



LANDSCAPES OF INJUSTICE

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THE RING

OCTOBER 2020

*The University of Victoria's
community newspaper*

ring.uvic.ca



University
of Victoria

SPEED READ

PLANNING FOR THE FUTURE

UVic budget update

From Vice-President Academic and Provost Valerie Kuehne and Vice-President Finance and Operations Gayle Gorrill:

When UVic first prepared the 2020/21 budget, we could not have predicted a global pandemic. In June, we revised the budget to reflect the anticipated impacts and necessary investments.

We appreciate the efforts made across campus to implement mitigation strategies to address the anticipated impacts. The pandemic resulted in reduced operations on campus and, unfortunately, in the temporary layoff of some staff, though many have been redeployed.

To ensure campus safety and support students, faculty and staff in this remote learning and working environment, significant investments have been made. While some uncertainties remain, we believe that the measures put in place will address the budget gap this year. Your health and safety remain our highest priority. We will provide updates as we move forward together.

More info: bit.ly/20-budget



McIvor. UVIC PHOTO SERVICES

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NUMBER OF
FACULTY
MEMBERS
AWARDED
A UVIC
PRESIDENT'S
CHAIR

Indigenous languages as lessons in hope

Onowa McIvor becomes the third recipient of the UVic President's Chair for contributions to Indigenous language scholarship and for the impacts her work is having on communities revitalizing culture.

BY JODY PATERSON

In another time, Onowa McIvor would have learned the language of her ancestors from her mother, who in turn would have learned it from her parents, back through the generations. That personal truth has fed McIvor's passion for the revival of Indigenous languages in Canada for more than 20 years.

McIvor's vital contributions to this important field of research have now earned her the prestigious President's Chair, the highest academic honour the University of Victoria can bestow on a faculty member,

replacing Distinguished Professorships at UVic. She is the third person to receive the award, which was created to recognize faculty who have achieved great distinction in research and research-inspired teaching; made substantial contributions to UVic and the wider community; and champion the pursuit of excellence in research, teaching and community-university engagement.

"UVic has a longstanding commitment to working with communities on Indigenous language revitalization, and the impact of revitalized language in communities is profound," says UVic President Jamie Cassels. "Onowa McIvor's work is

inspiring and uplifting, and we are so fortunate to have a researcher and teacher of her calibre at UVic."

McIvor, an associate professor in UVic's Department of Indigenous Education, says she's honoured to have been chosen for the President's Chair. She acknowledges some discomfort with the way awards single out one person for recognition, when in fact the work of Indigenous language revitalization and Indigenous culture overall is so much about the wisdom and efforts of the collective.

SEE PRESIDENT'S CHAIR P.8

A glance back as Cassels presidency winds down

BY JODY PATERSON

Even when the opportunity that came knocking was an invitation to become the president of the University of Victoria, Jamie Cassels had to really think about whether he was prepared to give up teaching.

He loved seeing his law students fired up by what they were learning, but Cassels also recognized that as president, he'd be helping shape the education of every UVic student, not just the ones who passed through his law classes. He'd be helping shape a collegial, collaborative and inclusive workplace, too, "the kind of place that I'd like to work at."

So he said yes. And eight years on, his many admirers at UVic are very glad he did.

Cassels will end his term as president in November, when incoming president

Kevin Hall takes the helm. It's a time of reflection for Cassels, who has taught and worked at UVic for almost 40 years in roles ranging from law professor to Vice President Academic and Provost, and on up to president.

Cassels doesn't like the word "legacy," but does hope that his time as president has helped the university identify and tap into its authentic strengths.

"UVic's research culture—along with its focus on students, engagement with community and work tackling global challenges like climate change and reconciliation—was already well-established. These weren't things I imposed. They were in the DNA of the university," he says. "Perhaps my legacy has been helping the university shape its own narrative around these

SEE CASSELS PRESIDENCY P.2



Cassels. NIK WEST PHOTO

around
the ring

Voting in the
provincial election

The provincial election will take place on Saturday, October 24, 2020. According to the provisions of the British Columbia Election Act, employees who work a normal day shift on that day may leave to vote at 4 p.m., four hours prior to the polls closing at 8 p.m. unless other arrangements have been made. More info: bit.ly/20-vote

Make time for self-care

Making time for self-care is important for your overall health. Your employee and family assistance program (EFAP) can help. Look for upcoming webinars on topics like “Worry Less, Enjoy Life More” and “Getting a Restful Sleep” through Learning Central. Full info: bit.ly/20-hr-learn

Test drive online
technologies

Computer Help Desk staff can remotely assist staff, faculty, instructors, departments and students test online collaboration platforms before events, meetings or classes. Online test drives are available for Zoom, Microsoft Teams, Kaltura, Crowdmark and more. bit.ly/20-techdrive

Abandoned bicycles

Since March 2020, Campus Security staff have collected approximately 100 bicycles from campus bike racks. If your bike was left on campus, you'll need a description of your bike or proof of ownership to retrieve it. Bicycles not claimed by Oct. 31 will be recycled, donated or disposed of through the UVic Surplus Asset Disposal Program, with any funds received going to student bursaries. Contact Campus Security to claim your bike. More info: uvic.ca/security



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One year after tragic bus accident

IT IS ONE YEAR SINCE THE TRAGIC BUS ACCIDENT on Sept. 13, 2019 near Bamfield Marine Sciences Centre. In a message to the UVic community at the start of term, President Jamie Cassels shared his profound sadness for the deaths last year of Emma Machado and John Geerdes, two first-year biology students, and reflected on the difficult aftermath of the accident for all students involved and their families.

In remembrance

The university, in honour of the wishes of John and Emma’s families, is establishing two scholarships in remembrance. The scholarship in Emma’s name has already been awarded this term to a UVic undergraduate student in the Department of Biology. The scholarship in John’s name will be confirmed in the coming months.

A memorial bench—graced with

a plaque about Emma and John, and situated in a specially designated area in Finnerty Gardens—will be installed this term as a place of remembrance and reflection.

Progress on recommendations

Following the accident, the university undertook a review by an external consultant with relevant expertise.

UVic released the subsequent report publicly in June and also outlined important changes for UVic field trips to Bamfield in response to the recommendations.

The report identifies 43 recommendations of varying complexity—all of which the university fully accepts and is actively working to implement in their entirety.

Three are complete, twenty recommendations are currently in progress and 20 are in planning stages, with a number

of these on track for completion by the end of this year. All recommendations related to travel and trip planning will be completed before field trips recommence to Bamfield.

Due to COVID-19, the Bamfield Marine Sciences Centre is not booking field trips until at least April 2021. Last month, the BC government and Huu-ay-aht First Nations announced they have partnered to make improvements to Bamfield Road.

UVic encourages students, faculty and staff who, in thinking back to this time last year, also find they need support this term to contact the available services.

Read September’s online article at bit.ly/20-accident for details of how UVic is remembering John and Emma, as well as progress on the recommendations and a link to the government news release on the road improvements.

CASSELS
PRESIDENCY

CONTINUED FROM P. 1

things, and for me its been a chance to live out my own values through my work.”

Spending the final months of his presidency in the grips of a global pandemic has brought unprecedented challenges, with COVID complicating every facet of UVic operations. “It has turned the lives of our students, staff and faculty upside down,” says Cassels.

But at the same time, he notes that there couldn’t be a more vivid example of the importance of life-long learning, one of the tenets he most values.

“Just think about how much we’ve all learned through this,” Cassels emphasizes. “The pandemic has shown us the importance of higher education, of having researchers ready to respond to the questions we need answers to, and students on pathways to adapt to a changing future. It demonstrates that what really matters is not what you know, but having the skills to go find the answers. Education is the bridge over the gap that we are currently looking across.”

