Trek 3

The Magazine of the University of British Columbia | Winter 2002

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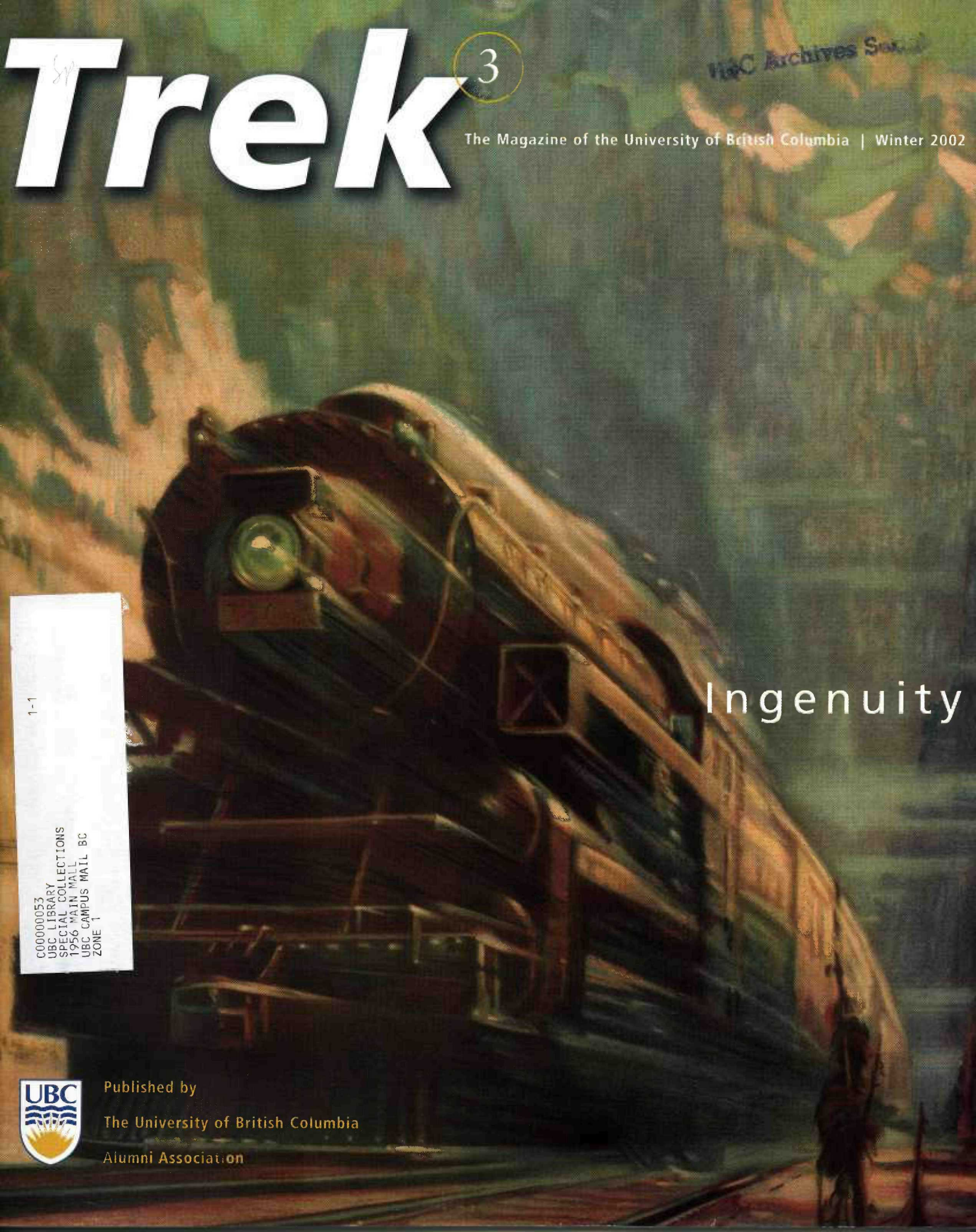

