

# UBC REPORIS

March 2013

No cash, no crime?

People need trees
Cities need forests

Sustainable by design





# No cash, no crime?

Andrew Riley

# In the news

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# Highlights of UBC media coverage in February 2013

Heather Amos

#### **U.S.** belief in climate change shifts with weather

Public opinion on climate change varies with the temperature, suggests a UBC study. In an analysis of media coverage, researchers found that a cold snap can lead to skepticism over climate change whereas a hot spell can increase concern over climate change, reported the **BBC**, **United Press International, CBC, Vancouver Sun** and others

"Our findings help to explain some of the significant fluctuations and inconsistencies in U.S. public opinion on climate change," researcher Simon Donner said. "The study demonstrates just how much local weather can influence people's opinions on global warming."

### **Body language can predict** outcomes for recovering alcoholics

In a study of alcoholics and relapse rates, researchers studied the body language of recovering alcoholics and found that those who expressed shame, were more likely to start drinking again. The study is the first to link physical signs of shame to predictions of relapse, reported **Time**, **CTV National News, Global, Huffington Post, Toronto Star** and others.

UBC psychology professor **Jessica Tracy** said the amount of shame displayed is also directly tied to the number of drinks an alcoholic will have on that first binge after giving up

"The more shame they showed, the more likelihood they were to relapse and relapse with a large number of drinks instead of smaller amounts," said **Daniel** Randles, a PhD student who conducted the study with Tracy.

#### Bilingual babies know their grammar by seven months

Babies born into bilingual households can learn to distinguish the grammatical structures of two different languages at a young age, finds a new study by UBC Prof. Janet Werker and Prof. Judit Gervain of the Université Paris Descartes, reported the Daily Telegraph, The Economist, Globe and Mail, Yahoo News, Times of India and several others.

Babies use signs like pitch and duration of sounds to keep two languages separate by just 7 months. The findings help debunk the misconception that bilingual infants face disadvantages in language development.

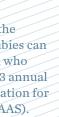
"There are a lot of cues just at the surface level in language that babies can use to get a leg up," said Werker, who reported her findings at the 2013 annual meeting of the American Association for the Advancement of Science (AAAS).

## **Davis Cup at UBC**

Canada made tennis history at UBC's Doug Mitchell Thunderbird Sports Centre when the team beat Spain in the first round of the Davis Cup. The Davis Cup will return to UBC in April when Canada takes on Italy in the quarter-finals.

The Globe and Mail, Toronto Star, Canadian Press, Vancouver Sun and many others reported on the event and the announcement that the tournament would be returning.

"We've really focused on creating an environment that will be rowdy and raucous to show our support for the team," said Kavie Toor, associate director of facilities and business development for UBC Athletics and Recreation, to CBC's Early Edition before the tournament against Spain began in early February.





The Canadian government could save an amount equal to 50 per cent of the country's 2012 fiscal deficit, if cash were cut.

With people now able to buy things with a tweet, and Apple poised to push their mobile devices as electronic wallets, cash is set to take a serious demotion from its position as king.

A recent study from the University of British Columbia's Sauder School of Business now shows that not only is cash becoming increasingly redundant, but governments could save big by axing currency all together.

Even after accounting for revenue gained by printing money (a value referred to as seigniorage) the study by Sauder finance professor Maurice Levi suggests the Canadian government could save an amount equal to 50 per cent of the country's 2011 fiscal deficit, if cash were cut. He says similar savings would be found in other western countries.

creates for governments through tax evasion and its role in illicit markets, such as the drug trade, combined with the increasing number of electronic alternatives, it makes sense to stop the printing presses at the Bank of Canada," says Levi, whose study, Fiscal consequences of scrapping cash, is published in the most recent edition of the Journal of Payment Strategy

"When you consider the cost cash

Eliminating cash could mean huge savings for governments, says Sauder School of Business Prof. Maurice Levi

and Systems.

In a world without cash, a trail of all payments and receipts could be followed to track down criminals and used as evidence in prosecutions, acting as a major deterrent for would-be criminals, says the researcher.

"Cash is the only payment method that preserves privacy and does not leave

any trail, which is why it's the currency of choice for criminals and tax evaders."

Levi's study endeavors to estimate the full cost of the illicit activity associated with cash in Canada, including tax fraud and money laundering. He also accounts for costs of law enforcement, incarceration and adverse health resulting from the drug trade facilitated by anonymous cash transactions.

When the figures are added up, based on estimates by Statistics Canada and other studies sponsored by federal and provincial ministries, Levi suggests the government is out \$17.9-billion per year.

This far outstrips revenue the federal government is accruing by supplying money to the Canadian market. By printing money and minting coins, the government in essence realizes a

profit equivalent to the face value of the money minus the cost of physically making it. In Canada, Levi estimates this amount to be \$4.4-billion per year.

Although Levi recognizes that the removal of cash from the monetary system is not going to completely stop tax avoidance and criminal activity supported by cash transactions, he insists that it will make a serious dent.

