The suggestion is that these organizations are highly gendered leaving women administrators with the less high status tasks that are not in line with traditional scientific expert roles valued in these organizations. Participation has become a female coded line of tasks in the Swedish CABs.

Lauren Wheeler

Seeing the Forest For the Trees: Analyzing National Forest Policy Decision-Making Processes in Finland

Ecological sustainability and the importance of forests for social and cultural welfare has during the past decades created new demands on the previously timber production dominated forest policy in Finland. This thesis analyses Finland's National Forest Program and the perceptions of key actors in the decision-making process. The analysis generates a view as to how decision-making is influenced by power and majority consensus. It calls to question what communication processes are present to provide deliberation, collaboration and inclusiveness of relevant forest stakeholders and suggests what deliberative and collaborative approaches could contribute in an environment with such broad perspectives.

Deborah Wise & Melanie James

Participation or political positioning? An analysis of political positioning around a proposed 'citizen's assembly' on climate change

A discourse analysis of the speeches of the Australian Labor Prime Minister, Julia Gillard, and the Liberal National Coalition Opposition leader, Tony Abbott, was undertaken with the aim of demonstrating how the discourses used by each in relation to a proposed 'Citizens' Assembly' on climate change positioned the issue and the speakers. Discourse analysis has been used to research a range of issues within the social sciences, including climate change, however there are limited public relations studies into climate change that adopt this methodology. Public relations researchers using discourse analysis argue it provides a more critical evaluation of discursive practices and, for this reason, is especially appropriate for examining public relations texts. This study adds to current knowledge about communicating climate change mitigation policies, and also builds on recent work in the public relations/corporate communication field wherein a conceptual framework for analysing intentional positioning in public relations has been developed.

Stuart Wood

Communicating Misinformation: The Media's Role in Perpetuating Climate Change Denial

This research will be the first step in identifying factors that contribute to misinformation on climate change. Namely, who is most likely to accept or reject misinformation on climate change and from which sources. An experimental design will be utilized whereby participants will be randomly exposed to sources of misinformation on climate change. With variation only in the source, but consistency in the message, the participants will then be asked about their knowledge of climate change and their environmental policy preferences. The responses will be analyzed to see which sources are most effective in disseminating misinformation and to whom. I pose three hypotheses. First, misinformation affects all individuals regardless of the source. Second, the effectiveness of the misinformation is dependent on the political leanings of the individuals. Third, conservatives are more affected by misinformation than liberals. Finally, I hypothesize a negative correlation between misinformation and pro-environmental policy preferences.

Z

René Zimmer, Marta Kaiser & Jörg Welke

Socially balanced project development in environmental planning

At local level public support has proven crucial to the implementation of renewable energy or climate protection projects. A constructive stakeholder and citizens' participation process can increase the likelihood for public acceptability of any project. But it is important to integrate participation opportunities in an approach that analyse first perceptions and information needs of the local public and use results from analysis and participation for joint project planning and implementation. Based on several environmental communication projects in the context of local plans for renewable energy infrastructure and climate protection measurements we developed a new approach called 'socially balanced project development'. It consists of the analytical phase of the 'social site characterization' and the practical phase of 'participatory project planning and implementation'. Public engagement activities as citizens' conferences or focus conferences aim to serve as a 'hinge' between both phases.

Å

Elin Ångman

Communication and biodiversity – openings and closures for integration of Local and Traditional Knowledge in the design of IPBES

The world has failed to reach the targets set by the parties to the Convention of Biological Diversity, aiming at a significant reduction of the current rate of biodiversity loss. Great hope is now placed on IPBES (Intergovernmental science-policy Platform on Biodiversity and Ecosystem Services). IPBES is expected to strengthen the science-policy interface and should be transparent, credible and scientifically independent. IPBES should also recognize and incorporate local traditional knowledge (LTK). This paper reviews the papers describing the process of designing the IPBES with special focus on the integration of LTK. What are the conditions of creating an "open" organization open to incorporate different perspectives, and what is the risk of IPBES becoming a "closed" institution, mimicking the organization of previous failed attempts? There exist few studies of IPBES and with this paper we wish to contribute with knowledge concerning organizational openings for communication regarding LTK.

Elin Ångman

Openings for the use of feelings as legitimate arguments in the Swedish debate on the Right of Public Access to Land

In the ongoing participatory process where the future of the Public Access to Land is discussed the different parties have very different views on the development of the right. However, they use a similar fashion to support their arguments, often in the form of stories/narratives, of the emotions attached to ownership or use of land. Previous studies (Ångman 2012; de Buijs et al 2012) have shown that arguments of feelings and emotions in natural resource conflict are suppressed/changed in favour of scientific language, for example discussing biodiversity instead of emotions connected to the land. What makes it possible to use arguments of emotions in this particular context and not in others and what kind of solutions does this use open up for? This paper discusses these issues based on the theoretical concept of discursive openings (see Deetz, 1992).

Elin Ångman & Lotten Westberg

The future of Public Access to Land: The role of representatives of stakeholder organizations as brokers of learning for collaborative conflict management

The future of the Public Access to Land, PAL, (Allemansrätten) is a current issue in Sweden. To address contradicting interests regarding the PAL, the Swedish Environmental Protection Agency has decided to initiate a Dialogue Forum. Generally initiatives focusing on particular projects are insufficient for reaching the desired changes in the ways conflicting organisations communicate around natural resource management. We address this by study the possibility for an individual representative of an organization taking part in a dialogue process to act as a catalyst or change agent, a "broker", by studying potentials for learning regarding the disputes and how they can be dealt with, as well as how openings for learning provided by the participants of the dialogue

process are introduced to, perceived and dealt with by the organizations they represent. This is an issue of general importance for the field of conflict management and participation in environmental decision making.

