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Western Washington University
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www.societyforhumanecology.org

“Integrative Thinking for Complex Futures: Creating Resilience in Human-Nature Systems”

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Introduction

The XVI International Conference of the Society for Human Ecology (SHE) which took place on 10-13 September 2008 at the Huxley College of the Environment, Western Washington University, in Bellingham (Washington State, USA) assembled about 200 participants from all continents, representing different disciplines (www.societyforhumanecology.org). The program consisted of a mix of plenary keynotes and a variety of concurrent sessions, divided into smaller symposia and roundtables. The overall atmosphere was pleasantly relaxed, the weather was fine—apparently a novelty in the north-western US “wethole”. Needless to say that the ensuing report is a personal one, reflecting the academic interests of the author.

Achieving green building processes: Canada as the world leader

Among the keynotes, a highlight was certainly John B. Robinson’s lecture “Being undisciplined on and off campus: Issue-based interdisciplinarity and the Center for Interactive Research on Sustainability”. As “we have islands of sustainability in a swamp of business as usual” it seems important to work on these islands and connect them. Robinson started off with a broad theory approach and definition section before he discussed interactive social research and its application in Canada, specifically Vancouver. Sustainability means desirability: Sustainability is an emergent property of a discussion of desired futures, and there are different courses of action to be taken. Noting that a “biophysical systems view” may not coincide with the “actor system view”: Each one views the other as a minute part of their own—Robinson hints that (green) projects need visualization, yet still have limited effects and duration.

We need to foster lasting social change by means of social mobilization through concrete issues, e.g. urban development. Robinson’s immediate, concrete goal is to render the whole UBC campus “net energy positive” within 20 years. The ultimate goal is to make Canada the world leader in constructing “green buildings”. Both goals



require visualization and simulation techniques to foster community engagement, followed by partnerships and strategies for regional implementation.

A powerful argument in favor of a regenerative building process is: "Be cheaper!" The building process implements sustainability principles: It is "green", uses renewable energy and exports energy. It produces "happiness", well-being for the people. And it is cost-effective and "smart".

Cultural dimensions of climate change: Paradigm changes in society, science, and philosophy

"Cultural dimensions of climate change" was organized by Thomas Heyd, University of Victoria (Canada), a whole day symposium, split up into three sessions, with an emphasis on philosophy and featuring interesting presentations and challenging discussions. Cultural frameworks comprise the ways of living, involving values, beliefs, habits, practices, institutions and material artefacts that condition the production of tangible and intangible goods and services needed for the satisfaction of people's needs and wants.

Cultural patterns emphasizing human "embeddedness" in the natural world are associated with adaptive behaviors, which reduce vulnerability to environmental change by acknowledging the dynamic nature of the natural environment and encouraging the development of appropriate social systems. Heyd draws the conclusion that it may be of key importance to consider the manner in which the separateness from nature, which to a large extent has characterized "Western" ways of thinking, may be a source of maladaptive behavioral patterns. He concludes that a shift in cultural patterns, which takes into account our embeddedness in natural processes, may contribute to the lowering of vulnerabilities.

Marcel Cano, University of Barcelona, introduced the term of "cosmovision" in his presentation "Cosmovision, culture, and climate change". Cosmovision is the view in which we perceive the world. Cano concludes that we need a cultural therapy to treat the global addiction to consumerism, yet he admits that cosmovisional changes need a long time.

Using a different terminology, Kathleen Halvorsen endorses the need for change as well, stating that climate change perceptions are often wrong, due to incorrect cultural models. (She also suggests "The Great Warming" to be a much better film than "An Inconvenient Truth" by Al Gore.) Halvorsen presented the results of a study that examined these relationships using a randomized mail survey of 1500 upper Midwestern U.S. residents. She found that accurate knowledge, concern about climate change, environmental orientation, and political beliefs were among the factors playing important roles in support for personal changes regarding energy usage.

Adrian Parr, an Australian at the University of Cincinnati, deals with "population vulnerability". In the wake of disaster, gender roles are often redefined or even amplified, and other social values such as a sense of belonging and history suddenly take on a critical function for the sustainability of recovery efforts. In her paper, Parr suggests that although



it is important in the immediate aftermath of a disaster—such as the tsunami in South India—valuable time is not lost weighing up the pros and cons of different ways to provide relief, whereby assistance would simply turn into an exercise in cultural relativism. It is also important that all those involved in the relief effort don't take a one size fits all approach. Whilst there may not be one overriding definition of what we might commonly describe as 'population vulnerability' in the aftermath of a disaster, there is a shared sense of how such vulnerability works.

Martin Schönfeld, a German philosopher at the University of South Florida, contends that global warming has made the formerly so ineffable phenomenon "climate" tangible. In science, climate is perhaps the first genuine "whole" that is investigated as such, and climatology may well be the first great interdisciplinary venture that approaches its subject in holistic and explicitly anti-reductionist terms. In his paper, Schönfeld argues that climate is more than the sum of its parts in that it happens to result from parts working together as a whole. A holistic notion of climate needs to appeal to dynamics, in the context of potential, work, and energy. Schönfeld explores some rational consequences, arguing that the ontology of climate discloses it as a field. Climate change, while bad news all around, is nonetheless a rational and cultural cornucopia; it opens up new vistas of thought and promises to trigger a long overdue philosophical paradigm change.

Communities on coasts and fisheries: Tracking social-ecological resilience

Two sessions were devoted to coastal communities, fisheries, and social-ecological resilience.