"Some tax evaders would still continue to try to fly below the radar, and undoubtedly the drug trade and other underworld markets would still find a way to subsist on some level," says Levi. "However, there is little doubt these activities would inevitably shrink substantially in a world without cash."

**Public Affairs** 

# A brave new beginning

Since 1955 UBC Reports has reflected the stories of our academic community from the curious, to the considerable—in print

Lucie McNeill

#### There are always mixed feelings at the onset of momentous changes. And this one is no exception.

With this last regular print edition of UBC Reports, we morph a chronicle that has been a UBC mainstay since 1955. In April, *UBC Reports* will only be distributed via email as a digital edition. And although May will see us produce a print graduation special focusing on the Class of 2013, from June onwards our feature stories will be posted on the soon-to-be-launched UBC News website.

It's a bold step to take—and a bit of a gamble.

For the past 58 years, *UBC Reports* has been an attentive witness to the university's stunning growth, news and debates, its visionary thinkers, students and leaders, as well as the odd character or two. Our retrospective look at *UBC* 

*Report's* shape shifts will undoubtedly elicit a tinge of nostalgia among longtime readers.

Through its many editions and thousands of stories, UBC Reports has reflected the university's evolution and growing ambitions. At first written for a local campus readership, *UBC Reports* is now aimed at a broader audience as a monthly digest of features on university life, teaching, research and learning. Former director Scott Macrae's approach, launched in 2001, has been good for UBC's reputation. Today roughly 60 per cent of UBC Reports stories inspire further mainstream media coverage.

Many of us still get pleasure reading something tangible that can be scribbled on, highlighted, clipped and saved. Some will feel, and perhaps even resent, the loss of what has been

an award-winning magazine, edited by Randy Schmidt, designed by Arlene Cotter and her team, featuring Martin Dee's stunning photography, and the insightful stories told by Public Affairs writers and campus colleagues. Not everyone enjoys firing up a computer to get caught up on news.

But there's no fighting the digital tsunami. Leading universities in Canada and beyond have been switching to online newsrooms in droves-and not for the reasons you would expect. Publication and distribution costs are not the big driver.

An important argument for UBC is sustainability. Intent on living our Place and Promise strategic commitments, it's hard to justify putting out print publications when so many copies languish in distribution boxes.

Yet the decisive argument was the

imperative to reach greater audiences, at times through mainstream media. A digital news site allows us to bring attention to momentous research and UBC's breadth of expertise, to more people, in more creative and numerous ways, and in a much more timely

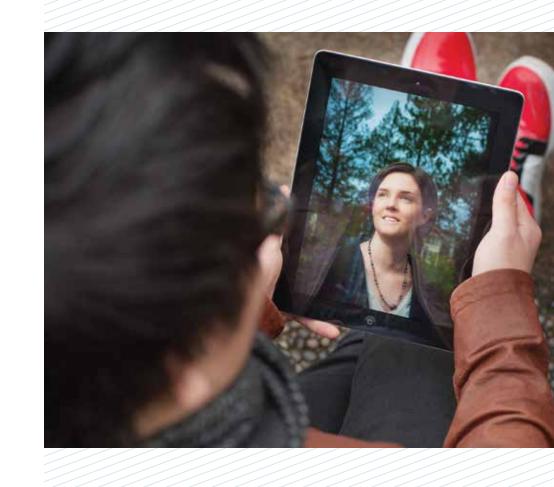
Think about it. No more artificial monthly print cycle—the stories can be told when they're fresh. No limit to the number of stories or their length-we can feature newsworthy content from diverse university sources. And we won't be bound by text and photos we will meld video, images, motion graphics, audio, text and social media elements in a seamless and engaging news website.

We believe we can reach a greater number of you, farther afield, and in ways that you will readily adopt.

We think you will appreciate being able to pick and choose what you want from our offerings. And yes, you will also be able to subscribe to the new digital UBC Reports—the emailed link to the collected features of the month.

This is not the end. This last regular print edition heralds a new beginning and celebrates in these pages a proud tradition.

Here's to the memories—and to the discoveries ahead.



1980s 1960s **Future** 1955 **1970s** 19905 **2000S** 20105



February 1955 **Alumni Kick Off 1955** 

**Development Fund** 

**Campaign For University** 

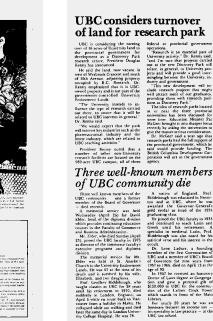
Although no target amount has been specified by Development Fund directors, they are hoping to raise \$75,000.

SUZUKI DEAN OKULITCH EMPHASIZES Teaching, Research Go Together

December 12, 1968, page 4

## Suzuki captures top **NRC** award

UBC geneticist Dr. David Suzuki, 32, has been named the 1969 recipient of the E.W.R. Steacie Memorial Fellowship, one of Canada's most prestigious scientific





May 1, 1978, page 2

# **New computer bought** by UBC

UBC has purchased a new computer that will increase the processing capacity of its computing centre by more than 60 per cent. Jim Kennedy, director of the computing centre, said the new Amdahl V/6 - II, with four megabytes and 12 channels, was purchased for just over \$2.7 million.