In 2009, when he was Vice President Academic and Provost, Cassels’ commitment to UVic’s distinct integration of research and teaching led to the creation of a program of undergraduate research awards that were subsequently—and to his great surprise—named in his honor as the Jamie Cassels Undergraduate Research Awards (JCURA).

The annual financial awards encourage third- and fourth-year undergraduates to pursue innovative and original research to enhance their learning, an experience that prepares them for graduate studies or a research-related career. More than 100 students receive a JCURA every year.

“Jamie has identified the strengths of UVic and given them a structure to further themselves,” says Helga Thorson, a UVic professor in the Department of Germanic and Slavic Studies. “JCURA is part of that. For faculty, he implemented the Strategic Framework Impact Fund, which is helping us come together across faculties with a common goal.”

Cassels feels grateful to work at an institution that shares his commitment to building the continuity from the classroom to the world. He appreciates that UVic’s diverse co-op education options, field schools and lab experiences give students “the

In recognition of Jamie Cassels’ extraordinary contribution and nearly 40 years of service to UVic, the University Centre will be renamed the Jamie Cassels Centre. UVIC PHOTO SERVICES

opportunity to get their hands dirty in their field of knowledge.”

COVID has complicated that effort, he acknowledges. But the limitations imposed by social distancing requirements are also helping the university understand where it most needs to step up to meet new challenges.

“What are the experiential learning opportunities that really do require us to push back on COVID? How can we safely deliver field schools and lab experiences? We’re asking those questions,” says Cassels.

Cassels values any chance to connect with students, whether it’s a casual chat on the number seven bus, or in more formal ways, such as interacting with student government or in consultations during the run-up to a new strategic plan. But honours events remain his favourite venue to engage students.

“The students are just on fire at those events, and you get a sense of what they want, what they need, what they worry about,” says Cassels. “Every single one of the posters at the event defines a problem that’s important to all of us.”

UVic staff also appreciate Cassels’ open way of engaging. Karissa Sovdi, UVic’s human resources program and projects manager, has been struck by his genuine interest in everyone he meets.

“He’s always professional and never pretentious. Humility is the word that comes to mind for me,” says Sovdi, who has worked with Cassels through

out his presidency. “You always hear him saying ‘Our greatest resource is our people,’ and that’s never just a line for him. For staff, that’s so important.”

A half century ago, universities were elite institutions serving students who were overwhelmingly white and wealthy. Those days are happily over, says Cassels. A culture based on equity, diversity, inclusion and mutual respect is now the “foundation of excellence” for any university.

Achieving that goal starts with making room for everyone’s voices, he adds—even the ones that cause discomfort.

“I don’t believe that social change can be accomplished just by condemning or shutting out ideas,” says Cassels. “University should be a place that is on the cutting edge of social change, but where you also can hear divergent views, and make mistakes. We can change the world through research and education, but that requires an environment where mistakes and failures are accepted and treated as opportunities for dialogue and learning.”

Long before reconciliation was a common topic, Cassels was a champion for Indigenous education, supporting efforts that have dramatically increased the number of Indigenous students and graduates at UVic and programs to empower Indigenous communities. Those efforts are broad, including innovative programs in Indigenous languages, history and culture, social and economic capac-

ity building, and Indigenous law and governance. And throughout Cassels’ career, the initiatives have been personal, too.

As dean of law, he helped launch the northern Akitsiraq law program for Inuit students. As provost, he played a key role in securing funding and helped convene the group effort that would become the LE,NO,NET student support program, and saw UVic’s Indigenous enrolment more than double to make-up six per cent of our overall student population.

And during his time as president, UVic established the world’s first joint law program in Indigenous legal orders and Canadian common law, as well as a university-wide Indigenous Plan and the Strategic Framework—reaffirming the university’s commitment to act on the recommendations of Canada’s Truth and Reconciliation Commission to enhance educational opportunities for Indigenous students.

In a world coping with so many complex challenges, UVic’s long-standing commitment to leading change and supporting lifelong learning has never been more vital, says Cassels.

“We use the word ‘impact’ a lot at UVic, because what we’re doing makes a difference,” says Cassels. “We’re responding to what the world needs. What I hope students take away from my time as president is to have the curiosity and aptitude to keep on learning. It’s not what you know now, but being empowered to keep on learning.”

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Orange Shirt Day 2020 at UVic

Online events included a conversation between UVic Chancellor Shelagh Rogers and Phyllis Webstad, whose story sparked the drive to recognize Orange Shirt Day. If you missed the virtual event, you have until October 30 to watch the online video.

BY BARBARA TODD HAGER

This year, COVID-19 safety restrictions kept us from coming together in person to commemorate and honour the healing journey of residential school survivors and their families on September 30. An extraordinary virtual Orange Shirt Day nevertheless inspired UVic's students, faculty, staff and alumni living in every part of the world to reflect on how our educational systems can bring together Indigenous and non-Indigenous Canadians in the spirit of reconciliation. Orange Shirt Day is a national movement that takes place every year on September 30. Since its inception, the event has inspired schools and universities across Canada to develop and implement curriculum and activities that recognize the damaging impacts on Indigenous peoples who were forced to attend the federally funded, church-run schools. Close to 150,000 Indigenous children and youth attended the schools from the mid-



1800s to 1996, when the last school closed, and it's estimated that close to 6,000 died while attending residential schools. One of the highlights of UVic's online event this year was a conversation between UVic Chancellor Shelagh Rogers and Phyllis (Jack) Webstad, whose childhood story about residential school inspired the Orange Shirt Day movement. The event also included messages from Indigenous Elders and UVic community members, and a Lekwungen drumming presentation. Countless UVic faculty, staff and students wore orange shirts on September 30, as a visual symbol of our awareness of the need for ongoing reconciliation—and shared photos of themselves on social media using #OrangeShirtDayUVic. There's also plenty of time to show



Top: Rogers and Webstad in conversation. Bottom: staff at the Legacy Gallery Downtown participate in the #OrangeShirtDayUVic social media campaign.

your support by making a contribution to the Elders Engagement Fund, ITOTELNEWTEL LTE: learning from one another. This initiative ensures meaningful engagement and increases the opportunity for students, faculty and staff to have access to Elders'

knowledge, teachings, and support. This fund will also support events and activities such as faculty seminars, classroom visits, elder honorariums and meetings with community groups and local First Nations communities. More: bit.ly/20-osd

UVic's second annual report on the Strategic Framework

On May 29, 2018, after months of consultation with more than 2,500 members of the UVic community, the Board of Governors approved *A Strategic Framework for the University of Victoria: 2018–2023*. It officially launched on Sept. 19, 2018. The second annual Strategic Framework Implementation Report builds on the efforts of the first year, emphasizing new initiatives, and highlighting accomplishments over the past year towards achieving the university's shared vision and goals. This report also acts as a record of how the university community responded to the COVID-19 pandemic so far. The report highlights major institutional initiatives—a new UVic central website, the opening of the Student Wellness Centre and 24/7 mental health program, and the Health Sciences Initiative—and also tells the story of our dedication to the highest standards of teaching, research and creative activity, and service during the pandemic. More than \$1.4 million in funding was provided to approximately

2,000 students through the UVic COVID-19 Emergency Bursary to help with a variety of needs, from housing to technology for online learning. UVic researchers pivoted their efforts to create necessities like face shields and hand sanitizer, while students, faculty and staff successfully shifted to online learning, teaching and remote work. “While there is no question that this past year has been unlike any other, all that we have accomplished together in the shadow of the COVID-19 crisis is truly remarkable,” says UVic President Jamie Cassels. The report continues to honour UVic's commitment to accountability and transparency. Guided by the framework, UVic continues to make progress on our vision to be the Canadian research university that best integrates outstanding scholarship, engaged learning and real-life involvement to contribute to a better future for people and the planet. The *Strategic Framework Implementation Report 2019/20* is available as a downloadable PDF at bit.ly/20-implement.

