



**“One touch of nature makes the whole world kin.”**

**Shakespeare**

**October 2012**

**Next SAGE meeting:** Thursday, October 4th at the Fish & Game Hut. Special presentation by Lori Harasem for Climate Reality Canada.

Watch for SAGE’s proposal on the **Shell Fueling Change** website.

Learn about water research at the **Science Forum & Tour** at U of Lethbridge, October 10<sup>th</sup> & 11<sup>th</sup>. To register, contact the Oldman Watershed Council.

**Canadian Extractives as Development: Myth or Reality?** Bowman Arts Centre, September 22 to October 27.

## Red Alert for the Castle River Watershed

A group of artists raised attention on logging and resource extraction this summer through their project titled “Red Alert for the Castle River Watershed.”

The artists have used brightly coloured objects to contrast with the landscape of the Castle River. The spokesperson, artist Barbara Amos of Calgary, says: “The idea is to make a striking statement about the relationships between the human and natural worlds, and to draw attention to some of the issues that have put the Castle River Watershed on Red Alert.”

Of imminent concern is the Spray Lake Sawmills effort to remove 4700 truckloads of logs over five years. This clearcutting within the headwaters of the

Oldman River affects water quality, fish habitat and prime grizzly habitat. There have been ongoing concerns that Spray Lake Sawmills have not met the requirements for identifying and avoiding species denning in the area each winter as logging proceeds.

Barbara Amos gives an interesting perspective on the relationship of art and dialogue. In the artist’s statement for Red Alert, she says: “Perception is the essence of making images. We all see the same physical world, yet we all perceive it through a personal filter. At what point do we depart from a literal recording of what we see? If we are going to create another

view of something that has been done many times, how do we do it so that it adds a new idea to the conversation? If we are going to paint a landscape, do we understand the history behind previous landscape painting? Do we know the current debates? Can we add something that takes the conversation further and adds something new to the discourse?”

Raising awareness of environmental issues through art diversifies the audience for this important dialogue. Images of Red Alert can be viewed on the artists’ facebook site ([www.facebook.com/CastleHeadwaters](http://www.facebook.com/CastleHeadwaters)).

## Park Place - Best Mall in Canada

Park Place announced in May that they were the recipients of three outstanding awards, *BOMA BEST- Level 4* for environmental sustainability, the *Certificate of Excellence* for building management, and *The Outstanding Building of the Year* award for a shopping centre at a regional level.

Park Place Shopping Centre was recently the proud recipient of the national TOBY award (*The Outstanding Building of the Year*) for shopping centres through BOMA Canada. The TOBY award is the

most prestigious and comprehensive program of its kind in the commercial real estate industry, recognizing quality in commercial real estate buildings and rewarding excellence in building management.

All facets of a building's operations were evaluated and judged based on building standards, community impact, energy conservation, environmental (regulatory and sustainability), and other factors. It is a model of what a large building can achieve in a competitive industry.

## A Glaciation of Efforts to Reduce GHG Emissions

Environment Minister Peter Kent slackened the allowable emissions from coal-fired electricity generation in the country.

In an earlier draft of the legislation he had targeted 375 tonnes GHG emissions per GWh of electricity. After successful lobbying from the electricity industry, it will now be 420 tonnes (12% more), and it will not have an effect on national emissions until 2029 when 23 plants will have reached the 50-year limit for operation.

Kent was quoted as saying: “This equals a cumulative reduction in emissions of about 214 megatonnes in the first 21 years” and will put Canada on track to meet emission reduction targets as agreed to in Copenhagen (17% below 2005 economy-wide emissions by 2020).

In reality, however, the new targets will reduce national emissions by less than 2% and will not occur for a decade after 2020. On the positive side, at least the government isn’t openly denying climate change anymore.

## Lower Athabasca Regional Plan Approved

The Lower Athabasca Regional Plan (LARP) is the first of seven regional plans to be approved under Alberta's Land-Use Framework. The vision is to find an economic, social and environmental balance to managing land use in the province, with consideration given to cumulative effects and future generations.

The regional plans are expected to outline monitoring, evaluation and reporting requirements, to set early warning 'triggers' to determine the need for action, and to identify what actions may be taken to mitigate impacts on the ecosystem.