February 15, 1984

## A first for Canada

Robbie, the first child in Canada conceived through in vitro fertilization outside of his mother's body, weighed two pounds two ounces when he was born two months premature on Christmas Day. The UBC in vitro fertilization and embryo transfer team is led by Dr. Victor Cornel, head of the obstetrics and gynecology department.

**UBC REPORTS** UBC to streamline operations

April 8, 1993

## Summit puts campus on world stage

It's the casual apparel of UBC students and world leaders: the UBC sweatshirt. U.S. President Bill Clinton jogged Stanley Park's Seawall April 4 sporting the white sweatshirt, a gift from the university during the Vancouver Summit.



May 6, 2004

# **Nobel Laureates Receive Honorary Degrees** from UBC

Canada's national newspaper called it "a one-of-a-kind traveling road show, and we may never see its likes again." The Globe and Mail reporter was referring to the historic visit to UBC's campus of three Nobel Peace Laureates.



February, 3 2010

# **Insane Pain:**

## Thrill of the skeleton

When Jeff Pain describes himself as a Type A personality, he's not kidding. The 39-year-old Pain, who will compete in his third Winter Olympics at Whistler in February, recalls the first skeleton ride he took in November 1994.

May/June, 2013

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- Faculty expert profiles
- Daily UBC in the News summary

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# Dentistry students travel to parents' homeland

Terry Wintonyk



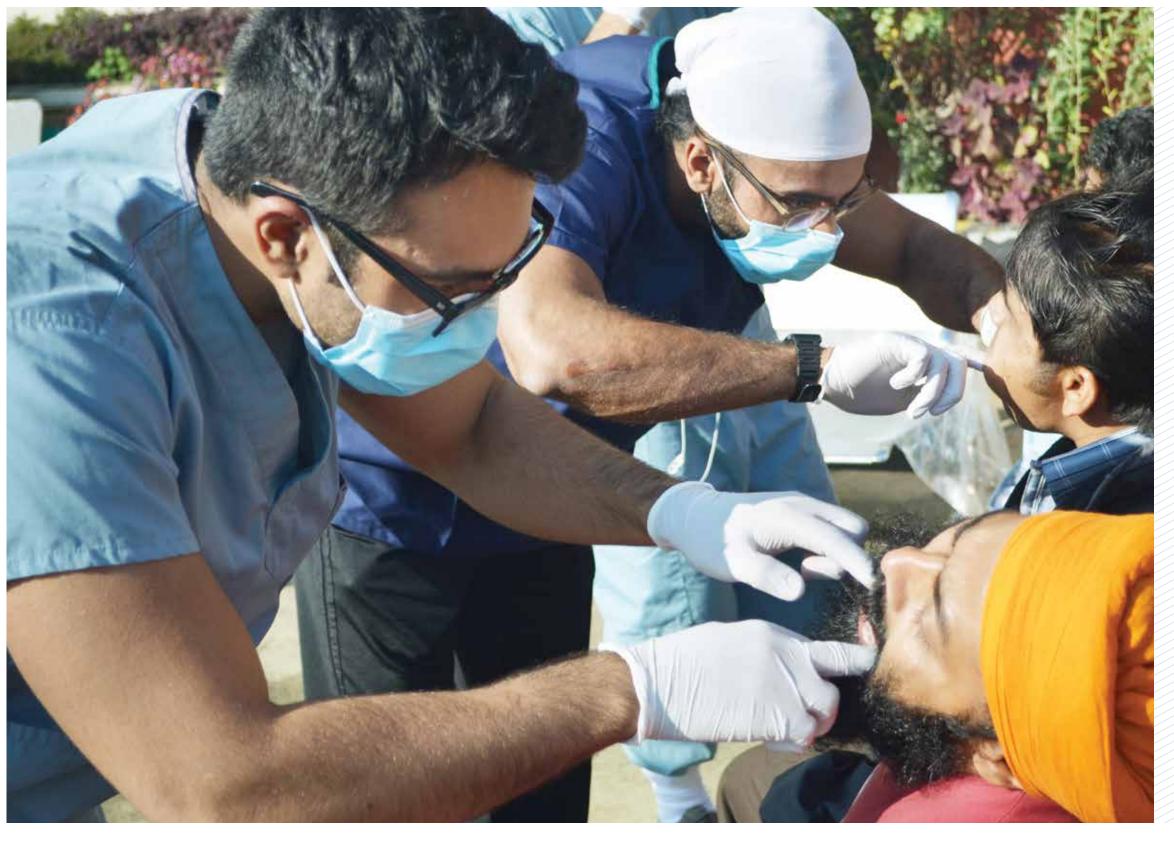


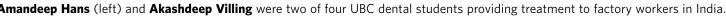
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A volunteer dentistry mission to India has taught four UBC students to see the whole patient—including his or her social and economic context, cultural beliefs and values—not just the ailing tooth.