Appendix

Peter Edwards¹ & Justine Lacey²

Can't Climb the Trees Anymore: Social Licence to Operate, Bioenergy and Whole Stump Removal in Sweden

This paper provides an overview of how the social licence to operate (SLO) of the Swedish forest industry has been developed and maintained over time, particularly in line with the introduction of European Union directives related to the rural development, environment and energy sectors that impact heavily on forests and forestry. For many decades, the SLO of the Swedish forest industry has been implicitly operating, and this has been shaped by the dominant discourses of the day. We can see these SLOs through the agrarian and industrial eras, however, this paper focuses on the social acceptability of the industry in the post-industrial, information/knowledge era.

In this post-industrial, information/knowledge era, the SLO of the industry has moved through several phases – certification, sustainable forest management (SFM) and now, bioenergy. In the first phase, companies obtained their SLO through certification schemes, where timber felling was acceptable, having been given the stamp of approval by environmental organisations. In the second phase, SFM was accepted by communities and society, as now forests were managed not only for timber values, but also non-timber uses.

More recently, a new phase has emerged – the green economy, including bioenergy. In 2009, the European Union enacted a directive on the promotion and use of energy from renewable resources, framed as one of a package of resources designed to combat climate change. Under this directive each Member State should achieve between 10-49% renewable energy by 2020. Forestry and agro-forestry were suggested as fuel sources due to the large amount of woody residue left in forests after timber felling. This material could be utilised through whole stump removal.

Whole stump removal has recently become a more mainstream practice in the Swedish forest sector. There is increasingly widespread social acceptance of this practice. It is framed as a necessary response to climate change, with a large amount of discourse built up around it. Bioenergy and whole stump removal is also framed in rural development terms - offering higher incomes and more diverse livelihoods for forest owners and their communities. The practice appears to have clear social, economic and environmental benefits. However, research has identified a number of problems associated with whole stump removal, including decreased biodiversity, nutrient removal and subsequent fertilization, soil acidification, and additional mechanical soil preparation threatening soil carbon stores. These problems have been overshadowed by the overwhelmingly accepted but conflicting climate change discourse.

Given these most recent developments in the ongoing SLO of the Swedish forest industry, this paper examines the role of knowledge production and accepted discourses in the creation and maintenance of an industry's SLO. By providing an overview of key legislative changes in the history of forest management in Europe alongside data from public opinion surveys and interviews with key industry stakeholders and communities, we explore the changing nature of the industry's SLO. We also explore the potential conflict that arises when new scientific knowledge and discourses emerge that challenge accepted standards of behaviour and require us to re-examine and renegotiate the terms of an existing SLO.

Darlene Farris-LaBar

“Communicating New Perspectives of the Commons Through Art”

1. Environmental Art as Global Communicator

Art can be used as a vehicle to support global communication and understanding to environmental matters. This presentation will be a brief explanation of how I am using creativity to communicate issues regarding debates about the commons.

2. Raising Awareness Through Art About Issues Regarding the Commons

Topics will include water conservation, land management, and the protection of ecosystems. This presentation will display how art about the environment can influence public awareness towards environmental and sustainability concerns.

3. Effects of Natural Resources and Eco-systems Through Current Stakeholder Engagement

My art is designed to embody the results of research through environmental interaction and the studying of land management, water conservation, and a variety of eco-systems such as spring peeper frogs from vernal pools, fiddler crabs from marshland and bees that pollinate the grand earth.

Extended Abstract

Art can be used as a vehicle to support global communication and understanding to environmental matters. This presentation will be a brief explanation of how I am using creativity to communicate issues regarding the debates about the commons. Topics will include water conservation, land management, and the protection of ecosystems. This presentation will display how art about the environment can influence public awareness about the commons, and towards environmental and sustainability concerns.

Unfortunately, not enough populations find a connection and the need to respect the environment. As people become more distant to our land, techniques such as art are needed to bring communities and the environment together. Today, fast lifestyles leave little ethical and moral practices towards the respect and preservation of our lands.

Through my art, it is crucial for me to shift my audience's experience about the environment and transform the way they value it so they will also support environmental protection. They come in form of art installations that use media such as sculpture, video, sound, graphic design, illustration and photography. The creation of my work requires scholarly research concerning the health of our natural surroundings and the vulnerable species that influence our future existence.

Research and discovery breaks the initial layer and provides me the chance to see more of my world while enhancing a new understanding of worlds within worlds. These forms are metaphorically composed of specific materials and media into sculptures that represent or challenge reality. Combining science, aesthetics, and technique, a reality is modeled in ways that communicate environmental activism. My work is designed to embody the results of research through environmental interaction and the studying of a variety of eco-systems such as spring peeper frogs from vernal pools, fiddler crabs from marshland and bees that pollinate the grand earth. These vulnerable species have large roles in the world we all thrive, during a critical point in time, with our planet currently existing in a fragile ecological state.

The following are some various works that will be discussed:

Water Has No Boundaries



My most recent work comes in the form a large-scale sculpture with the theme about water protection. It appears to be in the form of a mangled fence lifting off the ground, the sculpture, "Water Has No Boundaries" rolls across the floor like a flowing stream fragmented from the landscape. Inspired by the need for clean water the sculpture uses 1000 samples of water that were collected and preserved in glass bottles from 60 locations. Each bottle is labeled and corresponds to a range of locations on a map to further reinforce water having no boundaries; it is ever moving and can easily flow into another. This sculpture raises questions of the stakeholders role to protecting water that runs across property lines.