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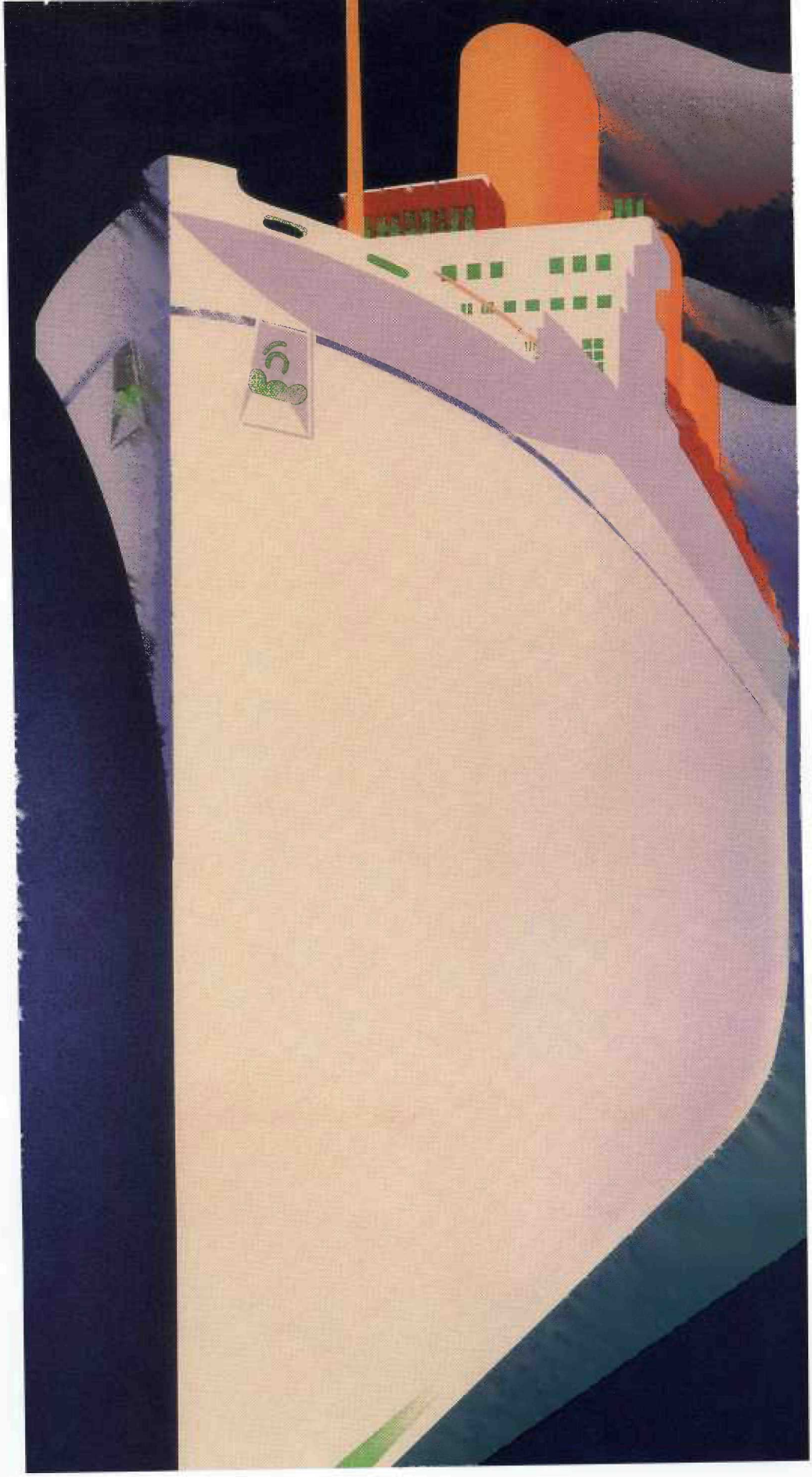