The LARP region spans from the Northwest Territories to the County of Vermilion in the south, and from the Saskatchewan border to Wood Buffalo National Park in the west. The area includes three main water basins, including the Athabasca, the Beaver, and the Peace/Slave rivers.

The plan was designed to provide "certainty for development of the oil-sands" as well as diversifying the economy through forestry, agriculture, mining and tourism.

Under LARP, 22% of the region has been designated conservation/recreational land. As a key outcome, the

plan establishes limits for air and water quality, though the plan largely focuses on areas upstream of surface mines or ground water used for in situ injection.

A second outcome is to increase opportunity for recreation and developing tourism. As such, lake management and setting water quality standards for recreational lakes are still required, as are wetland outcomes that focus on healthy ecosystems in the region.

Whether or not these regional plans will be able to protect the health of the ecosystem, given the intense economic and social pressures in this region, will be seriously tested with LARP.

## A Renewable Energy Vision for 2050

A recent report published by *Energy Strategy Reviews* (linked below) presents an approach to a fully sustainable global energy system by 2050 - without relying on new breakthroughs in technology.

The report admits: "The energy scenario we have presented combines the most ambitious efficiency drive on the demand side with strong growth of renewable source options on the supply side to reach a fully sustainable global energy

system by 2050. Both are important: the transition cannot be achieved on the supply side alone." The admission that demand must be managed (through efficiency gains and social change) is important, because meeting supply requirements for a growing energy demand with a fledgling renewable energy is not likely realizable.

But, with a mix of renewable energy technologies, reduced demand, and sus-

tained investment in the order of 2% of global GDP, the authors show that energy-business-as-usual can be sustained.

The report falls short on explaining how fossil fuel use will be scaled back to 5% of energy supply, and it does not consider other challenges like maintaining the supply of required minerals used to produce renewable technologies (which are also finite). This analysis is written to please the technophilic optimist in us.

### Interesting Links:

High microcystin concentrations occur only at low nitrogen-to-phosphorus ratios in nutrient-rich Canadian lakes <http://library.constantcontact.com/>

Transition to a Fully Sustainable Global Energy System [Energy Strategy Reviews](#)

Lower Athabasca Regional Plan (LARP) <http://environment.alberta.ca/03422.html>

### Southern Alberta Group for the Environment (SAGE)

A Leading Voice for a Healthy and Environmentally Sustainable Community.

Visit us at: <http://sage-environment.org/>

If you are interesting in getting involved, contact us at:

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## The Web of Life (1996)

Fritjof Capra's *Web of Life* is considered by many to be a classic in environmental philosophy of science - and for good reason. This book lays a groundwork for understanding nature as a system, rather than isolated parts. Capra begins with a larger vision of deep ecology and interweaves emerging theories from the science of biology and quantum physics to support the thesis.

The book begins with a definition of the world as it is, and the world as it should be: "Shallow ecology is anthropocentric, or human-centered. It views humans as above or outside of nature, as the source of all value, and ascribes only instrumental, or "use," value to nature. Deep ecology does not separate humans - or anything else - from the natural environment. It sees the world not as a collection of isolated objects, but as a network of phenomena that are fundamentally interconnected and interdependent. Deep ecology recognizes the intrinsic value of all living beings and views humans as just one particular strand in the web of life" (p.7). The hope is that if we could develop a deep ecological awareness of being part of the web of life, then we would be inclined to care for all of living nature. How we are to achieve this deep ecological awareness is unclear, though Capra makes every effort to show that we are fundamentally interconnected and interdependent within the ecosystem.

Much of the book describes what Aristotle called *entelechy* ("self-completion"). It is a systems view in which "the essential properties of an organism, or living system, are properties of the whole, which none of the parts have. They arise from the interactions and relationships among the parts" (p.29). In other words, the properties of the parts can be understood only within the context of the system and, ultimately, "as quantum physics shows so dramatically - there are no parts at all. What we call a part is

merely a pattern in an inseparable web of relationships. Therefore the shift from the parts to the whole can also be seen as a shift from objects to relationships" (p.37). This also describes the shift from shallow to deep ecology.