Rhythms of a Whole



"Rhythms of a Whole," at Sykes Gallery, Millersville University, Millersville, PA was an Environmental Art Installation with sound, video, watercolor paintings and sculpture. This show was developed around the research of the importance of bees to the environment. Since bees are ever flying across boundaries how do we promote an awareness and understanding of these small and vulnerable but, yet very important creatures to the general public and stakeholders.

Symphony on Shallow Water



This is an exhibit about vernal pools and the Spring Peeper frogs that inhabit these vulnerable bodies of water. Land development and pollution threatens Vernal Pools across the terrain. Without vernal pools Spring would not have those harmonic sounds of the tiny Spring Peeper Frogs. This exhibition offered sound, video, educational signage watercolor studies and sculpture to entice the senses and communicate a better understanding of Vernal Pools.

Mountains For Insects



This sculpture represents land mass and territories. A small hill for humans yet a mountain for insects. This investigation raises questions of whose land is it?

In conclusion, providing an experience of the natural environment with hope to create more stewards of the planet. My art is a way to provide an environmental experience that will also raise questions about our relationship with our planet. This presentation will inspire creative thought and educate the public of alternative ways to communicate sustainability, environmental awareness and various issues that concern the commons. Today, more than ever, there is a need for newer tools of communication to address major environmental and sustainability problems. Through this investigation, I will attempt to answer the question about how art can affect socio-cultural or political change towards the environment.

Marie-Ève Maillé & Johanne Saint-Charles

Distrust as a tool in an environmental conflict

Introduction

For decision-makers and the public, environmental issues create an increasing need for information (Senecah, 2004). The perceived legitimacy of information is highly related to the perceived trustworthiness of the source (Fox & Irwin, 1998; Senecah, 2004; Slovic, 1999). Relationships carrying information and trust are central in environmental conflicts (Daniels & Walker, 2001; Depoe, Delicath, & Aepli Elsenbeer, 2004; Lewicki, et al., 1997), and trust may be used as a tool in understanding and managing environmental conflicts (Senecah, 2004).

Through the case study of a conflict related to a wind farm project in Québec, Canada, this paper will propose a better understanding of the tight relationship between trust and information in environmental conflicts. Who do people trust to provide relevant information, and who they do not?

Theoretical framework –Trust and information

Coexisting in dynamic social relationships: Trust and distrust

Trust and distrust are psychological and dynamic states linking two individuals (Kramer, 1999). Lewicki et al. (1998) proposed that trust and distrust are not opposed, they rather are “confident positive expectations regarding another’s conduct” on a specific issue in the case of trust and “confident negative expectations regarding another’s conduct” on a specific issue in the case of distrust (p. 439). Trust and distrust can thus coexist simultaneously in a relationship, vary independently (Lewicki, et al., 1998), and are embedded in social relationships (Granovetter, 1985). Understandably, trust is more likely to blossom in a relationship between members of the same group, because of homophily (McPherson, Smith-Lovin, & Cook, 2001), and knowing that values are shared decreases the perceived risk of trusting a person (Kramer, 1999); trust in institutions follows the same pattern (Peters, Lang, Sawicka, & Hallman, 2007; Slovic, 1993, 1999).

Information in uncertainty: who to believe?

For someone exposed to a risk, the least common behavior is systematic information-seeking efforts from unfamiliar channels (Griffin, et al., 1999). In uncertain situations, people often rely on proxies to acquire information, because gathering information alone may require many interactions and much information management (Kramer, 1999). These proxies can be information relayed by third-parties, or someone bridging two individuals unknown to each other (Burt & Knez, 1995; Kramer, 1999).

In environmental conflicts, the struggles for the right to know are illustrations of the widespread perception that information is undisclosed (Depoe, et al., 2004). This raises suspicion toward the actor who is believed to withhold it, providing a fruitful context for distrust to blossom and once installed, it is especially hard to invalidate (Kramer, 1999).

Suspicion and distrust can also be directed to institutions, decision-makers, and experts (Lewis & Weigert, 1985; Peters, et al., 2007; Siegrist, Cvetkovich, & Roth, 2000; Slovic, 1993). Generally, each provider of information claims a status of truth for the information they produce and diffuse, and discredits the sense made by their rivals; the objective is to see their own narrative dominate (Mumby, 1988).

Methods

This paper (in its full version) will propose a closer look at the role of distrust with regard to information in the build-up of a conflict related to a wind farm project in Quebec (Canada). More details about the mixed methods, the context of study, the sample, and the particular situation of Quebec regarding impact assessment in environmental conflicts (with its official public hearing office) will be available in the full version of the paper.

Sampling design

The data presented here came from semi-directed interviews conducted between January and May of 2010 with 93 individuals (58 men and 35 women; 74 opponents to the project and 19 supporters) taken among the 308 individuals who were actively involved in the public hearings process concerning the wind farm project.

Data collection and analysis

No direct questions about trust were asked to the participants, but perceptions of trust and distrust were operationalized through the following questions: Do you think that someone was withholding information from you? If yes, who withheld what kind of information exactly?

In this abstract, only the quantitative results to these questions are presented. The full version of the paper will also include the discourse analysis of the answers made to these specific questions, adding therefore a qualitative dimension with excerpts from the interviews. Already, preliminary results show the build-up of more cohesive “like-minded communities” (Scherer & Cho, 2003) among the participants.

Results –Undisclosed information and distrust

Overall, 15 actors were identified as withholders of information. Most of them were groups or organisations rather than specific individuals. Withholders received between 1 and 57 mentions, with an average of 15.6. Each participant identified between 0 and 7 different actors (mean of 2) as potential withholders of information, with 11 (12.1%) of them indicating that no one was withholding information; 10 of these were supporters of the project (more than half of the supporters in the sample).