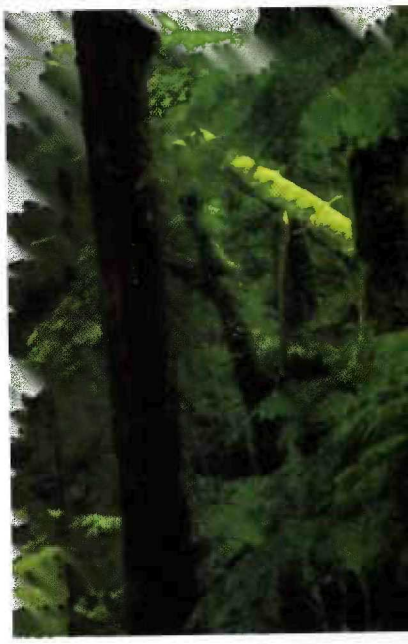

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Trek WINTER 2002

The Magazine of the University of British Columbia

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ingenuity and innovation

Innovations start with questions. An infant plopped down in front of his first pile of puréed peas might ask himself, "How do I get that stuff from there to here?" After a few experiments — pushing his face in and sucking; swinging his arms and knocking the bowl over the edge — he grabs a handful and squishes it on his head and then in his mouth. "Hey!" he says. "That's it!"

Our in-born tendency to question our surroundings and find work-arounds for problems have resulted in life-altering inventions, all the way from corned beef to computers. Ingenuity and innovation are requirements of the process. Both are hallmarks of this university, and both are featured in this issue of *Trek*:

- Hamish Kimmins ("The Land Ethic," page 24) talks about the process of change in the forest industry and forestry education, and how the questions of sustainability, proper forest use and the needs of people can be addressed. His forest modeling software is an innovation that supplies brand-new answers.
- In the late 1900s, Rudolph Diesel ("Saving Diesel," page 16) wanted to find a way to create cheap power when he came upon his idea for the engine that bears his name. A century later, UBC's Phil Hill wanted to save that venerable engine when he set about finding a way to make it work more cleanly and efficiently.
- "Islam and the Art of Beautiful Writing," page 30, reports on an exhibit at the Museum of Anthropology that shows how the Islamic culture evolved a way of expressing the mysteries of spirituality and life without using the human form. Calligraphy answers the question with grace and elegance.

Universities are sometimes criticized for being insular and self-absorbed. Faculty members, some say, are concerned only with their own aggrandizement. Thus the old joke: "The reason university politics are so petty is because the stakes are so small."

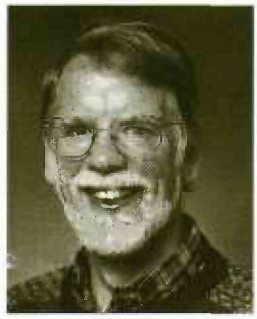
Perhaps. But no other institution in our society is so able to ask and answer so many important questions. Nowhere else can someone sit him or herself down in front of a pile of puréed peas and start experimenting.

— **Christopher Petty**, *Editor*.

contributors

Richard Banner ("Saving Diesel") graduated from UBC's School of Law in 1978, and has worked as an environmental and social activist in BC. He lives in Vancouver and works as a freelance writer and editor, researching and developing education materials, public information pieces and corporate bumpf.

Silver Donald Cameron, BA'60, MA, PhD ("Bowser's Brain") is the award-winning author of 15 books, many TV and radio scripts, and countless magazine articles. He currently writes a weekly column for the Halifax Sunday Herald. Dr. Cameron was also the first dean of the School of Community Studies at the University College of Cape Breton, and has served as writer-in-residence at three universities.



Hamish Kimmins ("The Land Ethic") is a professor in Forest Science and Forest Ecology in the Faculty of Forestry. He is also Canada Research Chair and director of International Programs. His main research interests are forest ecology, the sustainability of managed forests and modeling forest systems. He has published numerous papers and two books. *Forest Ecology, a Basis for Sustainable Forest Management*, is a standard text.

