Clean, safe drinking water

Improving water treatment systems for people and planetary health

BY RICHARD DAL MONTE

Clean water is a global concern. Ensuring access to clean water for everyone on the planet increasingly requires sophisticated systems to make less-than-pristine water potable, or at least usable.

A UVic professor and her research partners were recently awarded a $300,000 NSERC grant to ensure one popular system—reverse osmosis membrane technology (ROMT)—stays clean, safe and unclugged.

Heather Buckley, an associate professor of civil engineering and chemistry at UVic, explains that this type of filtration involves forcing water through a thin membrane that filters out contaminants or, in the case of ocean water, even salt. The challenge with such a system, she notes, is that microbes can grow on the surface of the membrane and fill its pores, causing the system to be less efficient—requiring more energy to push water through.

That’s called biofouling, and chlorine is typically used to kill the microbes that cause it. But Buckley says that comes with negative side-effects, forming harmful disinfection byproducts and damaging the RO membrane.

Buckley and the UVic Green Safe Water Lab are partnering with BI Pure Water—a Surrey, BC company that designs, manufactures and tests waste and water treatment systems—to develop sustainable, economical, safe chemicals that prevent the negative effects of biofouling in ROMT systems.

The goal is to help federal, provincial and municipal governments, First Nations communities, industry and remote work sites provide safe, reliable, sustainable water supply using ROMT.

While Buckley emphasizes that chlorination remains an effective water treatment system, there is still room for further innovation.

SEE CLEAN, SAFE WATER, P.3

INTERNATIONAL HOLOCAUST DAY OF REMEMBRANCE

Puzzles from the Holocaust

BY PHILIP COX

The details were sparse, but the crux of the story was clear: Lea Perla Blumenfeld had been shot and killed by Nazis at a forced labour camp during the Holocaust—and one of her sons was forced to bury her.

Almost 80 years later, this was the story told to Lea Perla’s great-granddaughter, Lisa Abram, the communications officer for UVic Libraries, by an older cousin during the week of mourning following Abram’s father’s death in late 2021.

As a third-generation Jewish Romanian-Canadian, Abram had been led by her parents to believe that no one on either side of her family was killed in the Holocaust. How had she never heard of this before, she wondered in a state of disbelief. And who was the son in the story?

Was it not for the fact that Abram was working with one of the university’s leading Holocaust Studies experts at the time, this may have been the end of the story, rather than the beginning. As it turned out, she was exactly the right person to solve these puzzles from the Holocaust, working in exactly the right place.

“I’ve always been curious,” says Abram, “but I never thought to do puzzles as a kid. My dad would often hide one of the pieces from me—maybe to keep me curious and not give up when there was a piece missing. I think that gave me the interest and skill set to put all the pieces of this puzzle together.

Early efforts

Since childhood, Abram had wondered vaguely about her great-grandmother on her father’s side, whose painted portrait had hung on her grandmother’s apartment wall for decades. “It was the only image my grandmother had of her mother when she immigrated from Romania,” Abram recalls.

The bits and pieces of her father’s family history that she had picked up in her youth were enough to satisfy her then, but as an adult coming of age just prior to the advent of the internet, she gradually realized that her understanding of her ancestry was partial at best.

A turning point in her search almost came around 2016 when Abram’s nephew asked about their family history, which prompted her to seek out information about the ancestral hometown online. The most promising result was an old memoir titled My Dear Shtetl Mihaileni that had been published just before the turn of the millennium.

Clearly a labour of love for a time gone by, the first-person narration walked its readers through the main street of the small shtetl (Yiddish for “town”), recall
Planning ahead for new mixed-use university district

UVic is planning for the development of a new mixed-use university district including housing and supporting commercial uses at the Ian Stewart Complex (1964 Gordon Head Road) and Campus Storage Facility (1957 Gordon Head Road).

The goals of the project are:
- To establish a potential mixed-use university district that provides new housing opportunities to support a more vibrant campus and surrounding area.
- To ensure a financially sustainable model for the university district that recognizes the long-term economic potential to support university priorities.
- New development will be aligned with the university’s strategic priorities, generate revenue through housing and commercial uses and respond to pressing regional housing shortages.
- Other academic institutions in British Columbia have successfully built university communities benefiting.

UVic is celebrating student stories for UN International Day of Women and Girls in Science, with role models such as geography grad student Lauren Man (pictured above in the Southern Pacific Ocean) inspiring others to make a difference in the fields of science, technology, engineering and math. Visit uvic.ca/news on Feb. 11 to find out more.