The most-cited withholders of information were: developer (57 citations out of 91 participants), Local authorities (53), Regional authorities (34), Environmental Impact Assessment (EIA) firm (23), government (22), and Hydro-Québec (16).

For each actor identified, participants were asked to explain what was undisclosed; an actor could withhold more than one thing.

Almost 74% of the participants mentioned that the developer withheld “details of the project development,” e.g., characteristics of the project, possibilities of expansion, etc. Some perceived that the developer withheld information as long as they could or misled the population with false or incomplete facts.

Distrust was expressed by many opponents about the Local and Regional authorities. Many participants suspected nothing less than conflicts of interest and corruption. Also, many participants said that the negotiation and decision processes regarding the project were hidden. However, a lot of them said it was the result of a never acknowledged lack of “competence” or expertise. For them, the Local and Regional authorities did not have enough knowledge to lead such processes.

The main criticism aimed at the EIA firm was that their work was of poor quality because they hid the negative impacts of the project. Another participant said that the EIA firm “*followed a ‘seller logic’*”, trying to sell the project to the population.

The government of Québec was also perceived as a withholder of information. The main point that the government withheld was the justification for the development of the wind energy sector. People questioned the way it was done, especially the political decision to have this energy being developed by the private sector instead of Hydro-Québec (the state-owned energy company), but also the costs and benefits of wind energy for the province.

Discussion: The seed of suspicion

When one perceived that an actor could not be trusted, in most cases that actor was not considered a source of information (Babrow, 2001; Brashers, 2001). This means that even accurate information from said actor was being disregarded because of the distrust it inspired (Burt & Knez, 1995; Fox & Irwin, 1998; Kramer, 1999; Peters, et al., 2007).

As the conflict developed, a great majority of participants became entrenched in their position: supporters increasingly trusting supporters and distrusting opponents and vice versa. The distrust was constructed through social networks (Rogers, 2003), as the groups were framing the issue, their adversaries and themselves (Gray, 2003). Trust was almost blind between members of the same group (either in favour or against the project), while distrust toward the other group (especially from the opponents to the supporters) seemed to be just as high.

When opponents decried a lack of information (BAPE, 2010), they in fact expressed a lack of trust in the information diffused (mainly because of its bearers). The opponents’ demand for more information was thus unsolvable because they were asking for more information they could trust (i.e. information that suited their cause) from actors they considered to be untrustworthy. This information would have given legitimacy to the opponents’ voice, a legitimacy that is essential for public participation (Senecah, 2004). However, their adversaries (in this case the supporters of the project) had no reason to fuel the public debate with information they, in turn, did not trust. The two discourses were at this point irreconcilable, but each side wanted to see its own prevail (Mumby, 1988). Therefore, one of the main problems in this conflict was not uncertainty, but rather the certainty expressed by each side, which is consistent with definitions of trust and distrust that imply a shift toward certainty (Burt & Knez, 1995; Kramer, 1999; Lewicki, et al., 1998). This entrenchment contributed to the escalation of the conflict and to social division (BAPE, 2010; Lewicki, et al., 1997; Same authors, in press; Walker, et al., 2010).

The opponents’ strategy was to spread suspicion, and thus distrust (Fein, 1996; Kramer, 1998), through discussion networks, spreading the idea that their adversaries and the information coming from them were untrustworthy. The suspicion affected the credibility of the actors with a strong influence in the negotiation and decision-making processes, and created fertile ground for rumours and unverified information to grow (Fein, 1996; Kramer, 1998), like suspicion of corruption, conflicts of interest, and incompetence in the case of the Local and Regional authorities. This perceived incompetence fed a lack of institutional and social trust and

is consistent with the literature on trust and risk perception (Frewer et al., 2002; Huijts, et al., 2007; Lewis & Weigert, 1985; Peters, et al., 2007; Priest, et al., 2003; Siegrist, et al., 2000; Slovic, 1993).

Also, many opponents did not trust the EIA firm, which they perceived as being biased in favour of the project; hence, even the institution that could have made an independent scientific assessment of the impacts was suspected of having failed at its role. This is another example of a case in which technical risk assessments had less influence on risk perception than trust-destroying information (Kramer, 1999; Slovic, 1993). In this case, the experts and their arguments had less authority than postulated in the deficit model, reinforcing the idea that such a model has important limitations (Endres, 2009; Fischer, 2000; Frewer, et al., 2003; Kinsella, 2004). For many opponents, suspicion was not only related to the specific project, but to the whole development of the wind energy sector in Québec, perceived as inadequate and disrespectful of the population. They did not trust their representatives at any level to protect them from the actions of the developer and therefore expressed extended social and institutional distrust (Lewis & Weigert, 1985; Siegrist, et al., 2000).

The perception that so many actors withheld crucial information fed into a belief in conspiracy theories (Goertzel, 1994; Kramer, 1998, 1999) for many opponents, and distrust contributed in giving meaning to their opposition of the project. Not only did the opponents' group acquired legitimacy this way, it also gained autonomy and thus power (Friedberg, 1993) over the actors who were believed to withhold information. Repeated demands to access information were merely an argument, because the most important for opponents with this strategy of suspicion was to discredit these powerful actors by spreading the idea – justified or not– of their untrustworthiness.

Furthermore, the strategy of suspicion contributed to the cohesion between the opponents to the project (Lewicki, et al., 1997; Scherer & Cho, 2003) through a consolidation of the opposition discourse. The fact that many opponents cited the very same actors and the same undisclosed information showed that consolidation was occurring (Gray, Hanke & Putnam, 2007). The opponents were positioning themselves in relation to the supporters, and against common and untrustworthy adversaries.