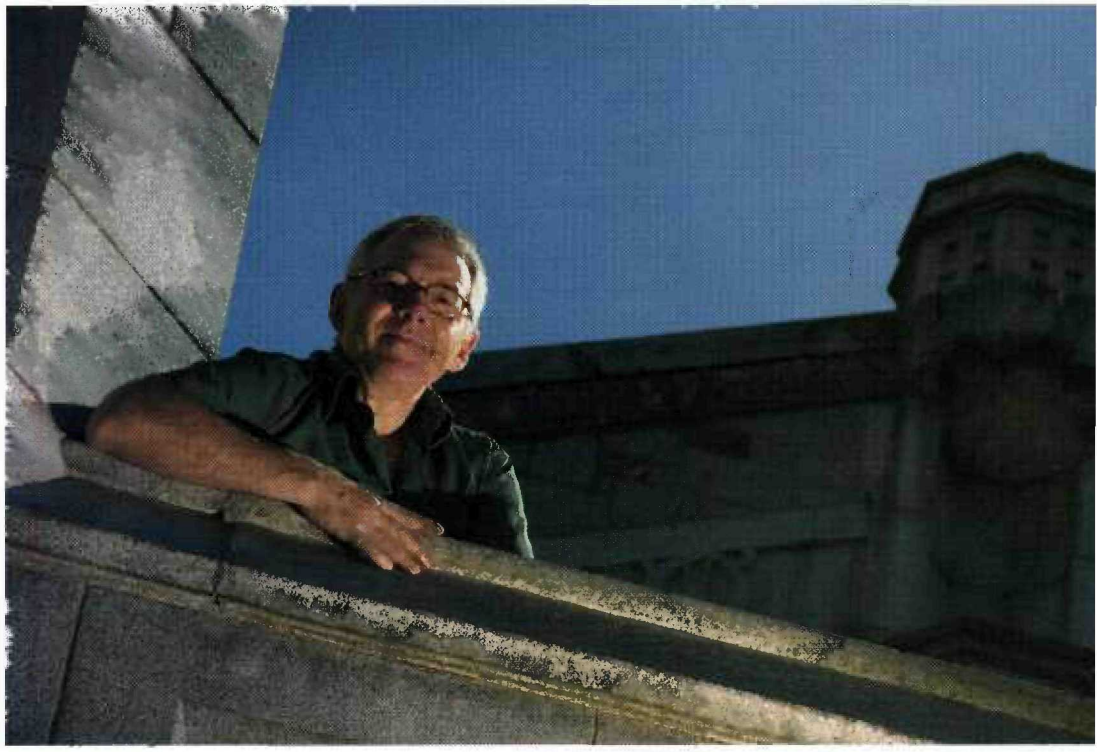
Patrick Lewis ("Life in Translation") is a writer and editor living and working in Vancouver. A sometimes contributor to Trek and other publications, most of Patrick's recent writing has been in the areas of social policy research and analysis.

Elizabeth Negrave, MA'96 ("Islam and the Art of Beautiful Writing") taught technical writing at UBC for several years. She currently works as a Business Development Officer in the Faculty of Applied Science, writing and editing grant proposals.

Teaching matters

A UBC Zoology professor has been chosen from 16 nominees nationwide as Canadian Professor of the Year. Lee Gass was honoured by the Canadian Council for the Advancement of Education (CCAE) and the Council for the Advancement and Support of Education (CASE) for his dedication to undergraduate education and his contributions to the community, UBC and the teaching profession. Past recognition of his teaching include a Killam Teaching prize and a 3M Teaching fellowship in 1999. He is currently director of the Integrated Science Program.

Gass is pleased to receive the award since he feels it emphasizes the importance of teaching and gives it the recognition it deserves.



Zoology Professor Lee Gass is this year's CCAE/CASE professor of the year. CCAE/CASE professors are selected for their superior teaching and community involvement.

New course shakes things up

Despite our recent preoccupation with human-orchestrated calamity, the threat of natural disaster remains an everyday reality. According to Natural Resources Canada, the Pacific Coast is Canada's most earthquake-prone area, with more than 100 earthquakes of magnitude five or over recorded in the offshore region west of Vancouver Island in the past 70 years.

This fall, instructors from the Earth and Ocean Sciences Department (EOSC) at UBC offered an appropriate new first-year survey course called *The Catastrophic Earth — Natural Disasters*.

The course is offered in five different sections: *The Shaking Earth* (earthquakes, volcanoes); *The Turbulent Atmosphere* (hurricanes, thunderstorms, tornadoes); *The Unstable Ground* (landslides, mud flows, floods); *The Violent Ocean* (tsunamis, storm surges); and *Impacts from Space and Mass Extinction Events* (meteor strike, comet dust). The course looks at natural disasters as they occur and studies how they are characterized in the popular media. Students go on field trips to examine natural disaster sites, and consider how the Vancouver region would fare in the event of a meteor strike.