In December, fourth-year dentistry students Akashdeep Villing, Amandeep Hans, Vikrant Sharma and Tanmeet Singh arrived in India to set up dental camps at local factories and elementary schools (see sidebar). They had intended to provide straightforward dental check-ups and extractions, but learned that to get to the tooth, you've got to get the patient to open up first.

The four set off on their adventure on their own accord after meeting a visitor to UBC Dentistry from India, who spoke of the unmet dental needs prevalent in his country.

The workers they were serving make on average \$20 a month and dental health is a low priority. "Many patients refused to have infected root tips and even loose teeth extracted," says Villing.

"We could not use long-term consequences to convince patients to treat their infections, instead they thought strictly in the short term," says Villing. "If you take it out, will it hurt today?' was their most pressing concern."

With the help of the Baba Jaswant Singh Dental College in Ludhiana, Punjab, the Punjabi speaking UBC students set up a clinic at a factory on the outskirts of the city and completed more than 70 check-ups, offering advice and counselling about oral health and future dental problems.

# "Returning to the country that raised our parents and shaped much of our lives was a great experience. The dentistry we were able to perform was also a blessing."

"Workers were astounded that we travelled such a long distance at our own expense to offer free dentistry to them," Hans says. "That gave us some social credibility to offer advice as well."

Before the trip, Hans thought offering treatment for pain relief would be a piece of cake—that people would jump at the opportunity to trade long-term pain for short-term discomfort.

"Instead, we were bombarded with

requests for teeth-whitening," says Hans.
"Most people refused treatment such
as an extraction but were open to basic
advice on proper brushing because it
promised whiter teeth."

Yet, the team was not dissuaded. To be effective Hans took a step back in himself to gauge the knowledge of his patients; he could not assume they had a basic understanding about oral health or the seriousness of dental decay, and simply comply with treatment. He worked with patients on their terms, understanding their references.

"We realized that we couldn't change their whole belief system overnight," Villing adds. "But we did feel that we had a positive impact."

That meant knowing a seed was planted about the awareness and importance of oral health.

"Returning to the country that raised our parents and shaped much of our lives was a great experience," he says.
"The dentistry we were able to perform

was also a blessing."

After his experience in India, Hans says he's more prepared to work with a broader population of patients, especially in other countries as a volunteer dentist. "A practitioner

has to consider the social dynamics at play and in our case in India, having white teeth was deemed more valuable than basic treatment. We need to understand those we serve, and learn from them."

UBC Dentistry team

at elementary school

In addition to the factory clinics, the

has tentative plans to return to the

school and set up a full restoration camp

Dentistry students "cut their teeth" in volunteer dentistry throughout their four years at UBC in the faculty's Community Volunteer Clinic Program as well as with outside groups such as the Dental Mission Project, run by DMD 1972 alumnus Dr. Doug Nielsen. Community service learning opportunities build confidence and help foster a lifetime of global citizenship.

6

# True north

UBC researchers partner on B.C. Vote Compass

Basil Waugh



Vote Compass helps citizens determine where political parties stand on key issues says UBC Political Science Prof. **Richard Johnston**.

University of British Columbia political scientists have teamed up with CBC and the popular Vote Compass project to help voters in the upcoming B.C. election assess both party platforms and their own political stance.

Vote Compass, an online electoral literacy tool that helps voters identify the political party that most aligns with their own personal views, has attracted some 3-million participants in the last three federal and provincial campaigns, since making its Canadian debut in 2011. The upcoming campaign will mark its first use in a B.C. provincial election.

Prof. Richard Johnston, an international expert on elections, polls and politics, is one of five UBC political scientists serving as consultants on the project.

"Voters are bombarded by so much information during elections, that it can be extremely challenging to make informed decisions," says Johnston. "A key benefit of Vote Compass is that it really helps to nail down where parties stand on the key issues. By helping people to make better decisions, and promoting healthy debate and civic engagement, tools like this make our democracy stronger."

Johnston has served as advisor since the project began at the University of Toronto. Other members of the UBC team include Prof. Fred Cutler, Prof. Andrew Owen and graduate students Charles Breton and Faruk Pinar. They will collaborate with colleagues from across B.C. and Canada.

Before the site's launch, the B.C. Vote Compass team will ask B.C.'s Liberals, NDP, Conservatives and Green Party 30 questions to reveal their stance on the most important campaign topics, from the economy to social issues. Researchers will evaluate party platforms and public statements to ensure the accuracy of responses, or to answer the questions for parties who refuse to participate.

When B.C. Vote Compass goes live, site visitors will be asked to answer the same 30 questions, and to rank the topics by relative importance, while providing additional demographic and geographic

positions on key issues and calculate which party aligns most with site visitors' attitudes and priorities.

The system will

reveal the parties'

details, including age, language and ethnicity. Once submitted, the system will reveal the parties' positions on key issues and calculate which party aligns most with site visitors' attitudes and priorities. Vote Compass will also show how voters in 85 electoral ridings are responding, likely revealing key swing ridings.