$2.5 million gift supports research on land, oceans and stars

BY SARAH TARNOPOLSKY

An unexpected and substantial legacy gift from the estate of renowned Calgarian and philanthropist Margaret (Marmie) Hess has provided graduate and UVic post-doctoral researchers across the sciences the gift created a $2 million endowment to fund two graduate student awards, with the remaining $500,000 funding research grants for post-doctoral fellows.

Marmie Hess was a great art lover, collector, philanthropist and volunteer throughout her long life. After she passed away in 2016, her legacy continued through the distribution of her substantial estate, which included bequests of important collections of art to the University of Lethbridge and University of British Columbia’s Museum of Anthropology. The generous $2.5 million gift to support research at UVic reflects Hess’s lesser-known personal interest in earth and ocean sciences.

With no prior connection to UVic, Hess’s gift was largely based on UVic’s reputation for innovative and impactful research in marine and land ecosystems and climate action. UVic’s research strengths in these areas contributed to it ranking as one of the top universities in the world for advancing and living up to the commitments of the United Nations Sustainable Development Goals (SDGs), particularly in the SDGs of climate change, life below water and land management.

“We’re so grateful to Marmie Hess and the executors of her will for allowing this generous gift,” says Lisa Kalynchuk, vice-president of research and innovation. “It enhances our ability to recruit and retain bright stars in a competitive environment and provides a significant investment in post-doctoral talent to advance research in grand-scaled research science and global challenges such as climate change.”

Five research grants awarded

In 2022, the Dr. Margaret “Marmie” Perkins Hess Grad Fellowships in Earth, Ocean, Astronomy and Environmental Sciences were awarded to five post-doctoral fellows joining UVic research programs related to climate change, seismology, astronomy, sustainability and renewable energy. The post-doctoral fellows funded were Jolie Lam (earth and ocean sciences), Alexandre Mieloveanu (civil engineering), Sarah Yue Oliva (earth and ocean sciences) and Matthew Ramirez (biology).

Investment in early career researchers to build the capacity of the next generation is a key outcome identified in the university’s research and creative works strategy Astraion 2030. “Post-doctoral fellows bring advanced expertise to our research teams and have the experience and time to dive deeply into research questions. A philanthropic investment in post-doctoral fellows is a win-win for UVic researchers and our larger community and directly advances our work in creating a better world through curiosity, engagement, and innovation,” says Sarah Kalynchuk.

First two grad fellows grateful for opportunity

The first two recipients of the Dr. Margaret “Marmie” Perkins Hess Grad Fellowships in Earth, Ocean, Astronomy and Environmental Sciences were Shoshannah Byrne-Mamahit and Daisy Buzzoni. Byrne-Mamahit says the fellowship allowed her to finish her master’s degree debt-free and launch directly into her PhD in physics and astronomy in January 2023. Daisy Buzzoni is working towards her PhD in UVic researcher Julia Bauman’s marine ecosystem and climate ecology lab. Buzzoni’s research addresses coral’s resistance and resilience to mass bleaching events (the largest global cause of coral mortality) caused by marine heatwaves.

“I am extremely grateful to be one of the first recipients of the Dr. Marmie Perkins Hess Fellowship—the legacy of an intrepid explorer and a trailblazer for female higher education in Canada,” says Buzzoni. “This is an especially meaningful award for me as someone who is both an immigrant to Canada, trying to familiarise myself with Canadian history and culture, and a passionate advocate for the advancement of women in STEM.”

More about Marmie Hess

Born in Calgary in 1916, Margaret Hess studied at the universities of Alberta, Toronto and Iowa. She worked as an art history teacher and an adjunct professor at the University of Alberta and University of Calgary. She was made an Officer of the Order of Canada in 1993 for her contributions to the body of knowledge of Canadian Indigenous art and to community development.
CISIR researchers inform new Canadian alcohol guidance

BY AMANDA FARELL-LOW

Three researchers at UVic’s Canadian Institute for Substance Use Research (cinsur)—director Tim Naimi and scientists Adam Sherk and Tim Stockwell—were part of an expert panel that helped create the new Canadian Guidance on Alcohol and Health. The guidance, released by the Canadian Centre on Substance Use and Addiction January 17, reviewed the latest evidence on alcohol’s health harms. The 22-member expert panel concluded that overall, less alcohol is better for your health, and presented a continuum of risk based on how much alcohol you’re consuming.

The new guidance also acknowledges that not all drinks are created equal. For instance, a beer has far more calories than a glass of wine, and a can of canola oil—produced using sustainable practices—could be 50 times more effective in preventing biofilm formation than the traditional use of silver and gold nanoparticles.