Course leader Professor Roland Stull is enthusiastic about the course content and the calibre of experts involved in its design and delivery. The department even won a grant to fund development of innovative lab space and Stull is instilling his own enthusiasm for the subject area into his students.

Law for the people

The faculty of Law encourages its students to engage in clinical practice through community service, helping them to connect what they learn in theory with the off-campus world. Such programs represent priceless experiential learning for the students and a valuable legal resource for the community.

One of these programs is the First Nations Legal Clinic Program, located in the Downtown Eastside. Demand for the clinic's legal services outstrips the supply of student talent, since all the time students put in is volunteered. Other programs include a Criminal Clinic, in existence since 1974, allowing students to assist practising lawyers in defence or prosecution.

Some outreach programs have been initiated by the students themselves. One of the largest is the Law Students Legal Advice Program, which is run by students with funding from the provincial government via the Community Legal Assistance Society. Approximately 150 students are involved in this program at any one time.

As well as running their own programs,

Photograph by Kent Kallberg

MEASURING UBC'S SIGNIFICANCE

In his remarks to graduates at the Fall, 2001 UBC Congregation, Chancellor Bill Sauder observed that when he graduated in 1948 Canadian employers were impressed with a UBC degree. Now, he said, a UBC degree is recognized around the world, thanks to the fact that "UBC has grown from a strong national university to a significant international one."

However we define the term "significant" as applied to a university, recent developments suggest that UBC's reputation is growing on both the national and the international scene.

First is the announcement concerning the Canadian Research Chairs program. The federal government created this program at the urging of universities as a way to stop the brain drain and to attract top researchers from abroad. UBC has been allocated $116.5 million, which puts us in the top three of the research universities involved in the program. The funding will secure 156 chairs over the next five years and will involve diverse research from the study of adult stem cells to condensed matter physics.

A second development comes in the form of a gift from Finning International. The company has donated 15 acres of land east of False Creek to a consortium made up of UBC, Simon Fraser University, BCIT, and Emily Carr College. This will give us the opportunity to develop concerted research and learning programs to attract world-class researchers to hi-tech facilities on the site.

Another important step is the opening, on 30 November 2001, of UBC's new campus at Robson Square. This brings opportunities for life-long learning, professional development and career advancement to the downtown core, and shows our commitment to make higher education more accessible.

In a truly international development, we have joined with Korea University to build a residence at UBC to house 100 Korean students who will take classes at UBC for one year. This is modeled on our current agreement with Ritsumeikan University in Japan, and we are developing a similar program for Mexican students from Tec de Monterrey.

Finally, for the third year in a row UBC has placed second among doctoral/medical universities in Canada in the Maclean's survey, behind the University of Toronto. Our researchers, students, teachers and staff are recognized as being among the best in the country.

By strengthening our research and scholarly capabilities, by creating a first-class learning environment, and by developing opportunities to reach out to the larger community, we will continue to build an institution that wins praise at home and abroad, and that deserves to be called "a significant international university."

— **Martha Piper**, *President, University of British Columbia*

UBC Law students can volunteer in others through the Pro Bono Program. Established for three years and run by paid students, this program matches volunteer students with various legal service organizations across the Lower Mainland. At the campus level, the AMS Student Legal Fund Society involves Law students in cases with potential significance for students.

Finning cultivates high tech

■ Some of Vancouver's most desirable land has been donated to the cause of high tech. Finning International gave 80 percent of its 18.7 acre holdings on the False Creek flats to be shared equally by UBC, SFU, the Emily Carr Institute of Art and Design and BCIT.

The four institutions will collaborate on the creation of a high tech educational centre that will attract students, industry and investment to the area.

The land, bordered by Terminal Avenue, Main Street, Great Northern Way and Clark Drive, is worth about $34 million.

Chair examines children's gastric problems

■ UBC is the first university in Canada to boast a research chair in Pediatric Gastroenterology.