Victoria Forum bridges divides in wake of global pandemic

In partnership with the Senate of Canada, the University of Victoria is bringing together changemakers to help generate solutions to some of the world's most divisive problems. On Nov. 13 and 14, a virtual forum will explore topics and issues on the theme of bridging divides in this time of COVID-19. The two-day event will draw on emerging trends and lessons learned through the biweekly webinars which have taking place since May and continue through October. Three years ago, the inaugural Victoria Forum in November 2017 brought together approximately 500 participants representing different levels of governments, business, academia and civil society to take stock of the state of diversity and inclusiveness in Canada on its 150th anniversary, and to look to the future. “We are honoured to have the Senate of Canada partner with us for the 2020 Victoria Forum,” says Saul Klein, chair of the Victoria Forum and dean of UVic's Gustavson School of Business. The Virtual Victoria Forum 2020 (and webinars) and Victoria Forum



2021 are jointly hosted by UVic and the Senate of Canada. The webinar sessions this season, supported by founding sponsors TELUS and Vancity Credit Union, are available online and take a closer look at complex issues—from systemic racism to the power of sport to heal—by welcoming guests from around the world to discuss these topics and offer insights and solutions for moving forward to make the world a better place. Next year, the flagship Victoria Forum will be held in November under a broader theme and will include a series of panels, plenaries and think-tank style sessions, all designed to create space for evidence-based discussions. More: victoriaforum.ca

around the ring

LEED Gold for District Energy Plant

The university's District Energy Plant (DEP) recently became the ninth UVic building to earn LEED Gold certification from the Canada Green Building Council. In addition to being built using sustainable construction practices, the DEP's efficient boilers fitted with new control systems, and ultra-efficient energy transfer stations across campus will lead to a minimum of 10 per cent in energy savings annually and a reduction in GHG's by 6,500 tonnes. You can see the DEP in action in parking lot 6, near the Interfaith Chapel, and take a self-guided tour of the interpretive panels outside the building. bit.ly/20-DEP

New mobile parking app

You can now use a contactless app to pay for daily or weekly campus parking. Download the free HonkMobile app from the AppStore or Google Play, and pay for parking directly from your phone. Drivers can also opt in to receive a 15-minute reminder before their parking session is set to expire, and are given the option to add more time remotely. The ability to top up via the Honk app eliminates the need to run out and feed the meter when classes or study sessions run late. More info: uvic.ca/parking

Campus Cycling Plan work begins at University Drive

Construction is kicking off on the first phase of the Campus Cycling Plan implementation. A separated bike lane and pedestrian pathway will be installed at the University Drive and Ring Road intersection during October and November. Watch for safety signage and intermittent path closures. bit.ly/20-cycling

Great BC ShakeOut

Even during this time of COVID we all need to be prepared for other emergencies, including earthquakes. The annual Great BC ShakeOut earthquake drill takes place Oct. 15 at 10:15 a.m. Whether you're in the classroom, at home or in the office, take a few minutes to become prepared. Visit uvic.ca/shakeout for resources and practice the Drop, Cover and Hold On procedure wherever you are. More: uvic.ca/shakeout or epmanager@uvic.ca

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Building energy efficiency

Machine learning helps researchers design energy-efficient buildings that don't yet exist

BY JODY PATERSON

Governments and industry are looking to university researchers for the tools to help them explore every aspect of building design through a lens of energy efficiency.

UVic civil engineering professor Ralph Evins is helping lead this important work. Evins and his team are tapping into machine learning to create a modelling tool that can quickly calculate the energy efficiency of any possible design and how design choices interact with one another.

How much difference might bigger or smaller windows make? Thicker insulation? A different type of heating system? These are big questions when designing for energy efficiency, and differ for every situation and location, which are also factored into the model.

Current computer simulations are impossibly slow, hampering the creative nature of the design process. Evins' industry-supported PhD research gave him an appreciation for the private sector's pressing need for fast solutions. Computer simulations that take an hour or more to run are not a good fit for a professional needing to quickly test a multitude of design elements and materials to see how energy efficiency is affected.

Evins' team has developed "surrogate" modelling that acts as a substitute for the more detailed computer models of physics-based processes that take much longer to run. Instead of long hours of waiting for computer calculations on myriad potential design elements, people using Evins' model will be able to quickly and easily explore the trade-offs and interactions between design choices and performance metrics.

"We're putting better tools in place," says Evins of his research. "Optimization for energy efficiency has been the buzzword since my PhD years, but this new modelling approach allows for the more intuitive kind of process that architects, engineers and developers use when they're thinking about building design."

The result is a real-time tool that puts machine-learning algorithms to work solving more important world issues than how to connect social media users to more cat videos, says Evins with a smile.

The multi-disciplinary research is funded by the Natural Sciences and Engineering Research Council, the CANARIE Research Software Program and consulting engineering firm WSP—one of eight companies and 10 other entities helping review and steer the research.

The tools being developed will help these partners to meet the stringent new BC Energy Step Code, which incentivizes energy efficiency in new construction. Evins' students bring a variety of backgrounds to the research, including extensive experience in the building industry that led them to join Evins in the search for better building models.

Evins believes the surrogate modelling can be equally useful for exploring retrofits for existing buildings. With big data sets now available to researchers, including anonymized data from 80,000 households with ecobee smart thermostats, the models can be used to explore when it makes more sense to retrofit a building than to replace it.

The modelling also helps industry prepare for a changing future. Evins works with another UVic entity, the Pacific Climate Impacts Consortium, to incorporate future climate modelling into the important work of designing buildings for new climate realities. Surrogate modelling tools for increased energy efficiency are critical components in helping Canada prepare for cli-



Evins at the new campus District Energy Plant. UVIC PHOTO SERVICES

mate change and achieve its binding emissions reduction commitments.

Machine learning involves putting computer algorithms to work finding patterns in massive quantities of data. It's the driving force behind tech giants like Google, Amazon and Netflix, but has many more applications beyond shaping our shopping and surfing habits. Evins' surrogate modelling work uses machine learning to understand building energy performance so that design professionals can quickly and easily assess different design elements.

Energy "optimization" has been a hot topic for university researchers for more than a decade, but has had little traction in industry. Surrogate modelling provides an opportunity for building designers to achieve optimal designs while working in their usual intuitive way. "It's very hard to sit down with someone and say, 'List

everything you want in a building,' which is how optimization works. With surrogate modelling, it isn't necessary to state the problem like that," notes Evins.

The data generated for Evins' surrogate modelling tools is revealing information that no one has seen before. The work is bringing unprecedented insight into the intricate relationship between individual design elements and how that interplay affects energy efficiency.

Surrogate modelling is multi-disciplinary. Evins' team features researchers with backgrounds in mathematics, physics, computer science, architecture and engineering.

Evins' background is in fluid dynamics, which could prove useful as his research team expands its surrogate modelling work to encompass how air flow in and around buildings affects energy efficiency.