Conclusion

Public participation in environmental consultation processes implies not only access to information, but also trust in the providers of information. Without trust, information will likely be disregarded. However, with trust, information will likely be taken for granted and diffused further. Among themselves, opponents and supporters showed high levels of trust. Distrust regarding the other group was also very high, especially from opponents to supporters. Distrust was fed by lack of information and suspicion. It was also used as a strategy to discredit adversaries who were considered untrustworthy.

This study shows that the perception of untrustworthiness of the provider of information, diffused through social networks, can have a great influence on the position taken by an individual.

Samantha Senda-Cook

Masculinity and Making Do: Outdoor Recreation's Risky Rhetoric

Hiker One: When we were on the Canyonlands trip. It was like the second day—I mean looking back at it now, I really enjoyed it—but at the time, I was like miserable—.

Hiker Two: Miserable. The last mile was just so painful, but you didn't have a choice. It wasn't like you could just give up and sleep there for the night.

This snippet of a conversation between two hikers highlights a common framework for engaging in outdoor recreation: a masculine one that expects and even encourages persevering through pain. This framework creates a culture in which one is not surprised to go through misery to be rewarded with an amazing view or a feeling of accomplishment. Moreover, people who recreate outdoors sometimes devise situations in which they have no choice but to ignore pain and risk or call out Search and Rescue. Although not all outdoor recreators adopt this masculine view of recreation, an expectation of *making do* is almost ubiquitous.

Michel De Certeau contends that practices of making do are ways for people to get by in a society in which they feel they do not belong or in which they are denied privileges. For example, marginalized groups of immigrants may have to learn a new language and adapt to a new way of living while holding on to relationships and practices that are culturally important. De Certeau states, “By an art of being in between, [they] draw unexpected results from [their] situation” (30). Such actions allow people to take the conditions under which they live and “make something else out of them” (32). In de Certeau’s conceptualization, when people make do, they subvert a problematic system. For outdoor recreators, making do means understanding and surviving within the confines of nature’s rules. Nature, especially weather, is capricious and dangerous, at times; humans must try to get by as best they can with what they have. The idea of making do is appealing to some outdoor recreators for its potential to challenge. Even among those who take a more relaxed approach to outdoor recreation, a common idea is that suffering is a necessary, and even enjoyable, part of outdoor recreation.

To understand how this masculine perspective makes its way into the performances of outdoor recreators, I analyzed twenty in-person interviews I conducted at Zion National Park. I contend that outdoor recreation discourses not only position making do as part of the attraction for these activities, they also normalize risk with masculine language, creating a context that connects risk-taking behaviors with identity affirmation.

Masculinity and Outdoor Recreation

The construction of masculinity plays a large role in sports, in general, and outdoor recreation, in particular. People who adopt masculine characteristics approach sports as a challenge to be met and overcome. Even when faced with physical pain or injury many participants will continue playing the sport or doing the activity to avoid challenges to their masculinity. Atkinson reports that the triathletes he studied derived pleasure from suffering through the hard training. He argues, “For many triathletes, it seems, the ability to physically endure de-routinises the drudgery of banal and disconnected everyday life” (303).

Almost all outdoor recreation involves some kind of risk. People voluntarily engage in these risk-taking behaviors, deriving pleasure from “seeking *control over the seemingly uncontrollable*” (Lyng and Matthews, 89). Deborah Lupton explains, risk offers “ways of adding thrills to life, testing one’s boundaries of fear and endurance, proving one’s adulthood or masculinity” (157). Participants in a study about skateboarding described “the joys of taking risks” as their reasons for engaging in such an activity (Young and Dallaire, 240). When engaging in risky behaviors, participants struggle with a loss of control over some elements and come to rely on the control they have over their bodies, skills, and preparedness to escape danger. For example, “Experienced skydivers, are typically only anxious on the ascent, as plane takeoffs (the most dangerous aspect of flight) are when these skydivers feel they have no control” (Celsi, Rose, and Leigh, 8).

Steven Lyng and Rick Matthews call this play between control and loss of control *edgework*. They explain, “Edgework is best regarded as a fully embodied practice in which the ‘mind’ . . . is extinguished by the demand for an ‘instinctive’ bodily response to saving oneself” (87). They adopt an edgework approach to understand why people engage in high risk behaviors and why there has been an increase in recent times. The edgework model purports that people are drawn to risky behaviors to get a particular experience. For example, people who normally would not take a risk will do so in a national park because they think it will produce the desired experience (Senda-Cook). The desire to challenge one’s self with unbendable, material reality is part of what draws people to engage in hobbies that necessitate these interactions.

Although risk-taking conventionally has been associated with men and masculinity, the relationship between these concepts is more complicated. Risk taking is not sex-dependent but rather gender-based. Taking risks is part of a gender performance (Butler; Engstrom). For example, Nate Furman, Wynn Shooter, and Scott Schumann's study did not confirm previous findings that men will ski more dangerous slopes to impress women and found that all-women groups can be just as competitive as all-men groups. "The [risk] acceptance heuristic may apply regardless of sex" (Furman, Shooter, and Schumann 465). In other words, people do not take risks in recreation because they are men or women, biologically. They take them because doing so conforms to a perception of masculinity or femininity and what is expected for certain activities. In attempting to understand why people engage in high-risk recreation, Michael P. Schrader and Daniel L. Wann found that sex was not a strong predictor of involvement. They suggest, "Perhaps a better method would be to examine the individual's level of masculinity and femininity. Rather than just being 'male' or 'female,' perhaps measuring the respondent's level of masculine traits and feminine traits would provide a different, and more informative perspective in regards to participation in high-risk recreation" (438). Taking risks is a gendered practice that contributes to people's gender performances (Hannah-Moffat and O'Malley). Approached in this way, it is important to try to understand what people get out of these practices.