The team is putting the finishing touches on the 30 questions and preparing to present them to the four main B.C. parties, Johnston says. One of their jobs has been to ensure the questions reflect not only "meat and potato" election topics—the economy, health care, taxes, education and transit—but also hot button issues, such as the contentious Enbridge pipeline, Aboriginal land claims and the B.C. carbon tax. For the first time, Twitter will be used to help gather citizens' priorities.

Beyond the benefits of voter literacy, Vote Compass gives researchers a significant amount of opinion data for future studies. While cautioning that it is not the same as a poll—participants are self-selected, and not randomized—Johnston says it will help researchers to study how opinions shift during the election, by region and over time.

"The sheer amount of raw data power that Vote Compass brings in is very exciting," says Johnston. "Just compare the average poll, which has hundreds or thousands of participants, to the 2012 Quebec Vote Compass, which had nearly 1-million participants. This data will help researchers to gain better understanding of the election, the underlying political dynamics in B.C., and likely even open up new research possibilities."

Johnston places Vote Compass among several new advances in the field of political science that seek to improve our ability to understand and predict electoral trends, from poll aggregators, which combine individual polls, to predictions markets, which allow people to buy and sell "shares" in political parties.

Learn more at http://votecompass.ca

# People need trees. Cities need forests

Sara Barron wins the world's largest forestry scholarship

Heather Amos



For her doctoral research, Sara Barron will study how to balance natural forest environments with higher density housing in suburbs

From promoting recovery in hospitals to reducing stress, there is growing evidence that nature plays an important role in our wellbeing. But according to Sara Barron, suburban communities are going to need more than a few tree-lined streets to be effective.

"People are scared of density," says Barron, who will begin her PhD research in the Faculty of Forestry in May. "But if you integrate trees and natural spaces within dense areas, it makes neighbourhoods more livable."

Barron is the winner of the Future Forests Fellowship, the world's largest scholarship for forestry research. She will receive up to \$240,000—\$60,000 annually for up to four years—to study how urban planners can design or retrofit suburbs to balance natural

forest environments with the higher density housing that is required to reduce carbon footprints.

The Future Forests Fellowship was created by a private foundation to draw attention to how forestry research impacts global issues. According to the United Nations, more than half of the world's population currently lives in cities and that number is only expected to grow. Barron's doctoral research idea beat out applicants from a number of countries including Poland, India, Iran, Brazil, the United States and the U.K.

"If people live in denser neighbourhoods, it has a whole host of benefits. For example, it leaves more land for natural environments which can mitigate the effects of climate change," says Barron, who has decided "People are scared of density. But if you integrate trees and natural spaces within dense areas, it makes neighbourhoods more livable."

to focus her research on suburbs because of their large footprint. Barron will be working with Professor Stephen Sheppard in the Collaborative for Advanced Landscape Planning (CALP). Knowing that climate and environments will change in the near future, CALP works with communities to help them plan for adaptation and reduce their contributions to global warming.

"Many suburban residents have high carbon footprints associated with low density," says Sheppard. "Smart design and management can leverage a healthy urban forest to make higher density acceptable, as well as provide important ecosystem services, passive summer cooling, and enhanced property values."

As part of her doctoral work, Barron intends to generate suburban forest design guidelines to help Metro Vancouver planners. This includes finding which trees will be best suited for the region's future climate and

city environment.

"Some trees are better than others at surviving in higher carbon environments," said Barron, noting that the average lifespan of an urban tree is less than 10 years. With such a short cycle, Barron says planners may also want to consider planting community forests with the most bioenergy potential as facilities that turn wood waste into heat and clean

energy will likely become more common.
Getting input from community
residents will also play an important role
in her work. She wants citizens to explain
their visions for future environments and
what types of plants and trees they would

prefer.
"I want to understand how to better integrate where we live with the natural



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# You can go home again

Victorious UBC coach returns to Poland for world championships

Heather Amos



UBC coach **Marek Jedrzejek** is leading Team Canada to the Cross Country World Championships on March 24.

After leading UBC's cross-country running team to a NAIA championship last November, head coach Marek Jedrzejek is off to the world championships this March where he hopes to steer Team Canada to a top ten finish.

Held in Poland, the Cross Country World Championships will take Jedrzejek back to the country in which he was born. It will also take him back to the city where he lived and worked before defecting in 1982, when Poland was under a Communist government and part of the Soviet Bloc.

"It was very unstable in Poland," he explains. The government had instituted martial law in an attempt to crush political opposition and pro-democracy movements.

Jedrzejek was coaching Poland's national team, competing against other countries in the Eastern Bloc. But in 1982, they went to the European Track and Field Championships in Athens. That's where Jedrzejek made a beeline for the Canadian embassy and applied for refugee status.

Since 1989, when Poland made the shift away from communism to democracy, Jedrzejek has returned to the country many times.