Q & A with Sarah Hunt / Tłaliłila'ogwa

UVic Canada Research Chair in Indigenous Political Ecology

Sarah Hunt / Tłaliłila'ogwa, a member of the Kwakwaka'wakw Nation from the northern part of Vancouver Island, grew up locally on the Songhees reserve in Lekwungen territories. Hunt competed her undergraduate degree at UVic, and PhD at Simon Fraser University, before moving on to serve as a professor at UBC for five years. She is a Canada Research Chair in Indigenous Political Ecology in UVic's School of Environmental Studies, a prestigious professor position given to Canada's best and brightest scholars. Here she sits down with *The Ring* to discuss her research, her return home, and what it's like to be a role model for the huge number of Indigenous students who are changing the way academia works across the country.

In addition to being a professor, you're also a UVic alum. What brought you back to the island?

Since completing my undergrad at UVic, I've spent over two decades collaborating with Indigenous communities across Turtle Island. After working as a professor at UBC for the past five years, I was eager to come back home to the island so I can work more closely with island communities.

What questions have you taken up in your research with Indigenous communities?

Most of my research has focused on various kinds of violence—systemic violence, interpersonal and gendered violence, and environmental violence. This work has exposed the problems within Canadian systems of law and governance, and the struggles we still have in trying to achieve justice for Indigenous People—whether in relation to questions of land title, environmental decision making, child welfare, or the crisis of gendered violence that has resulted in thousands of women and

two-spirit people being murdered. In recent years, I've kept this focus but deepened my engagement specifically with Indigenous nations on the coast, so returning back to UVic and to the island lets me really immerse myself in these coastal communities.

Can you tell us more about your research chair?

In May, I started a faculty position in Environmental Studies, as Canada Research Chair in Indigenous Political Ecology. These research chairs are awarded to scholars who are doing innovative and potentially transformative work in their field. As an Indigenous woman, I feel especially honored because very few CRCs in Canada have been awarded to Indigenous scholars. Currently Indigenous People represent less than two per cent of all CRCs in Canada.

In this new role, I will be taking up questions of justice from within the perspectives of Indigenous People from the island nations—the Coast Salish, Nuu-Chah-Nulth and Kwakwaka'wakw. Our nations have always lived beside one another, and have worked in relationship while making decisions about our waters and lands, fish and trees, and wellbeing of our families.

Over the next five years, I will be undertaking research in collaboration with people from the island nations to look more closely at how we understand justice from within our culturally specific teachings and practices. Within many of our teachings, we as coastal people understand our lives to be deeply interwoven with the wellbeing of the ocean, lands, plants, fish, animals and spirit world that exist within our territories.

We don't view these as resources or environments separate from us,

but as living beings, or in some cases as expressions of the same spirit that animates who we are as peoples. So the research I'll be doing will centre these teachings in order to understand what this means for achieving justice for our people, on our terms.

How is justice for our lands and waters interwoven with justice for young people in our communities? How do we think of ending violence against women, when we understand women's lives to be inseparable from our ancestral obligations to ocean life? These are big questions, and I'm really excited to have this opportunity to immerse myself more in research that allows me to practice my culture, learn my language, and connect more deeply with people and places that my ancestors have always known.

How will you connect with Indigenous students?

As an Indigenous prof, I take my responsibility to Indigenous students very seriously. When I started my undergrad at UVic in the 1990s, I only knew of one Indigenous faculty member here—Lorna Williams in the Faculty of Education. Since then, the landscape for Indigenous faculty and students has drastically changed. But universities can still be a daunting place, and often a hostile place, for Indigenous students, community and faculty. I try to make my classrooms places where Indigenous students are seen and heard, and where their realities are centred. I work closely with Indigenous grad students to support them in designing graduate research that addresses the needs of their own communities. I'm also committed to supporting Indigenous student leadership, and believe in the power of student resistance movements in transforming colonial institutions—



Hunt. UVIC PHOTO SERVICES

much of my own activism started here when I was an undergrad involved with the Native Students Union.

What does it mean to be a role model?

Primarily, being a role model means walking the talk. By this I mean that it's not enough for scholars to talk about social change or to write about questions of justice—we need to put our bodies on the line and immerse ourselves in the struggles our work is concerned with.

For me, this means showing up and actively supporting community events related to struggles over land, as well as over murdered and missing women and 2SQ people. It also means working in solidarity with struggles for racial justice, like Black Lives Matter, as well as housing justice, harm reduction and many other pressing issues of inequality that our communities are facing. I come to this work as an activist first, and a scholar second, and I want to show young people that you don't have to leave your activism or your culture behind in order to succeed in your education. It's not easy, but it is possible, to bring your whole self to a job like this.

What do you hope your research will achieve?

On a personal level, I hope that this research on coastal justice will allow me to learn my Kwak'waka' language and to spend time in Kwakwaka'wakw territories where my ancestors have always cultivated a sense of themselves by knowing intimately the ocean, the shorelines and lands that sustain who we are as a people.

On a larger level, I hope to create space for us to change the way justice is talked about for Indigenous People, both within our own communities and in environmental movements, conversations on climate change, water governance and land rights. I hope the research will reveal tools and resources for coastal people to deepen our expressions of self-determination both in everyday ways and in the governance of our territories, and take significant steps to make a more just future for our next generations. Ultimately, I hope to lessen the violence Indigenous People face, by engaging in the resurgence of coastal philosophies and practices of justice with one another, our waters and lands, neighbors and kin.

The untold stories of dispossessed Japanese Canadians

BY TARA SHARPE & PHILIP COX

KAORU ATAGI WATCHED HIS FATHER, TSUNEMATSU, fish in the summers and build boats in the winters. The Atagi Boatworks opened in 1905 and Kaoru had thought one day it would be his. Teiji Morishita and his family owned a store in Vancouver; its motto was “thin profit, thick trust.” When King George VI and Queen Elizabeth visited Victoria in 1939, they were served Murakami strawberries from the Salt Spring Island farm cleared by Keiko Mary Murakami’s father.

These are some of the untold stories of more than 22,000 Japanese Canadians who experienced profound loss in the 1940s following their permanent displacement and total liquidation of their property. This fall, the Landscapes of Injustice project—launched six years ago and led by the University of Victoria—unveiled a new national exhibition on the lesser-known aspects of Japanese Canadian internment in the 20th century.

“Broken Promises,” which opened last month at the Nikkei National Museum and Cultural Centre in Burnaby, frames the truth about the dispossession of Japanese Canadians through the personal histories of seven families who lost their homes, personal property and livelihoods—along with their civil and human rights—despite government guarantees of protection.

The dispossession and multi-generational trauma are a direct result of a sustained federal campaign initiated by the Canadian government eight decades ago.

“This exhibition launches in the midst of long overdue conversations about racism in Canada,” says project director Jordan Stanger-Ross (history). “It is a time for excavating how our present realities are shaped by past inequalities.”

Using a wealth of previously unreleased photographs, personal interviews, official documentation and letters of outrage and protest to explore this disturbing past, “Broken Promises” invites the public to grapple with the complicated legacies of racism in Canada.

It is the culmination of six years of award-winning research by Landscapes of Injustice, the multimillion-dollar research and public history project begun in 2014. One of the largest humanities-based research projects in Canada today, Landscapes of Injustice is based at UVic’s Centre for Asia-Pacific Initiatives and involves 15 other partner institutions including four other universities, two government agencies, four major Japanese Canadian organizations, one provincial and one federal museum, and three historical societies and learning associations, as well as researchers in two faculties (humanities and social sciences) at UVic.

Also unveiled last month was a new website (loi.uvic.ca/narrative) that complements the exhibition and presents the findings of Landscapes of Injustice in an accessible, compelling narrative format.