A Masculine Performance: Making Do and Risk

In this analysis, I was interested in how the masculine paradigm manifests in the rhetoric that recreators themselves use to describe their experiences. I argue that stories describing experiences (whether fact or fabrication) combine and circulate to create a context for outdoor recreation. This context shapes not only how people choose their recreation activities but also how they interpret their experiences, cultivating a powerful discursive system in which outdoor recreation happens. Specifically, I study the transcripts of a set of interviews I gathered at Zion National Park in 2009. Among outdoor recreators, making do is part of the attraction to outdoor recreation. Recall that to make do, in this context, means to suck it up, tough it out, take it, or, in contemporary parlance, "man up." Recreators frame this masculine approach to outdoor recreation as a response to the "broader culture [that] encourages immobility and acquiescence" (Atkinson, 307). The discourses surrounding outdoor recreation create a space for masculine performances by both men and women that seem appropriate and even desirable. People talk about themselves and their recreation practices in terms of the masculine paradigm even when such an approach does not support their stated goals. The most ubiquitous types of talk that constructed and perpetuated the masculine paradigm are those that show the recreator as maintaining the right attitude, framing outdoor recreation as inherently risky, and finishing the trail.

Maintaining the Right Attitude

One aspect of the performance is to maintain the right attitude both during the event and afterwards in the telling. In reporting how one behaved during the event, it is important to show that the speaker did what was necessary to get through the event. In discussing it afterwards, people usually laugh about the event, if they knew it was a bad situation, or say they've never had a bad experience (even if by most standards, they have). Deriving pleasure from even the bad experiences is critical because part of the point is to engage in these risks. This is clear in a comment that followed one interviewee's story about hiking the Manchu Pitchu trail in a snow storm with severe bronchitis: "I truly thought that *OK, this is it, my health is ruined; I'm really going to have serious, long-term problems with this*. So, that's one of my memorable bad experiences. You know, you usually laugh about these things later. I mean, even the bushwhacking one [that happened just a day before], we're already laughing about it and it was horrible. You know, it happens. So, stay home." Her attitude that if people are not ready to laugh at a horrible experience, even a death-defying experience, then they should stay home embodies the masculine performance.

Framing Outdoor Recreation as Inherently Risky

One aspect of the performance of telling about outdoor recreation is to characterize the nature of outdoor recreation as inherently risky and that one must make do and acculturate to the risks. Part of the reason that people laugh at the bad times when they recreate is because if they did not have that attitude they would probably not continue to recreate after a bad experience. People who frequently recreate outdoors know that it is not always perfect and that often times, one must face and encounter danger. In fact, that is part of the attraction. In talking about outdoor recreation, most people characterize it as inherently risky. One person, trying to think of a bad experience, stated, "I don't know that I could even think of anything that really

went sour. Um. I mean I've had things happen. I've been thrown off horses and stuff like that, but that's just the way it is, you know?" The risk itself becomes not only part of the activity but also part of the reward. One woman stated it well, "We've gotten into some tight spots occasionally. But we've always got out of it. So, it's all part of the fun of it, really."

Finishing a Trail

In the performance of telling one's experiences with outdoor recreation, one's ability to adapt to the risks and push through to finish a trail is closely connected with one's sense of self. As Lyng explained, when people engage in edgework, they feel as if their true self is shining through in the experience. They are pushed to the brink and can come out alive and that shows what they are really made of, in their own eyes. In my interviews, some people seemed truly fine with not finishing a trail. They didn't subscribe to this masculine paradigm of finishing at any cost. But most people said they would prefer to finish and if they didn't, they would look forward to their next opportunity to do so, which indicated that they hoped to prove themselves the next time out. Most people are willing to turn around in the face of exhaustion, pain, or bad weather. When framed in this way, they were assured that they had a good reason to turn around. Even among people who like to take it easy when they recreate, the impulse to finish a trail can be strong. For example, while talking about goals in recreation, a woman said she likes to relax when she comes to recreate and her husband said he "likes to push the envelope a little bit." But regardless of these different goals, both of them reported that they always finish trails. She said, "We never don't make it." And he said, "I would kind of feel like I didn't accomplish what I set out to do." Then, she added, "That's right. Keep going. You might rest for a little bit, but you're going to keep going until you finish it." And he confirmed, "Exactly."

Conclusion

In talking about outdoor recreation, many people frame themselves and their activities through a masculine paradigm. Making do in tough situations is viewed as necessary and risk taking is considered "part of the fun." Although scholars report widely on the risks men take in many situations, this analysis supports findings that indicate in some sports both men and women take many risks because they are considered necessary to succeed in the sport. When acculturating new people to the risks of outdoor recreation, park staff and experience recreators need to both normalize risks and teach people when the danger is too great. Without risk acculturation, people would not explore natural places in nearly the numbers they do.

However, a masculine framework for processing risks may make it more difficult to determine effectively when the danger in a situation is too great. The thinking that one is expected to push their physical limits leads to many injuries on some of the easiest trails in national parks. Recreation novices simply overestimate their abilities. Likewise with increased frequency, recreator experts become accustomed to the dangers of outdoor recreation and learn to live it them. This creates a challenge for risk communicators. In Laura Rickard, Katherine McComas, and Sara Newman's study of risk communication in national parks, they found that visitors received messages from many different places about risk. All of the messages in national parks impact what decisions visitors make. This makes creating appropriate risk communication more difficult. When recreators laugh off their almost drowning or getting lost in the desert or having their campsite disturbed by bears, they contribute to the expectation that recreation should continue despite these problems. This prepares people for possible problems but it can also raise the threshold of danger acceptance, making recreation more dangerous overall. This kind of talk both reflects and creates sensibilities about what it means to engage in outdoor recreation. Being "scared shitless," as one of my interviewees put it, is not enough to make someone quite. Not only do the recreators need to get through the experience, they will likely have to get over that fear to do the activity again. This expectation can prepare people but it can also create a barrier for those interested in outdoor recreation but afraid to try it. The rhetoric that many recreators use to describe their experiences frames outdoor recreation as a rewarding struggle, creating a context in which misery is normal and even, in retrospect, enjoyable.