In addition to informing people of the risks associated with alcohol consumption, the new guidance points to potential policy changes that could help reduce consumption, including stricter marketing and advertising measures, increased drinking and driving awareness, and labelling alcohol containers with health warnings, standard drink information and the new guidance.

“Alcohol is a serious public health problem that affects all levels of Canadian society. The new guidance is a step towards reducing the harm caused by alcohol,” says Naimi.

The new Canadian Guidance on Alcohol and Health has garnered considerable media attention both here in Canada and abroad, with extensive coverage on CBC (including the National and FrontRunner), the New York Times, the Guardian and many other outlets.

CLEAN, SAFE WATER
CONTINUED FROM P. 1

Mathematical ecologist returns to UVic as Kennedy Chair

BY SARA TARNOPOLSKY

From predicting the spread of cov

ir to protecting polar bears in the

ozone layer, mathematics is coming out of

The University of Victoria (UVic) has created the new榻榻米 indicated that mathematics is coming out of

The Ring February 2023 Page 3
2022 REACH AWARDS
RECOGNIZING RESEARCH & TEACHING EXCELLENCE

“These awards celebrate faculty and graduate students who are dedicated to excellence in research, teaching and creative activity. This year’s distinguished honourees are game changers in their fields— they are leaders creating true and lasting impact through their innovative learning experiences for our students, and their research empowers and supports change in our community and beyond. Congratulations to the award recipients and nominees and thank you for your passion and commitment.”

—UVic President and Vice-Chancellor Kevin Hall, PhD

HARRY HICKMAN ALUMNI AWARD FOR EXCELLENCE IN TEACHING AND EDUCATIONAL LEADERSHIP

Dr. Rebecca Gagan
Professor | Department of English
Rebecca Gagan is an innovative and compassionate instructor, who approaches teaching as a love of life. Students value her teaching practices affect their holistic learning experience and foster a sense of community. Rebecca excels at creating interdisciplinary teaching and engaging students in critical thinking. She has been a strong advocate for the use of technology in the classroom, incorporating virtual reality and interactive learning environments to enhance student learning.

GILIAN SHERWIN ALUMNI AWARD FOR EXCELLENCE IN TEACHING

Dr. Michael Reed
Sessional Lecturer | Medieval Studies Program
Michael Reed is a distinguished scholar who contributes to multiple degree programs across faculties at UVic. He creates safe and engaging learning spaces, fostering a deep understanding of medieval history and culture. His passion and dedication to his students are evident in his teaching style, which combines historical knowledge with interactive and engaging discussions.

AWARD FOR EXCELLENCE IN GRADUATE STUDENT SUPERVISION AND MENTORSHIP

Dr. Fraser Holthaus
Professor | Department of Chemistry
Fraser Holthaus is an innovative and inspirational academic who has supervised numerous graduate students. His research focuses on the development of new materials for energy applications, and his students benefit from his mentorship and support.

SILVER MEDAL FOR EXCELLENCE IN RESEARCH

Dr. Marie Éve Tremblay
Associate Professor | Division of Medical Studies
Marie Éve Tremblay has sparked a paradigm shift in what we know and how we look at the healthy brain. She has revealed that these immune cells are crucial for brain development, activity and plasticity, as well as learning, memory, behaviour and cognition. Her research has expanded our understanding of brain function and illness.

AWARD FOR EXCELLENCE IN KNOWLEDGE MOBILIZATION

Dr. Janine Jenstad
Professor | Department of English
Janine Jenstad's Map of Early Modern London is a prominent example of creativity, vision, reach and commitment to knowledge mobilization and, thus, impact. The map fuses ideas, data and maps to think about Shakespeare’s London as a place of physical, social, emotional and economic connections, like our own cities. No other project had done this before, and no other project does it as well. Two hundred thousand visitors from nearly 140 countries visit 1.2 million pages every year. Janine has set the standard for research that art at the same time creates a world that goes to stake for students, teachers, researchers, geologists, writers and historians.

AWARD FOR EXCELLENCE IN CREATIVITY AND ARTISTIC EXPRESSION

Dr. Chase Joynt
Assistant Professor | Department of Gender Studies
Chase Joynt, one of the most outstanding artist-scholars working on issues of trans representation today, is mobilizing documentary and trans scholarship. His films, including his recently screened Young, Awesomely BlondRocketeers, gender and feminist studies, trans studies and queer theory, have been shown at many film and art festivals, including Cannes and Sundance. His work is consistently received with acclaim. His editing and curation have helped to bring attention to other critical subjects, including gender and trans studies.