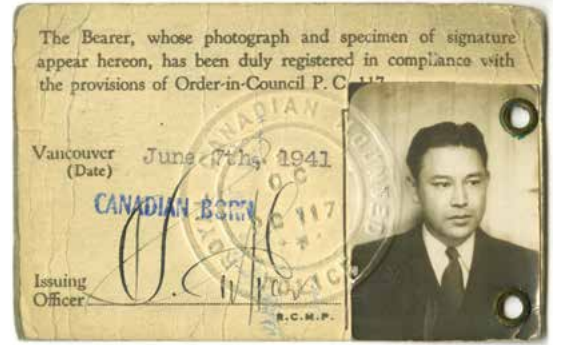
“Broken Promises” involved a collaborative approach to learning and teaching a history of injustice that enables those with lived experiences to tell their own stories in a way that speaks to a broader, collective history. The process was grounded by community-based knowledge and priorities.

And the community engagement continues: the exhibition’s launch, live-streamed Sept. 26, has already been viewed more than 4,000 times.

Visit bit.ly/20-untold to learn more about the families featured in the new exhibition, to view archival photos and find out more about this multi-year project and, for those who cannot visit the exhibition in person, a virtual tour will be available in the near future.

The exhibition opened to the public Sept. 29 and runs till April 2021, ahead of a national tour which is scheduled to start in Toronto in May 2021, followed by Victoria in early 2022, with dates in Halifax and other regional locations yet to be announced.

The project is supported by a \$2.5-million grant from the Social Sciences and Humanities Research Council and \$3 million in matching contributions from institutional partners. The exhibition received an additional grant of \$285,000 from Canadian Heritage.



CLOCKWISE FROM TOP: The Murakami Family in BC’s Interior (image courtesy of Salt Spring Island Archives). Store closed after forced relocation of Japanese Canadians (Jack Lindsay, City of Vancouver Archives). A registration certificate, numbered 10333, issued to Hiroshi Okuda in June 1941 (image courtesy of Nikkei National Museum & Cultural Centre). Atagi Boat Works (image courtesy of UBC Rare Books and Special Collections). All photos featured in “Broken Promises” exhibit.

What did ancient wool dogs eat? Mostly fish that people fed them.

Anthropology undergraduate Dylan Hillis’ work in collaborative coastal community research confirms Indigenous knowledge of dogs’ diet.

BY ANNE MACLAURIN

Along Vancouver Island’s west coast, the traditional territories of the Tseshaht First Nation span the Broken Group Islands, with thousands of years of pre-colonial history.

For the past few summers the Tseshaht First Nation has generously collaborated with UVic archaeologist Iain McKechnie, co-director Denis St. Claire, Parks Canada, the Bamfield Marine Sciences Centre and Hakai Institute to bring UVic students into the field. Tseshaht First Nation community members including project members Wanda Robinson and Cole Gomez-Leishman as well as the Tseshaht Beach Keepers played a significant role in sharing culture and knowledge with the students.

An exciting outcome of this collaboration has been the isotopic

analysis of domestic dog remains dating back 3,000 years including an ancient breed of ‘woolly dog’ on Keith Island (Kakmakimilh), an ancient Tseshaht settlement in the Broken Group Islands. For UVic student and lead author Dylan Hillis, the analysis of ancient dog remains was the cornerstone of his undergrad honours research and NSERC undergraduate research award.

In a newly published paper in *Scientific Reports*, Hillis and co-authors including UVic professors Iain McKechnie and Chris Darimont provide the first specific estimate of ancient dog diets on the BC coast using zoo-archaeological data as well as a stable isotope modelling approach which uses statistical estimates to distinguish from potential food sources.

“Our research indicates that Tseshaht dogs were eating and possibly being fed significant amounts of marine fish—specifically, anchovy, herring and salmon, amounting to approximately half of the food they consumed throughout their lives,” says Hillis.

“We were able to provide direct and detailed evidence for the consumption of marine resources by dogs and humans of Tseshaht territory,” Hillis adds. “Obviously, the role that humans took was substantial since dogs were not catching these fast-moving fish on

their own,” he adds.

The study’s co-authors say that such perspective allows us to better understand human–dog relationships, animal husbandry practices and the cultural and economic significance that these dogs had in Tseshaht Territory and beyond.

Denis St. Claire is an adopted Tseshaht member and project co-director who has worked in partnership with the Tseshaht First Nation since the early ‘70s. He has been instrumental in connecting scholars, students, and Indigenous youth with Tseshaht history through archaeology to develop scientific capacity to confirm and expand what is often common knowledge amongst Indigenous people.

“New tools and techniques can be useful to expand and refine our collective knowledge about a place,” says St. Claire.

He explains that a value of this study is how the Tseshaht and other First Nations relied on the wool dog for its thick hair that was used for textiles, such as, blankets and other regalia. The wool was considered a status symbol and was worn by high ranking individuals. The importance of the wool dog, however, lessened with the arrival of a cheaper, more plentiful supply of sheep’s wool and other imported textiles.

McKechnie has been working



Hillis preparing collagen samples at the UBC museum of Anthropology. PHOTO: ERIC GUIRY

with St. Claire for over 15 years in Tseshaht territory. McKechnie and his colleagues who study dogs recently published a second related paper, “Domestic Dogs and Wild Canids of the Northwest Coast of North America.” This study looks more broadly at domestic dog husbandry across the Northwest Coast and reveals that southern BC was a hotspot for domestic dogs.

“Domestic dogs appear to be a substantial and enduring part of village life in coastal Indigenous communities over the past 5,000 years but were especially prominent in areas historically associated with the use of small white dogs for wool,” says McKechnie.

“Dogs are especially prominent in sites around the Salish Sea and

western Vancouver Island and for sites where skeletal measurements were taken, small sized ‘woolly’ dogs were proportionally more abundant than larger ‘village’ dogs,” he adds.

For Hillis the time spent with Tseshaht community members during the fieldwork on Keith Island (Kakmakimilh) was a highlight of his UVic education. Using scientific methods to corroborate and extend Indigenous knowledge is something he is continuing in his graduate program. McKechnie and St. Claire and their future field school students are grateful for the ongoing collaboration with Tseshaht First Nation and Parks Canada and the many other First Nations who support archaeological research in their territories.

Raising Draco

Digital app helps families increase physical activity and healthy eating

BY JODY PATERSON

At the intersection of health promotion, eHealth and psychology, a wee virtual dragon named Draco is in tryouts as a new tool in addressing childhood obesity in British Columbia.

University of Victoria researcher Sam Liu is piloting a smartphone app aimed at motivating families and their preteen children to increase their physical activity and eat nutritionally.

Draco is the star of that pilot. Liu, a professor in UVic’s School of Exercise Science, Physical and Health Education, describes Draco as “kind of like a Tamagotchi inspired exercise buddy,” referring to the wildly popular digital pets of 20 years ago.

Draco ups the Tamagotchi game by strategically encouraging young caregivers and their families into physical activity and healthy eating as a means to keep their new pet happy. Draco is one of the digital health tools developed to be piloted with the Generation Health program—a family-based community program to support making family changes to healthy behaviours across BC.

Liu’s Digital Health Lab research caught the eye of the Canadian Institutes of Health Research, which recently awarded UVic researchers nearly \$500,000 to evaluate the Generation Health program and continue exploring how to leverage digital technology to promote health and well-being.

“How do we merge digital technology with

in-person intervention to manage childhood obesity? That’s the question we want to answer,” says Liu. Some 30 per cent of Canadian children and youth in the age range targeted by the project are overweight or obese.

Participants using the Draco app are encouraged to take Draco for walks and give him nutritional foods, all of which keep Draco healthy. The broader goal is to help Draco find his way home, and along the way, increase the physical activity and eating habits of the dragon’s young owners. All participants are given a wearable device that collects data on their activity.