Gastrointestinal disorders in children can affect all age ranges and cause symptoms such as inflammation and ulceration of the digestive tract, pain, vomiting, bloody diarrhea, chronic fatigue and drastic weight loss or gain. Affected children often miss school because of repeated visits to the hospital. Current treatment includes lifetime medication or surgical removal of parts of the digestive tract. The new chair will allow research into better alternatives and will draw more attention to gastric conditions and their treatment.

The bulk of the research will take place at BC's Children's Hospital, which is at present the province's only consultation and treatment centre for pediatric gastroenterology.

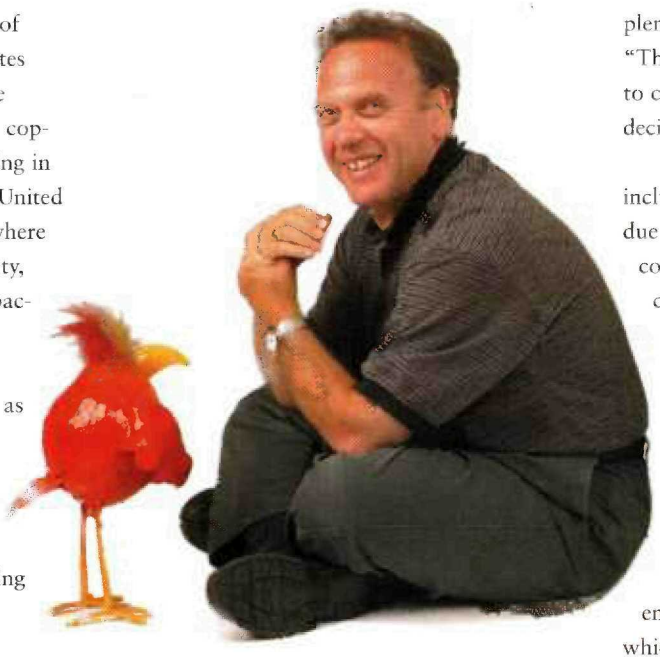
The chair, worth $3.5 million, represents fundraising efforts by the CHILD Foundation (Children with Intestinal and Liver Disorders), an organization which has been working since 1995 to find a cure for conditions like Chrohn's disease and ulcerative colitis. UBC contributed $500,000 to the fund, while the provincial government added $1,000,000.

For more information about CHILD's work, see their website at www.child.ca.

New resources for the under 6

■ A UBC professor has conducted research that will be used by the United Way to strengthen community resources for young children. Professor Clyde Hertzman's research is providing support for the organization's "Success by 6" program, which is focused on providing comprehensive community services for children under six across the Lower Mainland.

Concerned with the determinants of health, Hertzman's research demonstrates how critical life's early years are for the development of long-term good health, coping mechanisms and a sense of well-being in children. The data he collected for the United Way project included information on where under-sixes are located in the community, their learning requirements and the capacity of existing programs for fulfilling them. Hertzman and the United Way developed a community resources map as a tool for effective service provision.



New resources for under 6: Clyde Hertzman is looking into services available to kids in the Lower Mainland.

Herbal health or herbal hoax?

Regarded with disdain by the doubting Thomases, accepted blindly by true believers and approached with hopeful caution by those in between, herbal medicine has been around long enough to secure itself a permanent spot on many drugstore shelves. But its success is problematic to those in the medical profession, particularly those in pharmacy.

With increased pressure on services, people need to be as informed as possible about their own health and the types of treatment available. In the case of herbal medications, this awareness is made more difficult by a paucity of research, unregulated quality control and a proliferation of formulas. Herbal medications are often categorized as food supplements by manufacturers and don't face the same stringent standards.

According to a recent survey sponsored by the Nonprescription Drug Manufacturers Association of Canada, about a third of Canadians use herbal medication. But consumers tend not to have the same healthy fear of herbal products that they do for traditional prescription medication, and are less likely to ask for a professional opinion. Most think of herbal medication as harmless, which is often not the case.

It was for these reasons that Pharmaceutical Sciences instructor Lynda Eccott and colleague Kath MacLeod developed the elective course *Alternative Medicines in Pharmacy Practice*.

