

BC campuses put theory into action

by Jeff Dewsbury

H.I. Hayakawa's 'ladder of abstraction' — the concept that every element of life falls on a 'rung' somewhere between basic physical matter at the bottom and grand ideas and theories at the top — is taught in post secondary institutions throughout the province. Perhaps it's appropriate then, that universities and colleges are living examples of the theory in action when it comes to sustainability.

One lecture hall, for instance, could be lit by an energy-saving retrofit lighting system that shines down on 100-percent post consumer recycled paper. Students take notes on the paper as a professor lectures on ecological awareness and theoretical intent in architecture. The raw materials necessary to manufacture the lights and the heady, philosophical justification behind their creation share the same space.

BC's post secondary communities host a wide spectrum of players — students, faculty and staff in many disciplines, architects, planners, and maintenance staff — and offer some of the best examples of the holistic nature of sustainability.

"One of the most important strategies in advancing sustainability is through a multi-stakeholder approach," says Sarah Webb, Sustainability Coordinator at the University of Victoria (Uvic).

Webb points out that Uvic's faculty of engineering offered the pilot course "Sustainable Engineering Systems Design" last year to provide a platform for students to go beyond theory to work on projects that address specific environmental issues in other areas of the school.

"There's a huge spectrum of players and disciplines on campuses," says Maggie Baynham, Provincial Sustainable Campuses Coordinator for the Sierra Youth Coalition. "And, historically, universities and colleges have been the first to run with sustainability initiatives." The Sierra Youth Coalition was a forerunner in campus sustainability, having launched its first initiative nearly a

University of Victoria on the LEEDing edge



Uvic's facilities management grounds employees atop the new Social Sciences and Mathematics Building, which has eight green roofs and is the third LEED-registered building on campus.



Uvic's travel choices program, which boasts projects like these new bike shelters, is making it easier for students, faculty, and staff to get out of their vehicles.



A recent awareness campaign encouraged people to carry reusable water bottles and coffee mugs. Mugs were sold for \$5; water bottles for \$10.

decade ago when the issue was receiving a fraction of the public support that it enjoys now.

According to the group, its definition of campus sustainability is a holistic one that includes a commitment to "ecological integrity, economic prosperity, and social equity". A big component of this mission involves building a multi-stakeholder process that mobilizes every segment of the campus community — a model that many institutions in this province have bought into.

And even when initiatives are on a grand scale, the savings gleaned over time go back into a wide range of projects, big and small. For example, through EcoTrek, UBC's massive water and energy retrofit program — upgrades to a steam plant and distribution system, ventilation systems in 100 buildings, and high-tech ventilation controls and meters — the university has reduced its energy use by 30 percent, resulting in savings of \$2.6 million per year. Those savings are then reinvested in a host of other sustainable projects on campus.

Another example of the trickle-down effect is Uvic's campus-wide move to 100-percent post consumer recycled paper in 2007. There was a slight price increase to implement the change, but it was so nominal it wasn't even transferred to the end users, says Webb. And the massive buying power of such a large university means the change is felt beyond its borders. "In the end, our decision makes the product more accessible to the greater community," she notes.

Like its neighbours UVic and UBC, SFU has also been steadily building an overall climate of sustainability on its campuses in both academics and a wide range of tangible ways. *Walking the Talk* notes that the student body has long held the reputation as a "radical campus," and has been committed to energy conservation and management ahead of the curve for more than two decades.

One project that stands out is SFU's UniverCity, a preplanned, high-density community beside the school that melds the sustainable academic environment with the pedestrian-oriented lifestyle of its residents. UniverCity — whose features include landscaping with native plants, a policy prohibiting chain stores in the town centre, and a sophisticated stormwater pollution management system — is now used as model for other institutions that share SFU's passion for sustainable housing for faculty and students.

"Students are the drivers of sustainability," says Liz Ferris, one of UBC's sustainability coordinators. With eight employees, the school has the province's largest sustainability office, yet they are a small part of a campus community of 60,000 people. "We're just here asking, "how can we support you?" as new initiatives come up every day."

And like her colleagues at other institutions, Ferris says UBC has managed to foster a "culture of sustainability" that is both student driven and backed up by the school's governance—two key factions that have to work together if things are going to get done. In 2006, the school published the country's first campus-wide sustainability strategy after consulting with all twenty departments, all faculties and a host of campus organizations and individuals.

While some schools have had challenges bridging the gap between their governance structures and those implementing programs 'on the ground,' a number of institutions in this province have managed to sidestep many of those issues. This may be, in part, because post secondary institutions are "hubs of innovation" says Webb, "It's in our best interest to look and find creative solutions to some of the most challenging problems we have as a global society."

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TAKING STOCK:

The current state of sustainability in British Columbia universities and colleges

Taking Stock is an ongoing report (frequently updated at www.walkthetalk.bc.ca) that examines 25 institutions—universities, university colleges, colleges, and institutes—across the province.

Rather than rate the schools, the document examines the broad context of sustainability within the physical and academic environments of higher education.

The term "intellectual resources" is used to describe the perpetual legacy of students who integrate the concepts of sustainability within their chosen disciplines. And the report places high priority on this renewable resource while still examining the 'nuts-and-bolts' of sustainable products and systems.

Taking Stock notes that BC's universities and colleges are not only expected to be good examples to a greater culture struggling to change the way it lives, they are also "being called upon to inspire a culture of sustainability."

The report's definition of a sustainable institution emphasizes its main theme: that sustainability education is "integrated not inserted." That sustainability is a holistic, overriding concept that flows through every area of higher learning, from classroom instruction and curriculum to building design and resource consumption.

"Sustainability implies that the critical activities of a higher education institution are (at a minimum) ecologically sound, socially just, and economically viable, and that they will continue to be so for future generations. A truly sustainable college or university would emphasize these concepts in its curriculum and research, preparing students to contribute as working citizens to an environmentally sound and socially just society."

The report also refers to "pockets" of deep commitment within most schools, but sees the need to foster a culture of sustainability that permeates all areas of campus and academic life. One example given is BCIT, which has a School of Construction and the Environment. While that particular stream obviously draws students and staff who are committed to sustainability, it was noted that their zeal and awareness does not transcend the bounds of their department.

The complexities of sustainability on campuses are apparent as the report outlines myriad initiatives schools have embarked on in a bid to be more environmentally responsible. These include everything from large retrofit lighting programs and the recommissioning of building management systems, to cycling infrastructure improvements, and unique water and waste management programs for disciplines like welding (BCIT) and painting (Emily Carr). The sustainability office at UBC has even posted a real-time calculator (www.sustain.ubc.ca) that measures both resource use and savings.

While the report details many positive developments, it also delves into the many barriers to campus sustainability. The most common barriers cited include bureaucracy and accounting practices, inertia of the status quo (the term "institutional lethargy" was used by one survey respondent), unsustainable practices and societal norms beyond the scope of the institution, lack of funding, and lack of awareness and communication.

Taking Stock lists ten recommendations on how to affect changes, including setting up sustainability offices and paid sustainability coordinator positions. This move, the writers believe, signifies a full-time commitment to sustainable practices, noting that coordinators also promote holistic, campus-wide consistency in sustainable efforts (in contrast to segmented or isolated initiatives).

The report also recommends the revision of accounting procedures to "support full-cost accounting." UVIC is noted as one school that is experimenting with the procedure, quantifying long-term costs and benefits of adopting more sustainable choices within capital expenses.

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