“Based on our user feedback, I was encouraged to see how many kids do engage with Draco. They are excited to do exercises, such as jumping jacks, with Draco,” says Liu.

Any intervention aimed at changing health behaviours must be fun and have buy-in from those being targeted, says Liu. “Sometimes with technology, when you build it, they don’t come.” An initiative has to resonate with people and be adaptable to their lifestyles, says Liu. Efforts have to be tailored right down to the individual user to motivate them to stick with something.

Liu drew on his postdoctoral work in data science and behaviour science in tailoring the digital health programs that he has developed. He had confirmed in earlier research that individuals’ social media data may be used as another data source to understand exercise behaviour—an insight that may be used to translate into a more customizable exercise app to help users feel even more motivated.

Liu’s previous research into healthy levels of smartphone use among children has informed his team’s latest project. That research identified healthy smartphone use patterns and confirmed



Liu with a youth participant during a demonstration of the Draco app. UVIC PHOTO SERVICES

the importance of parent messaging as vital in influencing their children’s behaviours.

Other funders of Liu’s work include BC’s Michael Smith Foundation for Health Research, the Childhood Obesity Foundation, Mitacs and SSHRC.

Obesity rates among Canadian children and youth have been on the rise for 40 years. Obesity in childhood is a predictor of obesity in adulthood, and a risk for physical health problems ranging from heart disease and Type II diabetes to sleep apnea, asthma, and bone and joint problems.

The Generation Health project is delivered in partnership with the Childhood Obesity Founda-

tion, University of Victoria and BC provincial government in Victoria, Burnaby, Kelowna, Campbell River, Penticton, Chilliwack, Prince George, Coquitlam and Surrey. Liu is collaborating with UVic researchers PJ Naylor and Ryan Rhodes.

Changing children’s behaviour simply isn’t possible without their parents’ buy-in, says Liu. Both Draco and Generation Health strive to get the whole family motivated to eat well, be active and participate in the learning.

Liu asks his students to approach their work “with the mentality of a startup—agile, flexible and fast.” That means embracing failure as “the way we learn.”

Student support in a time of uncertainty

BY DOROTHY EGGENBERGER

Begüm Eryilmaz moved to Victoria a year ago to enroll in UVic’s Continuing Studies diploma program in business administration. She was no stranger to living abroad; as an entrepreneur, she’s experienced operating across borders.

Eryilmaz studied architecture in Turkey—where she grew up—and landscape design in Germany. She combined the two fields in 2008 when she founded her own firm, BGM Design. The international company has completed major projects with leading architectural firms in Italy, England, Libya, Azerbaijan and Kazakhstan.

Eryilmaz was traveling for work amidst her studies when the COVID-19 pandemic reached Canada. “I was stuck in Istanbul during the pandemic. My business trip combined with the pandemic and my flu turned into a complete nightmare,” says Eryilmaz.

Doctors hesitated to clear Eryilmaz for travel, but she also had to return to Canada immediately to keep her

student visa. So she reached out to UVic for help.

“The English Language Centre and Continuous Studies teams were tremendously supportive,” she recalls. “They did whatever was necessary to protect my rights, and even gave me information about the scholarships I could receive, in case I needed any financial support during this period. Knowing that I could get financial support and also the support of the team was priceless.”

Eryilmaz is now back in Victoria with her student visa and on track to complete her program.

English Language Centre adapts

Eryilmaz was just one of more than 300 international students at UVic this March. The team at the English Language Centre—part of Continuing Studies—had a lot of questions about how to best support their students’ needs when the COVID-19 pandemic hit Canada. The centre has offered intensive English programs

at UVic since 1970, and is now one of the largest on-campus English schools in Canada. And their students—each uncertain and vulnerable in their own way—needed timely help to change direction.

The small team of eight ELC staff had confidence and trust in each other, having worked together for a long time—some for over 20 years. So even facing a shifting mass of circumstances—a patchwork of new travel restrictions, evolving rules for campus gatherings to share information, and the overall looming uncertainty of how much COVID-19 would turn the world upside-down—they adapted by focusing on their principal shared priority: supporting the needs of the students.

“Our goal is to help the student and everyone buys into that. So we help each other the same way. No one is left alone with a student they can’t help,” says Stefan Grbavec, Director of Finance and Student Services.

The team worked on a case-by-case

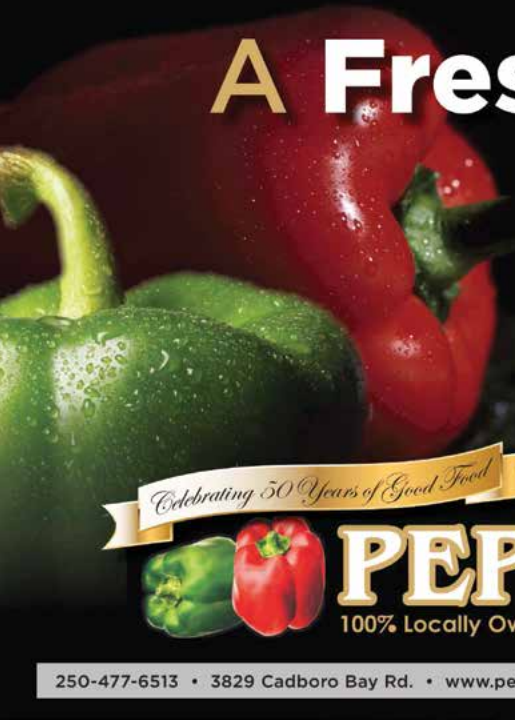


Eryilmaz

basis, helping each student with their unique situation and often coordinating with parents overseas, homestay families, visa agents, and airlines.

“I would like to express my sincere thanks to the whole team, especially Katie McDonald (Admissions & Immigration Assistant) and Jolene Kendzel (Business & Management Program Assistant),” says Eryilmaz, “They were always with me on the other end of the phone and mail every minute.”

Six months into the pandemic, ELC continues to develop and deliver online programs. Their new student-centred, innovative suite of online English programs combine real-time lessons with expert instructors, class chats, interactive activities and assignments. Visit uvic.ca/elc for details.



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Science Venture’s summer online a smashing success

BY ANNE TOLSON

As they catch their breath and look back over the last few months, leaders of UVic’s Science Venture are astonished at how successfully their team was able to transition its hugely popular youth summer camps to a virtual format.

This summer, Science Venture ran 55 week-long camps for more than 1,600 young people—close to the same as last year’s total—at no cost to families.

Science Venture provides high-quality, year-round programming in science, technology, engineering and math (STEM) to thousands of children and youth on Vancouver Island each year, with summer camps, clubs and workshops that are known for their strong emphasis on hands-on, in-person learning.

“On March 12, we suspended our programming and it was hard to imagine then how our summer would end up. I had a lot of apprehension,” recalls David Jackson, acting director of Science Venture, which is supported by UVic’s Faculties of Engineering, Science and Education.

As educational institutions moved primarily online, Science Venture did the same. Staff and camp leaders—who numbered 15 this summer instead of the usual 40—worked quickly to rearrange summer camp formats, adapt content, rewrite job descriptions and hold a trial session in April and May.

Every week starting in mid-June, the camps focused on a different theme, including exploring the great outdoors; comics, cartoons and coding; oceanography; and kinesiology and nutrition. Campers were organized by age into groups of 24, with each group meeting online daily for 30 to 90 minutes, depending on the cohort’s age.

“As time went on, I was struck with how overwhelmingly successful our staff were in what they accomplished,” said Jackson. “We got great

feedback from parents, the kids had a great time, and I think it’s safe to say that we now feel very capable and confident about delivering hands-on STEM experiences for youth in a virtual setting.”