"Resilient Roads to Management: Processes and Challenges" was organized by Alpina Begossi and Priscila Lopes, Fisheries and Food Institute (FIFO), Brazil, who had also organized the previous SHE congress in Rio de Janeiro, 2007. This session approached management in broad terms, including resilience as a process and as an outcome of management initiatives. Resilient processes leading to management can be shown through ecological tools, such as models and concepts. Resilient outcomes are strategies to sustainability, such as adaptive management, co-management, among others. Examples of resilient processes or outcomes, or both, can come from different ecosystems and regions of the world.

Alpina Begossi presented "Ecology and Ethno-ecology of Dusky Grouper in SE Brazil", emphasizing that the Garoupa (dusky grouper, *Epinephelus marginatus*) is an important catch for several artisanal small-scale fisheries along the Brazilian coast. Studies compiling local knowledge (ethnoecology) about fish species complement biological data, and have been fundamental for effective fisheries management. In this study, the objective was to obtain data about garoupa through fish catches and analysis of stomach contents and gonad maturation (macroscopic analyses), along with interviews from fishermen from six small-scales communities from the southern (Pântano do Sul, Florianópolis, Santa Catarina State) to the northern Brazilian coast (Porto Sauípe, Bahia State). Begossi concluded that precautionary approaches and



'data-less' management approaches are needed in the coast of Brazil. Research on this species and on the potential of aquaculture for its cultivation are urgent, due to the apparent vulnerability and decrease of garoupa along the coast of Brazil.

Priscila Lopes asked the question: "How Resilient Are Brazilian Fisheries Management Strategies?" Co-management initiatives may work as mechanisms to build socio-ecological resilience, meaning the capacity of the system to absorb shocks without being undermined in its social and ecological aspects. In Brazil, co-managed reserves have been widely created, especially through governmental initiatives, in the Amazon and on the coast. Lopes presented Brazilian case studies of two categories of reserves regarding fisheries co-management: extractive reserves and sustainable development reserves. Ecological resilience is defined through reserve area size and ecological integrity; social resilience through economic diversification and origin of the demand for establishing a reserve. Amazonian reserves have wider areas, apparently better ecological integrity, and people depend on a broader range of natural resources compared to those on the coast. However, dwellers of coastal reserves can rely on external sources of income, such as ecotourism and jobs outside the reserves, decreasing the pressure and dependency on natural resources. In both regions, there are examples of reserves created through a top-down initiative and from local demands. Lopes concluded that co-management regimes in these areas can add to socio-ecological resilience, by building trust between managers and local people and by considering local social and ecological peculiarities.

Bernhard Glaeser (DGH, LOICZ) presented LOICZ priority topic 1, "Social-Ecological Systems Analysis (SES) for Global Coasts". He summarized the discussions at previous LOICZ symposia in Beijing, Rio de Janeiro, Cape Town and the DGH Human Ecology Conference in Sommerhausen / Germany earlier this year. While case studies were very much the main focus earlier, synthesis and analysis will be emphasized in the future. Glaeser argued that the development of interdisciplinary methods for coastal and marine research may become a main focus in the further development of approaches to SES analysis. While a large number of methods and tools from the social as well as the natural sciences can be used in interdisciplinary coastal and marine research, methods to integrate and synthesize knowledge from different disciplines and from sources "beyond the disciplines" are still in their infancy. SES analysis, however, may have the future potential to upgrade ICM and to incorporate it into an interdisciplinary social-ecological (or human ecological) research framework.

The session "Communities on Coasts: Tracking Socio-Ecological Resilience" combined different presentations, such as resilience and community based resource governance in the Peruvian Amazon; Dauphin Island's (Alabama, USA) resilience after two years of hurricanes; urban fishery in Alaska, applying the conceptual framework of robustness rather than resilience; and global integration in local socio-natural systems in Belize. The latter case study by Darcie Reynold, University of Calgary (Canada), relied on in-situ research on a small Belizean *caye* (coral island) that is experiencing rapid social change as it incorporates tourism into its economic activities. Tourism has brought the world to this small isolated place and therefore



has added a real impact, to the previously imagined impact, of globalization on the lives of the people who have historically lived on this *caye*. Reynold concluded that there is a large gap between the desired outcomes that guide theories of Euro-centric biased development practices and the desired outcomes of the people of the cultures in developing places.

Concluding remarks

We heard high quality presentations, both as keynotes as in the paper sessions. It is interesting to note that coastal topics, including fisheries, gain importance in Human Ecology meetings. Several sessions were devoted to social-ecological resilience. It is unfortunate, as usual, that parallel sessions prevent participants from attending all that interests.

I identified some prevalent topics. Paradigm shifts were addressed in many presentations, desired or happening, in real life as in science. Climate change is a construct that calls for social change, but also for change in international relations. The importance of traditional knowledge in the light of climate change becomes evident. Culture and catastrophe are related: Behavior and tradition lead up to or can avoid a disaster. Cultural aspects include consumption patterns. Global change can be witnessed on the local level where adaptation is necessary to reduce vulnerability effects among those impoverished people who are the least empowered to mitigate the effects.

Outlook: The next International Conference on Human Ecology in Manchester, UK, June 29th to July 3rd, 2009, will be jointly convened by the Commonwealth Human Ecology Council (CHEC) and the Society for Human Ecology (SHE). The first call for papers was distributed in Bellingham. For further information please contact Ian Douglas <ian.douglas@manchester.ac.uk>