ANDY FARQHARSON TEACHING EXCELLENCE AWARDS FOR GRADUATE STUDENTS

Claude Beaupré
PhD student | Department of Political Science
Claude Beaupré is committed to student-centred learning and is highly creative about different instructional strategies. He has designed and delivered a unique capstone course, which has been highly successful. Claude's teaching is innovative and engaging, and he is known for his dedication to student success.

PROVOST’S ADVOCACY AND ACTIVISM AWARDS IN ETHNICITY, DIVERSITY AND INCLUSION

Hannah Brown
PhD student | Department of Anthropology
Hannah Brown integrates the scholarship of teaching and learning into her work with students through continuous feedback mechanisms. A graduate of the Learning and Teaching in Higher Education graduate certificate (2021), she helped to create an experiential learning experience as a co-creator of a learning experience that was recognized at the national level.

DIVERSITY AND INCLUSION

Dr. Marilou Gagnon
Associate Professor | Indigenous Studies
Marilou Gagnon is known nationally and internationally for her advocacy and ability to bring nurses together to advocate for policies that promote health, equity, and quality of life. Her work has been celebrated through several awards for her advocacy and activism in HIV and LGBTQ+ communities. She has been shown at venues across Canada, and her research and community engagement have been recognized at national and international levels.

EXPRESSION

Shervin Shamsi Dakshbinah
PhD student | Department of Civil Engineering
Shervin Shamsi Dakshbinah is passionate, approachable and encouraging in his interactions with students and colleagues. He has a methodical style of instruction, breaking down concepts into smaller examples and using engaging active experiments. He continues to increase his knowledge as an instructor, and he is committed to fostering a diverse and inclusive learning environment.

The Reach Awards will be celebrated at an in-person ceremony on Feb. 16, hosted by President Kevin Hall, VP Research and Innovation Lisa Kalynchuk and Acting Deputy Provost Helga Hofland. Recipients of the Provost’s Advocacy and Activism Awards will also be honoured. Event is by invitation only; please contact RSV@uvic.ca for details. The event will also be livestreamed at tiny.cc/23-reach.
1950s, when he was still a child.

Throughout the week after Abram's father's death brought me back to that question.

Pursuing that lead led Abram to the Ontario Jewish Archive, where his father had donated a small trove of personal effects. Several photos stood there: a story showing Abram's grandmother standing at an airport with a man and a woman outside an aeroplane—Lea Perla's youngest son, Moshe Itzak, and his wife Seindla in Israel. This was a complete shock to Abram. She had grown up with her grandmother and heard stories about two brothers—Sam in Canada and Nathan in Israel, both of whom she had met. But here was a third, who also lived in Israel, about whom Lisa had never heard.

Why had Abram never heard of this younger brother? Was this the missing son of Lea Perla who had been forced to bury her in the forced labour camp? 

Expert advice

Coincidentally, around this time, Abram began working with internationally-renowned Holocaust historian Charlotte Schallié on a campaign for UVic Libraries.

Schallié was at the time in mid-production of But I Live: Three Stories of Child Survivors of the Holocaust, an award-winning collection of graphic novels co-created by Holocaust survivor and accomplished graphic artists that was published in 2022 by University of Toronto Press.

She had been working on Lisa's research and immediately wanted to support it, said Schallié. "I warned her, though, that unearthing such violent histories risks intergenerational trauma for the descendants of survivors. Breaking a wall of silence within one's family can also prompt unexpected feelings and expressions of anger and resentment, which can be difficult to navigate."

Along with this advice, Schallié offered to connect Abram with a network of people who were formally or informally connected to UVic's Holocaust Studies program and who might be able to help with her search. Among them was David Schaffer, a Holocaust survivor of Romanian descent whose story is shared in the But I Live collection. Schallié also recommended a number of resources that might assist Abram to begin to outline a family story that she could not shake. With half her imagination replaying scenes from Mihaileni, she could not help but wonder how her family had ended up in Mihaileni.

Imagine her shock, then, when she began reading an advanced copy of Schallié's edited collection, But I Live, and found fragments of exactly that story told in the first-person by David Schaffer, whose contact information Schallié had provided to Abram some years before.

"It's an amazing connection that Charlotte [Schallié] made for me. David was from Romania and had been a member of the Romanian Jewish resistance, who had transferred from Mihaileni to another camp in the nearby city of Târgovişte during the war. I was interested in learning about the family's history and, after a long discussion, I asked if he would be interested in telling me more about his family."

During their conversation, Schaffer also referred Abram to his own path across Romania during the Holocaust, which aligned at many points with the route on which her family had been taken, helping to visualize their harrowing story.

"Talking with David was like touching the past. From the story I was able to imagine the transportation of my great-grandmother, Moshe and Seindla to the forced labour camp. In a lot of ways, his story is their story, because almost all the Jews were taken on the same train they were all marched across these same vast distances," Abram recounts with rising intensity. "I told David, 'I wish I could see through your eyes. I wish I could see what you saw when you were there, terrible as it was.""