"The risks associated with herbal supplements can be significant," says MacLeod. "That's why our students must be prepared to counsel patients to make informed decisions about these products."

Major problems with herbal medication include low quality and inappropriate use, due partly to the lack of uniformity in the concentration of active ingredients. This, coupled with the perceived lack of harm, can lead to overuse and possible damage. Other problems include inadequate warnings about side-effects and inconsistent dosage instructions. Herbal medication can also have negative interactions with traditional medication.

Pharmacy students are taught to encourage clients to report side-effects, which suggests that this program could have far-reaching effects on the future regulation of herbal medication. The NDMAC survey found that pharmacists are currently asked for advice about herbal products only 10 percent of the time.

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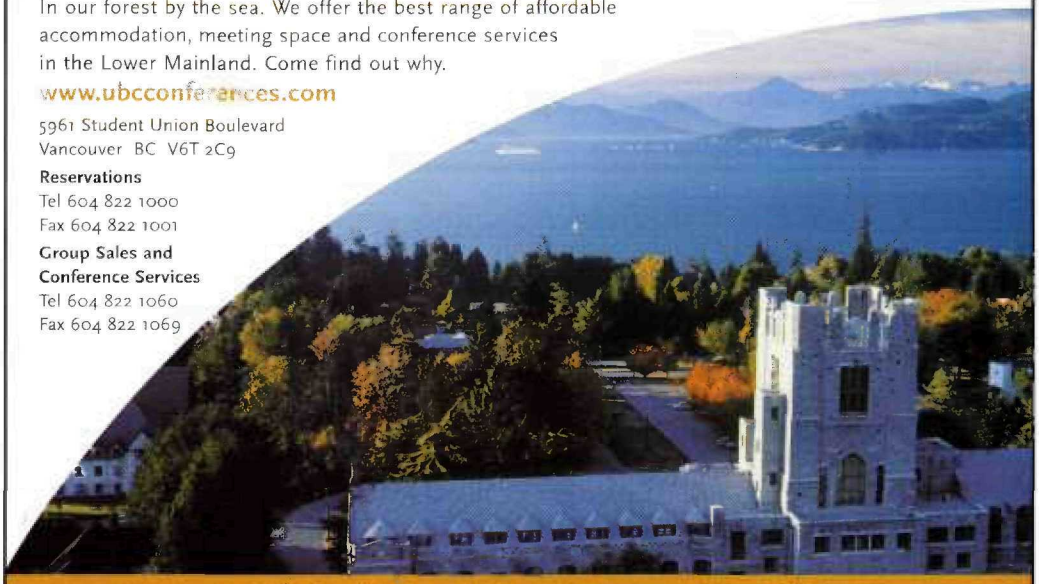

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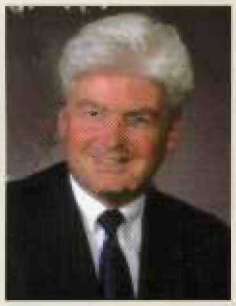
ALUMNI ASSOCIATION AT ROBSON SQUARE



IN THE LAST ISSUE OF *TREK*, I outlined some of the services we provide to our members and to the university. As the only campus organization that regularly communicates with UBC's alumni and friends, we maintain a link that is vital to the university's well-being and that keeps grads informed about their alma mater. We are proud to be such an important part of the university's affairs.

By the time you read this, UBC at Robson Square will be in operation. The university has leased and renovated over 60,000 square feet of space in the heart of Vancouver, and will offer programs for credit and non-credit study, counselling, public lectures, special exhibits, professional development seminars and international cultural events. Both the library and the bookstore will have branches at Robson Square.

Synergies created by the presence of Continuing Studies, Career Services, the Women's Resources Centre and the faculty of Commerce expand opportunities for grads of all ages and disciplines.

I am pleased to report that your Alumni Association is part of the Robson Square experience. As a key partner in the UBC Connections Centre, our new downtown office offers expanded services to alumni and students.Here are some examples:

Mentoring: We organize mentoring events with UBC Career Services, faculties and undergrad societies on campus. At the Robson Square location, we are able to develop stronger connections with companies and grads who work downtown, giving current greater access to the experience of our members.