Capra relates current research on self-organizing tendencies in nature: from strongly interacting particles ('hadrons') that form networks of interactions, to self-organizing and self-referring systems within the body including the nervous system and immune system. Not only are these systems naturally self-organizing, they can be self-amplifying given a catalyst. These self-amplifying systems move farther away from equilibrium until a new form of order emerges ('bifurcation point'). "Prigogine's theory shows how a particular type of chemical processes, the catalytic loops that are essential to living organisms, lead to instabilities through repeated self-amplifying feedback, and how new structures of ever-increasing complexity emerge at successive bifurcation points" (p.184). Capra describes these naturally repeated self-amplifying feedbacks as a mechanism of species evolution.

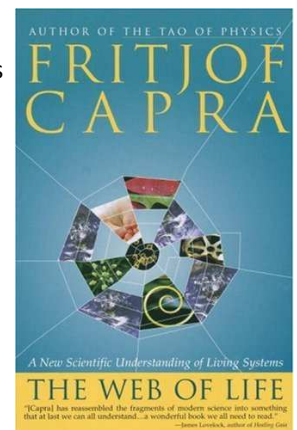
Moving from natural self-organization of systems, to complex systems that evolve through a series of states of equilibrium, *The Web of Life* addresses cognition. And this is where things get a little hairy. Capra describes cognition not as "a representation of an independently existing world, but rather a continual bringing forth of a world through the process of living. The interactions of a living system with its environment are cognitive interactions, and the process of living itself is a process of cognition. In the words of Maturana and Varela, "To live is to know" (267). As such, self-organizing matter create systems, systems that are in a state of disequilibrium are alive, and systems that are living have cognition.

Cognition is being part of a living system, which does not necessarily mean self-awareness or consciousness, what Capra calls 'knowing that we know.'" It is this aspect that differentiates humans from other species in the ecological system, and it is this aspect that makes deep ecological thinking so difficult.

It seems that deep ecology demands cognition (to be part of a living system), but is subverted by human-centered consciousness which leads to shallow ecological thinking. And then Capra seems to try to blur cognition with consciousness: "There is a material world, but it does not have any predetermined features. The authors of the Santiago theory do not assert that "nothing exists"; they assert that "no things exist" independent of the process of cognition" (p.271). In the words of Heisenberg: "What we observe is not nature itself, but nature exposed to our method of questioning." So, how is it that we can be both a self-conscious species observing (outside) nature, and one 'strand in the web of life'?

Capra tries to tie these ideas together in a conclusion: "This, then, is the crux of the human condition. We are autonomous individuals, shaped by our own history of structural changes. We are self-aware, aware of our individual identity - and yet when we look for an independent self within our world of experience we cannot find any such identity. ... To overcome our Cartesian anxiety, we need to think systematically, shifting our conceptual focus from objects to relationships" (p.295).

(Thanks Deb for recommending this book to me).





**A leading voice for a healthy and  
environmentally sustainable community**

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Dear Minister McQueen:

The Southern Alberta Group for the Environment (SAGE) is supportive of the private member's bill (Bill 202) as advanced by Dr. Neil Brown, MLA, Calgary Mackay-Nose Hill. The bill advances more transparency around the privatization of public prairie rangeland in southern Alberta by making publically available all wildlife habitat reporting, and by requiring a 90 day waiting period to allow public comment about the sale of such lands.

It is in the long-term interest of Albertans to retain and manage public lands for the protection and maintenance of biodiversity and species at risk and the other ecological goods and services that native ecosystems provide, such as soil conservation and watershed protection. This proposed legislation, unlike current policy, offers Albertans an opportunity to be involved in promoting values that support the preservation of natural ecosystems. We would prefer comprehensive regulation, policy and procedures regarding sale of public land that reflects the recommendations contained in the attached document prepared in 2011 by several conservation organizations.

Premier Redford has promised Albertans that there would be greater transparency in the way the government conducts its business. Dr. Brown's bill embodies this promise.

Thank you for your attention to this matter.

Sincerely,

A handwritten signature in black ink, appearing to read "B. Barber", written in a cursive style.

Braum Barber  
Executive Director, SAGE

cc: Dr. Neil Brown, MLA, Calgary MacKay-Nose Hill