"Almost every trip I go back, I visit my birthplace village," he says. "I love to visit this place—the place where I grew up as a young kid, sport fields where I played soccer...the lake."

During his last couple of trips to the small village of Glubczyn, he brought his two grandchildren, Kate and Cole. "It was a memorable feeling for me to show my grandkids the place where their roots come from."

The World Championships will be held on March 24 in the city of Bydygoszcz, and Jedrzejek arrives with an impressive year behind him. Four UBC track and field athletes competed in the 2012 London Olympic Games. In November, the cross-country team won the women's and combined U.S.-based National Association of Intercollegiate Athletics (NAIA) championship titles—the first time since joining the association in 2001. Jedrzejek is the first coach to win both Canadian and U.S. championships.

"The last few years we've been working really hard," he says. A new facility— UBC's Rashpal Dhillon Track and Field Oval, an all-weather track and grass field that was completed in 2009—and recent team successes have played a big role in recruiting some top-level athletes.

"The team is still quite young so for the next two years we should continue to be strong," he says.

strong," he says.

Two of UBC's own cross-country
athletes have made the national team—
Maria Bernard and Luc Bruchet. At
the NAIA championships, Bernard ran
five kilometres in less than 18 minutes
finishing fifth, and Bruchet completed
an eight-kilometre course in just over 24
minutes, finishing third.

"It is comforting to have someone who is not only your university coach, but is also the national team coach be so familiar with international running," says Bernard. "Marek's experience and

guidance are definitely something I value."

Jedrzejek says his achievements have been hard-won. He arrived in Canada in 1983, speaking very little English and knowing no one. He spent a year in Penticton and then moved to Vancouver, volunteering as assistant coach for SFU's track team. "I had to put myself on the map," he says.

put myself on the map," he says.

SFU's track team made good
progress and in 1986 he took part
in a national coaching institute
and earned his Canadian coaching
certification. He was soon hired
as the high performance running
coach for Athletics Canada, a position
based at UBC.

Jedrzejek has been here ever since, developing UBC's track and field and cross-country
athletes have made
the national team—
Maria Bernard and
Luc Bruchet.

Two of UBC's own

cross-country teams for the past 25 years. This will be his eleventh outing as Canada's head coach for the Cross Country World Championships. He also coached at the 2000 Olympics in Sydney and three FISU (International University Sports Federation) Games.

# Sustainable by design

It's not easy being green but a UBC study shows the right building design is key.

Salina Marshall



Most students didn't even know this was a super-green building. Yet when they were in the building they behaved more sustainably.

st being in a green building makes people act more sustainably, say LIBC Psych, Prof. Alan Kingstone, Alessandra DiGiacomo and David Wu

## Most people don't need to be told to "shush" in a library: the studious

ambience promotes quiet behaviour.

In the same way, UBC researchers have found a significant connection between occupying a green building and behaving in a more environmentally friendly manner. The implications could be momentous for sustainability.

"There's a potential that you can 'design in' environmental conscientiousness," says Alan Kingstone, who heads UBC's Department of Psychology. "A green atmosphere promotes more green behaviour. It's almost like it's in the air."

Kingstone is the senior investigator of a study published in the PLOS ONE journal. His team examined food-disposal behaviour in the café at UBC's Centre for Interactive Research on Sustainability (CIRS) compared to that at the Student Union Building (SUB).

The two buildings are very different from one another. The SUB is a traditional concrete building in the style of its 1960s generation. CIRS is one of the leading regenerative buildings in North America, opened in 2011. Integrated systems were designed to meet goals of zero carbon emissions, water self-sufficiency, net-positive energy performance, and zero waste.

CIRS was also designed with the intent of creating behavioural change. In the café, no bottled drinks are available for purchase and all utensils are compostable.

"It's a building that has a lot of light, a lot of wood, and it feels clean and fresh and sustainable," Kingstone notes.

Despite the structural differences, the eating areas in both buildings have the same disposal options for compostable and recyclable materials. Yet researchers who observed food disposal behaviour found that patrons of the CIRS café were substantially more conscientious about recycling properly. The accuracy rate was 86 per cent at CIRS versus 58 per cent at the SUB.

Both buildings are used by a broad range of students, and the CIRS building does not host a disproportionate number of environmentally-focused classes. Researchers conducted a patron questionnaire to ensure the results didn't reflect a sampling bias. "Most students didn't even know this was a super-green building," Kingstone says,

"yet when they were in the building they behaved more sustainably."

According to Kingstone, location and situation influence our behaviour. But this study shows that people don't even need to know the intent behind the building (i.e. libraries are for reading) to adjust their behaviour.

"It's a cultural thing. You pick up the cues very subtly without even thinking about it," he explains. "If you're in an environment that reflects a sustainable way of being, then you yourself will behave in a way that's more sustainable. You start to go with the flow."

The implication? As a society, we

can create a more environmentally responsible culture without explicitly telling people to change their behaviour. "It seems like design is a useful tool to

create a culture in which sustainability is valued," says David Wu, the study's lead researcher. From a policy-making perspective, "it definitely adds to the cost-benefit analysis of putting in more green buildings."