Connections for the future

Today, Lisa Abram's family history project spans 32 pages of text, a plethora of photos, news articles and archived documents about family members she had never known before, and the family tree with several branches and more than 100 names newly added.

Sometimes she daydreams about going back to her childhood home, walking up to her father, and handing him her files. "Here, Dad," she wants to say, "I've spent years working on a massive file on our family's history that I've built. I want you to take care of this story that you would have been writing about yourself." 

Among the relatives with whom Abram shared her findings, none among her father's living cousins and their children had known about their connection to the Holocaust and the forced labour camps it had caused within their family. Many were stunned by how much of this history had been withheld from them, but not all were interested in learning more.

One newly-found cousin in Israel in particular—a descendant of Moshe Itzak—asked why Lisa was interested in those terrible things that happened in the past," Abram says. "We're in the future now, he said. I told him that I need to understand my past to understand my family's history and who I am. Connecting with him was the future for me."

"Besides that, I just want to honour the story of my great-grandmother, Lea Perla Blumenfeld. I just want to keep her name alive."

This story has been edited and abridged.

To read more, visit tiny.cc/23-puzzle
Scholar of Islamic art practices headed to England

AHVS chair the only academic in Canada selected for British Academy Global Professorship

BY JOHN THRELFALL

Art History and Visual Studies chair Marcus Milwright has been named a recipient of the British Academy’s 2022 Global Professorships. This four-year research professorship—valued at £898,000 (about $1.48 million CDN)—will begin in February 2023 and will see him working at the Department of History of Art at England’s University of York through to 2027.

One of only eight professors selected for this prestigious international initiative and the only scholar in Canada—his research project is titled Making Meaning: Craft Practices and the Process of Change in Islamic Art. “It’s based on the idea that we understand objects when we understand the processes of making them, and the people responsible for doing that—how they developed their skills, the environments they work in,” Milwright explains. “It’s not simply a question of how something gets made: it’s through the process of making that we understand the meanings those objects have in their societies.”

Exploring new partnerships

In addition to working on his Making Meaning project, Milwright will also seek to establish new pathways for UVic students and faculty to undertake exchanges and research opportunities with their many clients sailing — just ask any UVic grad.

Maria McVey is a UVic grad who works with local producers and is committed to bringing you new local products every week.

As one of the few True Independents left, Pepper’s has the ability to form close ties with local producers and are committed to bringing you new local products every week.

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Truly Independent. Truly Local.
There's a lot of disinformation happening in our society right now, both here in North America and at home in the Philippines, my own country," says Mathew, who is directing Vinegar Tom as his thesis dissertation. "I'd like to use theatre to combat that. When I was reading the play, I kept asking myself: how can this be so relevant to our society today? Who benefits from inequality? As a theatre artist, it became a calling for me—I needed to do something.”

Running Feb. 16-25 at UVic's Phoenix Theatre, Vinegar Tom has lost none of its raw power over the years; indeed, it seems eerily present today given the recent spate of right wing uprisings, the overturning of Roe v. Wade in the US, and an ongoing frenzy of public accusations on social media. "Churchill depicts not only gender inequality and misogyny in this play, but also how ordinary people and those in power are coerced to fabricate baseless stories against the powerless, the innocent and the marginalized," he says. "That's powerful material to move forward with.”

International connection The latest Filipino graduate student to select UVic's theatre department for their master's degree (alongside the recent likes of Dennis Gupta and Chari Arapsaechaga), Mathew has directed 40 shows over the years and, as an actor, has appeared in nearly 50 more. It was his participation in a local production directed by then-Phoe- nix Theatre PhD candidate and friend Dennis Gupta that brought Mathew to Victoria. “That was my first time in North America and I got attracted to the people here—their respect for each other, for the First Nations—as well as the weather,” he laughs. “When I learned I could do this as a cultural worker and an international student, I decided to take the chance.”

A cautionary tale Made possible in part by funding from the Philippines National Commission for Culture and the Arts, Vinegar Tom also sees the interdisciplinary participation of School of Music undergraduates Naomi Harris (as music director) and Naomi Sehn (music arranger) who help bring the play's musical component to life. Ultimately, says Mathew, Vinegar Tom should be seen more as a cautionary tale than a historical allegory. "Misogyny, conspiracy theories, the ruling patriarchal powers... these are all still as much a part of us today as they were for people in the 17th century," he says. "But what can we learn from the past? Have we learned from the past? As a global society, I'm not really sure."