The goal was to inspire and prepare campers to participate in specific activities at home, immediately after each online session, said Taylor Reynolds, acting manager of programs. For example, after a session of Exploring the Great Outdoors, younger campers were asked to go outside to create a home for earthworms, while older campers were challenged with tracking the presence and behaviour of different animals in geographical areas of study.

“We were basically getting them stoked on STEM and providing them with hands-on outdoor activities that they could do themselves at home,” said Reynolds. “Our big goal was to create something that didn’t demand a lot of screen time and to sow the seeds of exploration and inquiry in them.”

The group undertook many other activities, including: providing virtual STEM homework clubs for grades 4 to 12 in May; sending pre-filmed STEM workshops to 63 classrooms across the region; offering special coding camps for girls; and holding five remote camps in partnership with Indigenous partners. (A separate story about Science Venture’s Uu-a-thluk summer camps for the Nu-u-chah-nulth nation is at bit.ly/20-STEM.)

Remarkably, Science Venture was able to provide its 2020 summer programming at no cost to families.

A large part of the funding came from Actua, a national charity that prepares youth to be leaders by engaging them in STEM experiences. Actua provides training, resources and support to its many members, which are located at universities and colleges across Canada.

Other funding came from Canada Summer



The Shehzad Hussaini family, long-time participants in Science Venture, were delighted to discover that this summer’s online camps encouraged participation by parents. PHOTO: TAYLOR REYNOLDS

Jobs, which funded some of the camp leader positions held by UVic students as part of co-ops.

Jackson and Reynolds agree there are many organizations and individuals that helped make Science Venture a success this summer, and some of their highest praise is for parents.

“Parents played such a vital role this summer—the camps this year involved families like never before,” said Reynolds. For example, many younger children needed help logging onto Zoom, some kids needed guidance with activities and sometimes parents had to pick up and return equipment loaned by the program.

“The Science Venture camps not only offered

a robust and an interesting science curriculum, the instructors were engaging and encouraged student participation and active learning,” said one parent, whose two children participated in several camps. “The Science Venture online classes opened up my children’s eyes to different science topics and jobs in this field.”

This fall, Science Venture continues to offer many online clubs and activities, most with a registration fee. The group, which began operating in 1991, looks forward to being able to phase in in-person delivery—when the time is right, in consultation with UVic and based on government regulations.

PHILANTHROPY

Lifetime of giving culminates in an endowed chair

Over the course of her life, mathematician Betty Kennedy contributed to UVic and the community in so many ways that to a non-mathematician they may seem countless. And with the same generosity that characterized her life, in her passing Kennedy bestowed UVic with a \$3.6-million gift.

Through this gift in her will, Kennedy has created a \$3-million endowed chair in mathematical biology, allowing the Faculty of Science to further develop an expertise in this critical intersection of subjects. The remaining \$600,000 will be added to the existing Betty and Gilbert Kennedy entrance scholarships in engineering, law, math and music, which when asked, she said she endowed because, “I love music, I taught mathematics, my husband was a lawyer and my father was an engineer.”

Any additional funds that are received from the gift will go towards creating endowed graduate scholarships within the Department of Mathematics and Statistics, and support existing awards created by Kennedy.

Kennedy may be best known for her contributions as a teacher to hundreds of mathematics and statistics students, first at UBC before coming to UVic where she taught for nearly three decades. “She was a keen mentor to both students and colleagues,” says Professor Emeritus Pauline van den Driessche, Kennedy’s colleague and

lifelong friend. “In addition to supporting and empowering generations of mathematicians and statisticians, her leadership played a pivotal role in starting the university’s much lauded co-op program.”

Kennedy was also an instrumental leader in the early development of UVic and was pivotal in the founding of the schools of nursing, social work, and health and information science. “Betty remained a confidante of many of UVic’s presidents over the years,” says Rob Lipson, former dean of science, who developed a longstanding friendship with Kennedy over the course of his nine-year tenure.

Her contribution to university governance was recognized through an honorary doctorate in 1988, and her many years of teaching were honoured through the 2018 renaming of the Betty and Gilbert Kennedy Math and Stats Assistance Centre, where undergraduate students receive support for coursework.

After retiring in 1983, Kennedy served with numerous community groups including the Friends of the Royal BC Museum, the Family and Children’s Services, the CRD Hospital and Health Planning Commission, the Victoria Rhododendron Society and several others. She was a valued board member, known as much for her sense of humour as for her ability to run an efficient meeting.

“Betty was unique, feisty, funny and kind,” says Rob Lipson. “She lived her life on her own terms. A true original.”

She and her husband spent most of their time at their Galiano cottage, where she was able to more fully nurture her garden. At the same time, Kennedy remained deeply involved with UVic—particularly as a loyal friend and supporter of Finnerty Gardens, as an organizer of the university’s annual plant sale.

It was at her property on Galiano where she started more closely considering the interactions between the subjects of mathematics and statistics and biology, conversing with her lifelong friend van den Driessche.

“At the intersection of mathematics and biology is a critical area of study that allows us to better understand the impact of climate change, pest control and economics,” says van den Driessche. “But perhaps none of these applications is so prominent these days as that this area allows us to understand pandemics.”

van den Driessche is at the centre




Kennedy celebrates her retirement in 1985. UVIC COMMUNICATIONS, COURTESY OF UVIC ARCHIVES.

of a small but prolific research team working in this area, and the university recently created a joint mathematics and biology degree option in response to student interest. The impact of these researchers has been particularly evident over the course of the COVID-19 pandemic, working to understand how the disease spreads and estimate hidden cases.

“An endowed chair in this area will

provide an anchor to mathematical biology at UVic,” says Peter Loock, the dean of science. “Betty Kennedy contributed so much to the university over the course of her life, transforming the lives of those whom she taught, worked with and mentored. With this endowed chair, her contributions will be felt well beyond our community, creating a truly global impact on the scientific community.”

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Uncovering hidden COVID-19 cases

Better estimate of true cases can help fight new outbreaks

BY VIMALA JEEVANANDAM

With detected cases of COVID-19 relatively low on Vancouver Island and the province of BC lauded internationally for its comparative success in handling the global pandemic, it’s no surprise some residents see a reason to celebrate. But British Columbians have been warned that celebrations, and especially large in-person gatherings, continue to be discouraged. While the province has gradually re-opened in recent months, much uncertainty remains given the unpredictable ebb and flow of new cases. This uncertainty is partly due to the unknown number of hidden cases.

“For each case of COVID-19 that we can see and count, there are a number of undetected cases out in our communities,” says Laura Cowen, a University of Victoria statistician. “These unreported cases can kindle new outbreaks as we continue to re-open. We need to be able to estimate the true number of cases to understand the scope and help tell the full story of the pandemic.”

Asymptomatic patients, limitations on testing, and misreporting of symptoms, among other factors, mean that unknown COVID-19 cases are going uncounted. Scientists, including mathematical modellers, need to be able to estimate the detection rate so as to evaluate the risk of future waves and the impact of re-opening.

In research funded by the Michael Smith Foundation for Health Research, and in partnership with Victoria Hospitals Foundation and the Canadian Statistical Sciences Institute, Cowen is leading work to uncover this mystery.

Through a series of interconnected projects, the research aims to evaluate the risk of future COVID-19 waves and investigate strategies for the early detections of such waves.

“The suite of tools the team is creating will support decision-making for the province over the course of the pandemic,” says Cowen. “The tools can be tailored by analysts, planners and leaders for use across a variety of organizations at the local and regional levels, and extrapolated for use in different jurisdictions.”