It can also help create a community that reinforces beneficial practices. For example, designing the garbage area of an apartment complex to have an open, sustainable feel where an individual's actions may be observed by neighbours could promote more conscientious behaviour.

For more on CIRS, see cirs.ubc.ca
The full study can be read at
cirs.ubc.ca/publications

# Protecting land, protecting people

Heather Amos



Janette Bulkan is a new professor in the Faculty of Forestry.

# From Guyana to Vancouver, Janette Bulkan has built a career on protecting indigenous land rights and access to resources.

Her involvement with social issues in forestry began after she noticed more and more chainsaws in indigenous communities in her homeland of Guyana. The men from these communities were getting into logging.

According to Bulkan, the assumption was that any illegal logging in the country was the work of small-scale, local forestry operations. But after visiting forest sites and documenting practices around the country, she saw that it was the large-scale operations that were not adhering to guidelines and policies.

"Many of these operations were owned by transnational corporations which held, or illegally rented, logging concessions," she says.

A new UBC faculty member, Bulkan investigated the slippages between national policies, and government and private sector practices, in forestry in Guyana for her PhD research, which began in 2003 at Yale University. She also worked with indigenous groups to document how these large companies were violating well-established forestry guidelines, land claims and human rights.

They took their concerns to the international banks supporting one of the transnational loggers. As a result, one bank reduced its investments in the sector, and the government imposed penalties on illegal operations.

"Now illegal logging is almost always talked about in the context of what happens on large-scale forestry operations."

For Bulkan, this was an example of how business contracts may put the security of indigenous people at risk, despite the safeguards put in place to protect these communities.

"They have been living on that land for thousands of years. If their rights to that land are at risk, they are at risk," she says. "Some of the world's most biodiverse areas are home to local, indigenous people. So working with indigenous peoples to safeguard their rights brings global as well as local benefits."

Bulkan is teaching indigenous forestry and community forestry in the Department of Forest Resources Management. She sees many similarities between the obstacles faced by indigenous groups from her home country and those faced by Canada's First Nations. More than 75 per cent of Guyana

# "Working with indigenous peoples to safeguard their rights brings global as well as local benefits."

is covered in forests. Like Canada, Guyana's economy is strongly tied to natural resource extraction. There is also a growing interest to use the forests for purposes other than logging, such as selling carbon credits. In both countries, issues around indigenous land rights and land ownership continue to persist.

Bulkan has been involved in the Forest Carbon Partnership Facility in Suriname, which is coordinated by the World Bank, and other aspects of forest carbon management under what is known as the REDD+ approach (Reducing Emissions from Deforestation and forest Degradation).

As one of her next projects, she plans to connect indigenous groups in B.C. and Guyana that may benefit from payments in exchange for protection of one or some of a basket of forest-based environmental services such as sequestered forest carbon, globally important habitat or biodiversity, and supplies of clean water. She wants to help them demonstrate their legal rights to these resources and to use those rights to provide small but reliable incomes from environmental services so they can develop long-term strategies to support their growing populations.

# Research initiatives in the Okanagan grow by 40 per cent

Paul Marck



Sweeping vistas of the Okanagan Valley greet students studying on the bridges connecting classroom and office towers of the Engineering, Education and Management building at UBC's Okanagan campus.

### Just think—one discovery, or a single inventive idea could change the world.

"Imagine the transformative impact of thousands of discoveries, innovations and deeper understanding. That's our vision at UBC's Okanagan campus," says Miriam Grant, vice-provost research and dean of the college of graduate studies.

Since 2006, faculty and student research at the Okanagan campus has grown by a whopping 40 per cent—from \$8.3-million and 351 grants, to \$11.6-million and nearly 500 grants in 2011-12. Research initiatives address such key emerging issues as:

- Water, climate and biodiversity
- Cultural and ethnic diversity · Homelessness and affordable housing
- Urban sprawl and urban development
- · Indigenous rights and traditional knowledge • Value-added agriculture and organic farming.
- Though all strive to add to their grant totals, the pace of research has accelerated dramatically among certain faculties. For instance the Faculty of Applied Science, mainly through the School of Engineering, quintupled its research dollars to \$5-million last year and quadrupled its grant total to 137. The Faculty of Health and Social Development, comprising the Schools of Nursing, Health and Exercise Sciences and Social Work, has doubled its research tally to \$2.1-million. The Faculty

of Creative and Critical Studies has tripled its research total and doubled its number of grants.

"Creating new knowledge and sharing it widely are key pursuits in all UBC research," says Grant. "Every day, our students and their professors are expanding our understanding of the world and our place in it."

UBC's Okanagan campus research funding

has grown by 40 per cent in five years.		
Year	Amount	Grants
2006/07	\$8,326,100	351
2008/09	\$9,837,120	348
2009/10	\$8,497,327	369
2010/11	\$9,798,775	403
2011/12	\$11,685,047	490
Total	\$48,144,369	1,661

Professors Stephen Porter and Joan Bottorff have been awarded the distinction of Researchers of the Year at UBC's Okanagan campus.