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Stinne Storm

Handbook for Urban Environmental Citizens

- a) Topic: Citizens projects and the value of actions towards improvement of city environments
- b) Research approach: "*Bend in the River*" a SLC local Environmental group, share their experiences, with local project-development.
- c) literature:
The Untroubled Mind, by Agnes Martin 1973 — Looking at writings for the public
Game and Fish Handbook, Leopold 1915 — looking at history of environmental communication

As a citizen of Göteborg I had a publication dropped in my mailbox in the summer of 2011, this was a colorful presentation of the city's current demographic issues, in relation to the history and former "nature" of the city. I write nature, on purpose while I want to express the idea of a similar project, only here working with the nature of the city - or the city's relationship to its nature, specifically. I would like to argue that as much as the demographic development and other challenges of the modern city, the way and to which extend this Urban Environment relates, and take responsible for its nature, will shapes the life of the human lives within an urban situation - and so the future voices that will be dealing with the aspects of Environmental Communication.

The Swedish publication of the city of Göteborg aimed to engage the citizen in the possibilities for action, as well as informing the inhabitants of everyone being a part of an living environment, constantly changing and always in the need of adjusting to the larger picture or plans with the actual "state of affairs".

The publication was not written by politicians or funded by any corporation, it was the city informing its inhabitants, on behalf of the local authorities. I would like to make a research project on the value of the different urban / nature projects in SLC. The different activities that is taking place both locally and of a broader scale if related, to find out which of these many small scale act that benefits the most - and how.

My reason for mentioning the publication is that I would like this research to "return" to the people and places that will be the topic for the research, as an ethic gesture, I would like form the beginning to incorporate the aspect of visual communication, as to the nature of urban / nature project. I think "showing" is vital, especially when it comes to communicate issues - maybe even crisis situation, that are so vast and complicated as our environment. Also I would like to work on an elaboration of a metaphor for a kind of title for this project, for now I could call it "*handbook for urban-environmental citizens*" - which would translate into "*handbok för stads-miljö medborgare*" in Swedish,

(I would aim to have an overview of local activities form the city of SLC) - especially draw the attention of the ideas and event that could be relevant for Inner Mountain Region as well as the Nordic cities of Sweden.(perhaps as a sister-city relationship, through an architectural objective) My hope is that it might be possible and useful to adopt thoughts and ideas, and that the shared attention for local activities in both countries could accentuate both places' successful experiences - or failures, since they can teach us vital lessons too, though they do not show up as immediate efficient. I am aware that this is not addressing the many critical aspect of the environmental movement today, but I would like to focus on peoples' relation to their close environment as to broaden the conception of nature - as not being something distant, but a part of their neighborhood, and thereby aim to raise conscience of shared responsibilities wider.

1. When mobilizing communities - which communities are then chosen and who manage to develop / create something that will prevail after the event.
2. who and how will -say pocket parks (confetti parks) be used, and do they manifest themselves as a piece of city nature - or can they, which would be wonderful, point to "real" nature in way that motivate people towards experiences / choices outside their (local) city.

3. What are the less successful events / initiatives and why do they fail.
4. Who do we want to improve our cities for, and what do we see as architectural - or urban living successes

I will look at public and semi-public spaces (parks, open places. I like to address the efforts to provide public parks and how control / directed choices manifests itself in relation to the problem of e.g. homelessness, violence or the sense of uneasiness.

Who and what has been tried to explain efforts mentioned above: exacerbation rather than eradicate the sources and perception of uneasiness. And to what extent the modern approaches today, succeeds to bring nature into urban peoples' awareness. I would like to try to contribute and clarify the values of the actions of today, when work is being done to tighten and mobilize citizens relations to their given environment.

My aim is to establish a platform of information partners to draw from, for this paper. I see this approach as a way to get in contact with the people that are involve and carries out project to the benefit of the environment of urban nature, in relation to environmental awareness.

In a broader scale, I would wish to follow a project, ideally from the beginning and hopefully during the study year, up til the COCE next spring -where this paper could serve as a threshold for a wider study and become a forth running information gathering and survey with the practitioners of the environmental communication among the citizens. I would like to participate in your conference in Upsala, to present the progress of this predict, as well to hopefully establish a connection for future sharing between these to places. I see the engaging into the strategy of local thinking, as i possible international network. I wish to communicate the idea of local international networks.