Drawing from data gathered by Island Health and other government bodies, Cowen’s project uses statistical methods borrowed from wild-life ecology to measure the number of hidden COVID-19 cases. Her team will be comparing information from COVID-19 lab tests to hospital admission data, looking for the amount of overlap between these lists to estimate the total number of cases that are going undetected.

Meanwhile UVic mathematical modeller Junling Ma and Island Health clinical researchers are developing and refining tools based on Cowen’s findings.

Ma is using mathematical modelling to better understand the characteristics of outbreaks as the province continues to restart and rules are relaxed. He is building models that focus on scenarios where people are in close contact, such as within households and in long-term care facilities.

“Looking at these close contact situations will allow us to evaluate testing strategies that can effectively and quickly identify outbreaks and potential future waves,” says Ma.

To create targeted prevention strategies, the research team is also working on enhancing an existing Island Health tracing tool. The enhanced tool will help identify locations where COVID-19



Cowen on campus, August 2020. PHOTO: UVIC PHOTO SERVICES

infection at Island Health healthcare or service locations may inadvertently be transmitted to vulnerable populations, such as seniors or those experiencing homelessness.

Mathematical biology is a burgeoning interdisciplinary field that can support researchers and policymakers in making informed decisions. UVic has a small but prolific research team interested in this area of study, and recently created a joint mathematics and biology degree option in response to student interest.

The collaborative research project combines UVic’s top ranking mathematical research with Island Health and Victoria Hospitals Foundation’s health service delivery expertise and data records.

Cowen’s expertise is in studying animal demographics, and the methods that she is adapting are ones she most often applies in fisheries research to measure population size. “In studying wildlife and COVID-19, you are looking at a smaller subset of a population to better understand what is going on in a much larger group,” says she says.

As part of collaborations to better understand at-risk groups during the pandemic, Cowen is currently using modelling methods to estimate the homeless population of Vancouver Island, and has previously applied related methodologies to estimate the population size and needle sharing behaviour of people who use injection drugs in Victoria.

PRESIDENT’S CHAIR

CONTINUED FROM P. 1

“It’s difficult for us, being asked to put our names forward for something,” she says. “I know my students feel that discomfort, too, but they’re also going to need to put their names forward, for scholarships and other opportunities.”

“I tell them that when you put your name forward, you bring attention to the issue you care about. You draw the light to it. That’s a powerful thing. If I can be of service in bringing Indigenous language revitalization to more people’s attention by putting myself forward, then that’s OK.”

One mind, one people

McIvor’s multifaceted work to revive Indigenous languages has taken many forms, from researching adult language learning programs in Indigenous communities to co-creating an open-source language assessment tool.

She currently co-leads a \$2.5 million national project to support and expand language revitalization efforts across Canada. **NETOLNEW**—“one mind, one people” in the **SENĆOŦEN** language—is a SSHRC-funded collaboration with nine Indigenous partners in six provinces.

“This work is very near and dear to my heart, very personal. That’s the case for virtually everyone who works in Indigenous language revitalization,” says McIvor, who is maskiko-nehiyaw (Swampy Cree) and Scottish-Canadian.

All Canadians benefit from the continuation and celebration of Indigenous languages as the country works to reconcile its difficult and troubled history with Indigenous peoples, McIvor adds.

“Indigenous languages are filled with beauty, like great works of art, and hold much wisdom through philosophical views, cultural values and ways of living.”



A Cree-language COVID symptom checklist, as used by Alberta Health Services.

Shifting the narrative

McIvor recalls that in her early years of study, the public discourse around Indigenous languages was mostly around mourning for what was being lost. Media coverage at that time tended to be limited to occasional stories marking the death of an elder who had been the last sole speaker of a particular language. “The narrative in the 1990s was all about dying languages,” she says.

These days, the work comes from a much more hopeful perspective.

“We’re looking at where language revitalization is working,” McIvor says, “and the impact it’s having on people’s lives. We’re not ignoring the concerns about language speakers passing on, because that’s still happening. But even when it does, you can still look at the legacy of the person, the young people they connected to and influence they had before they died. It really is a pedagogy of hope.”

A growing government commitment to language revitalization is evident at both the federal and provincial levels, adds McIvor. In 2018, the BC government allocated \$50 million over three years to help revitalize Indigenous languages, a significant jump in spending over the \$1 million a year that had been typical to that point, she says.

Since 2016, the federal government has increased its spending as well, and last year introduced the Indigenous

Languages Act. The act envisages a collaborative partnership with Indigenous peoples to reclaim, revitalize, maintain and strengthen Indigenous languages in Canada.

Spirit of collaboration

A collaborative partnership on all fronts will be essential to success, says McIvor. Language revitalization has to be led by Indigenous peoples, “but we can’t do it alone.”

“We didn’t get into this on our own, and we won’t get out of it on our own, either,” she says. “We need people with skills to lend to this work. We need funding. We absolutely need allies.”

The COVID pandemic is having its own surprising impact on language revitalization, as McIvor and her research team discovered in a short study this summer.

Switching to online platforms wasn’t easy for language learning activities that were almost always done in person, says McIvor. But at the same time, that switch brought in more learners from distant locations who were suddenly able to access language classes for the first time.

As the pandemic shook people into taking stock of what mattered most in their lives, many reached to their culture to ground themselves. She adds, “What we have noticed is more people turning to our languages in this time of crisis. There is comfort there.”

Indigenous languages finding a way forward during COVID

BY LAUREN FROST

In the face of a global pandemic, language revitalization continues to thrive in Indigenous communities across Canada and the world, according to new research by Indigenous education scholar, Onowa McIvor.

In June, McIvor received COVID-19 Emergency Research Funding from the Faculty of Education to conduct a short-term study of the effects of COVID-19 on Indigenous language revitalization work.

Over the summer, a small research team sought to understand how language teachers and learners responded to the pandemic through use of an online survey and analysis of language revitalization social media pages. Early findings show that many communities have successfully adapted in ways that allowed for the continuation of language revitalization. The study also illustrates the vital role that language is playing in keeping communities safe and informed during a time of crisis.

McIvor discussed these findings as part of a Sept. 23 panel focused on accelerating community resilience during the pandemic.

Virtual language learning

“The pandemic crisis that hit in March of 2020 had the potential to silence language work and reduce it to non-critical activity, once again,” McIvor says. “But, what Indigenous Peoples do and have always done in the face of danger and adversity—exercise collective strength and agility.”

According to the team’s survey, when the pandemic put a pause on face-to-face language revitalization work, nearly 60 per cent shifted their work online.

“Indigenous communities quickly

began to create digital resources in their own languages to teach community members about the new virus as well as how to protect themselves,” says McIvor. People also learned how to read public health warnings in their own languages, learned the words for COVID-19 symptoms, and shared them on social media.

This shift to virtual language learning may also have lasting benefits for language revitalization work. Their study shows greater accessibility to new online classes from those who were previously unable to participate in face-to-face learning due to geographic location.

Finding the way forward, together

From McIvor’s perspective, collaboration across national and global Indigenous communities has always been at the heart of the Indigenous language revitalization movement, and the sharing of knowledge and experience will continue to play a large role in sustaining the movement during the pandemic. The team’s research will be used to develop resources that draw on the solutions and innovations of diverse Indigenous language revitalization communities. These resources will then be shared on an open-access website for Indigenous communities, organizations, and individuals seeking to continue their language work during the pandemic and beyond.

“Using these available tools, platforms, and opportunities, the work can safely propel forward and not allow the precious language work to fall away in this time of crisis,” says McIvor. “Indigenous communities’ responses to the pandemic show that, just like the water, our languages always find a way forward.”