# **Two Outstanding** researchers honoured

Patty Wellborn

There was no easy winner this year when it came to the Award for **Excellence in Research on UBC's** Okanagan campus—the honour is being shared by Joan Bottorff and Stephen Porter.

As a nursing professor and director of the Institute for Healthy Living and Chronic Disease Prevention, Bottorff has led research programs in nurse-patient relationships, cancer control, and health promotion. As a mentor and researcher, Bottorff is a co-application and faculty supervisor on seven research grants that total more than \$12-million including the \$928,000 2012 Canadian Cancer Society Research Institute award. She has supervised nine post doctoral fellows, seven doctoral students, and seven masters students.

Bottorff was recently inducted into the American Academy of Nursing as a fellow, an extremely rare honour for a Canadian nurse academic to receive, says associate professor of Nursing Carole Robinson, her nominator.

"She is a generous colleague who has made a significant contribution to the culture, inclusiveness and sustainability of research scholarship on the Okanagan campus," says Robinson.

Porter has also earned accolades for his research and classroom work. Along with that he has established the highly popular specialization in forensic psychology within the psychology honours program.

"He seems to be everywhere, in a good way," says Irving K Barber School of Arts and Sciences Dean Cynthia Mathieson. "In the classroom, he is a dynamic well-respected teacher. His graduate students rave about his supervision and in terms of his research profile he may very well be the Canadian expert on psychology and the law. And at the risk of being colloquial, I have to add that he is a nice guy."

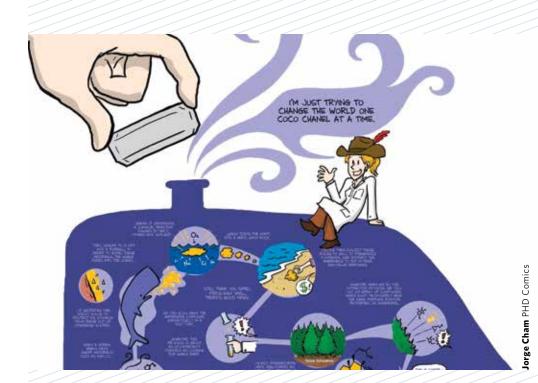
The forensic psychologist has spent decades delving into the truth about people who tell lies, how we perceive sincerity, and the psychology of professional liars. He has helped to establish the Centre for Advancement of Psychological Science and Law. He specializes in investigative psychology and has become a sought-after psychological expert for the police and courts.

His nominator, Prof. Paul Davies, notes that Porter has a distinguished research record with more than 100 publications, and he has also won research grants that add up to close to a million dollars.

Porter and Bottorff will receive their Award for Excellence in Research on Friday, March 8 at the Celebrate Research Gala. The event takes place at University Theatre, Administration building with a reception to follow in the Richard S. Hallisey Atrium, Engineering, Management and Education building, UBC's Okanagan

# outtakes

What a Three Minute Thesis finalist is doing one year later. A conversation with Baillie Redfern Genome Science and Technology Program, under the supervision of Dr. Jörg Bohlmann



An image from the animated two-minute video of Baillie Redfern's thesis on whale barf and perfume

Since participating in UBC's 2012 Three Minute Thesis competition—an annual event where grad students boil down their research into a three-minute talk—Baillie Redfern has embraced public speaking. Her thesis, on cloning a gene in balsam fir trees that could replace a substance derived from whale barf for perfumes, was selected for animation by renowned cartoonist Jorge Cham after a competition called PHD Comics. In April, she travels to Albuquerque to be the first Métis woman to compete in the Miss Indian World Pageant and has selected storytelling as her traditional talent.

### **UBC's 3MT competition**

I'm among the first generation to go to university in my family. I have a lot of aunties and uncles so I have had plenty of practice explaining my research and why it is important. If I said my thesis was about trying to clone some genes, no one would care about that. To make it interesting, you have to make your work relevant

I practiced my 3MT talk so many times and I knew it so well. During the finals, I stumbled over some words and repeated a sentence. When you only get three minutes if you mess up once, its tough to redeem yourself.

### The animated thesis

The PhD comic competition was based on fan votes and I didn't get enough votes to win. But then I got an e-mail from Jorge Cham saying that he wanted to make my thesis into a cartoon. We only had three weeks to work on the video but it was fun. I asked Jorge to draw me wearing cowboy boots and with feathers in my hair because of my Métis identity.

## The importance of communicating your work

If you want people to be interested in what you're doing, you have to be vocal. That's why I've picked public speaking as my talent for the Miss Indian World Pageant. It's not a beauty contest but we do show off our cultural talents, traditional knowledge and express our identity through powwow dancing. To demonstrate my traditional talent I have chosen to share a story my grandmother told me about traditional medicinal plants.

Watch the animated video of Baillie Redfern's thesis at: ow.ly/i6lHF

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