Gregg Walker, Miriah Russo Kelly & Julie Elkins Watson

Collaboration for Resilient Ecosystems and Communities? The Partnership for Coastal Watersheds Project

Extended Abstract

Coastal Communities and Climate Change

Coastal ecosystems and communities throughout the world are on the front lines of climate change. The coastal regions of the United States offer no exception. A recent NOAA report notes that “Our nation’s coasts are particularly susceptible to climate change” (NOAA, 2010) and that the implications of climate change are expected to be far reaching for coastal communities, economies, and ecosystems. According to the report, *Resilient Coasts: A Blueprint for Action*, produced by the Heinz Center and Ceres:

Sea level rise, temperature increases, changes in precipitation patterns and other climate related changes are expected to occur and to become increasingly more severe over the coming decades. The need to adapt to these climate-driven changes and to better manage existing coastal risks is obvious and immediate. Changing climatic conditions pose an unprecedented threat to U.S. coastlines, where the majority of our population resides and the majority of our economic activity occurs. (2009, p. 3)

As Hale and colleagues (2011) observe, “Coastal communities and decision makers urgently need to develop pragmatic, cost-effective strategies to protect both natural and human communities from the dramatic changes that are already underway due to climate change” (www.thesolutionsjournal.com). They advocate “ecosystem-based adaptation” which includes a “range of actions for management, conservation, and restoration of ecosystems that help reduce coastal community vulnerability and increase resilience.” They surmise that adaptation can be cost effective and generate a number of benefits, including (1) coast-effective shoreline protection, (2) sustaining local livelihood and contributing to local economies, and (3) carbon sequestration and reinforcement of mitigation efforts. (www.thesolutionsjournal.com)

The *Resilient Coasts* report and *Solutions Journal* article point to the significance of coastal impacts from climate change and the need for adaptation strategies. While climate change adaptation strategies and action plans can emerge at any scale, work at the local, community level is essential. In a recent report on the importance of an ecosystem-based approach to adaptation, the International Union for Conservation of Nature (IUCN) includes local community concerns in its recommendations, such as:

- Restoration activities should be promoted through participatory community agreements established at local levels.
- Community networking is the key to effective Ecosystem-based Adaptation (EbA).
- Development of a social framework allows for permanent interaction among all kinds of actors and stakeholders, as well as local communities. In this regard, the development of appropriate institutions at local, regional and national level is vital to the success of EbA in a social context.
- Initiatives should include the establishment and consolidation of networks of relevant stakeholders and the development of local community agreements that focus at management of natural resources (e.g. water), ecosystem restoration and conflict resolution.
- A special effort is required to raise awareness of capacity building needs, and to better resource and implement capacity developments. (Perez et al., 2010, pp. 162-164)

Recognizing the impacts of climate on coastal ecosystems and communities in Southwest Oregon, the Coos Watershed Association (CWA) and the South Slough National Estuarine Research Reserve (SSNERR) have initiated a project, the “Partnership for Coastal Watersheds,” to involve local people in discussions and actions related to climate change generally, and more specifically issues of ecosystem and community resilience such as vulnerability, adaptation, and sustainability.

The Partnership for Coastal Watersheds

During the Winter of 2009/2010 the South Slough National Estuarine Research Reserve and the Coos Watershed Association invited local landowners, technical advisors, and interested individuals and organizations to join them on a new approach to managing coastal watersheds. CWS and SSNERR leaders envisioned a partnership that would focus on the 35,155 acre area of the South Slough watershed and several small watersheds that drain to the Pacific Ocean between Cape Arago and Bullards Beach (the coastal frontal watersheds) in Southwestern Oregon. The PCW, the conveners hoped, could provide local communities (such as Charleston and Coos Bay) with a way to anticipate and respond to the local effects of climate and land use changes (Coos Watershed Association).

Announced initially on the Coos Watershed Association's website, the PCW was formed to address ecological, economic, and social needs of the area. As the South Slough and Coos Watershed Association staff began to conceptualize the PCW, they asked a university-based team of researchers and facilitators to work with them on matters of organizational design, agenda, facilitation, and evaluation. They wanted to ground the PCW approach in Collaborative Learning (Daniels & Walker, 2001). The paper's authors serve on this team.

In developing applications to fund the PCW, Coos Watershed Association and South Slough leaders identified two core premises and questions for the project.

- *Project Premise 1:* The local effects of climate change and changes in land use have the potential to affect coastal communities' our community's quality of life and long-term economic viability.
- *Corresponding Question:* How can the coastal communities plan ahead to address these potential changes?

- *Project Premise 2:* The coastal communities do not have an effective way to collaborate or make decisions about the opportunities and issues that need to be addressed now and in the future.
- *Corresponding Question:* How can our community effectively address opportunities and issues?

The conveners of the PCW invited participation from a wide variety of groups, including Tribes, landowners, scientists, government leaders and staff, private industry personnel, non-government representatives, and interested citizens. They hoped that the PCW participants would identify voluntary watershed management actions designed to characterize and respond to the many pressures that changing climate and land uses present and discuss incentives to encourage implementation of these practices.

With climate change as a driver, SSNERR and CWA staff focused on watershed issues as they extended PCW invitations. The watershed emphasis featured four interrelated elements: (1) Watershed Assessment and Visioning, (2) Watershed Management, (3) Watershed Status and Trends Monitoring, and (4) a State of the Watershed Information Website (Coos Watershed Association).

The Website would be a key communication tool for PCW members and the broader public. It would include meeting schedules, agendas, minutes, visual materials, and monitoring data along with the State of the Watershed assessment. A biennial report would summarize project progress and help the project team and our community to understand changes in the watershed, and help plan future management actions.

The PCW project is ongoing, led by a steering committee that represents the diversity of the coastal region. The first two years of the project have been funded by a grant from the Cooperative Institute for Coastal and Estuarine Environmental Technology with additional funding from the Oregon Watershed Enhancement Board and the Laird Norton Family Foundation. (Coos Watershed Association)

Evaluating the Partnership

This paper presents an evaluation of the Partnership for Coastal Watersheds (PCW) Project. First, the PCW is described and PCW meeting activities are discussed. Second, the essay presents the evaluation design; methods that include interviews, observations, meetings feedback, and a PCW member survey. Data are

analyzed with the Progress Triangle (Daniels and Walker, 2001), a sustainability square or “four legged stool” (Maffi, 2007), and resilience concepts providing interpretive frames.

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