Young Alumni: Our active Young Alumni Network organizes mentoring opportunities, social events and professional seminars for grads of the last 10 years. Robson Square puts us within walking distance of thousands of our recent alumni, who are now able to access these services without coming out to campus.

Alumni Connections: With an office and staff on site, we are able to provide personal service to alumni who want to get involved with Association affairs, inquire about alumni merchandise, membership cards, and program information, or who wish to sign up with our On-line Community.

We're excited to be involved with UBC at Robson Square. Our Association has been at the forefront of alumni cultivation at UBC since 1917, and we will continue to develop programs and opportunities that serve you and benefit the university.

Please visit us at our downtown office, and become part of UBC at Robson Square.

– **Greg Clark** BCOM'86, LLB'89
President, University of British Columbia Alumni Association

> RESEARCH NEWS

Adventures in screenwriting

As the film industry continues to thrive in BC, two professors from the Theatre, Film and Creative Writing department are giving UBC students a leg-up into the industry. Inspired by their own successful film-making partnership, Creative Writing Associate Professor Peggy Ashcroft and Film Assistant Professor Sharon McGowan are encouraging cooperative projects between students from each of the disciplines, with very successful results.

One of these groups (graduate students Geoff Inverarity from Creative Writing, Byron LaMarque from Film, and Kelly-Ruth Mercier from Theatre) produced an award-winning screenplay, *Still Life With Scissors*, which will air on the CBC this spring.

Ashcroft and McGowan have already produced two acclaimed films (*The Lotus Eaters* and *Better than Chocolate*), and have a third in the pipeline (*Saint Monica*).

The two professors realized that good teamwork can produce outstanding results and they resolved to help UBC students experience the benefits of professional collaboration at an early stage in their careers. The idea is rooted in an advanced course in directing initiated by Film Associate Professor John Wright, who facilitated the teaming of undergraduate acting students with graduate directing students. Thompson soon became involved on the writing front, adding another discipline to the mix.

Since they are familiar with the work of individual students, Thompson and McGowan feel they are well placed for suggesting and guiding the best collaborations.

"Unlike other areas of life," says McGowan, "in film, opposites usually don't attract." They hope students will benefit creatively and will be more employable by the time they complete their respective courses.

Health and education in the Punjab

Twenty years ago, Vancouver resident Budh Singh Dhahan initiated a project that linked UBC's School of Nursing to a local Indo-Canadian charity and the Guru Nanak College of Nursing in Dhahan-Kaleran, Punjab. The vision which continues to drives this project is improved health care for the people of rural Punjab and an opportunity to modernize nurse education.

Today, Dhahan's son, Barj Singh Dhahan BA'83, runs the local charity that funds the Punjab project. "We know if we offer health education in rural areas and particularly if we educate young women, we will create leaders who will have a positive influence on life in India," he says. The School of Nursing continues to provide an advisory committee, with Professor Sally Thorne as chair.

Challenges faced during the project have often been culturally based. For instance, while Canadian nurse education now encourages informed decision-making by professional nurses, Indian nursing culture emphasizes the passive role of the nurse. Local perceptions of

how health services are used also differ substantially from those commonly held in Canada, and learning has taken place on both sides.

Faculty visit the Punjabi College to see the results of their work first-hand and to advise on curriculum. Current students and Nursing alumni visit to help provide training and to complete directed-studies programs. They can learn about tropical diseases and different models of health-care delivery. Nursing faculty are currently collecting health data from the area which will be used in determining its health and educational needs. Next spring, students from the Punjab College will visit BC to get a taste of nursing education in Canada.

Food of love

Many assume that the ability to appreciate classical music is somehow tied to class and privilege. In an attempt to debunk that assumption, UBC's Learning Exchange is offering a 12-week music appreciation course to residents of the Downtown Eastside.

Karen Lee Morlang is artistic director of the music program, which is taught by faculty and students from UBC's School of Music. "We want to help students get involved with the music and what goes into performing it," she says, "and not to feel intimidated." The free course is delivered at the level of an introductory, non-credit university course, and it includes lectures, concerts, and listening assignments.

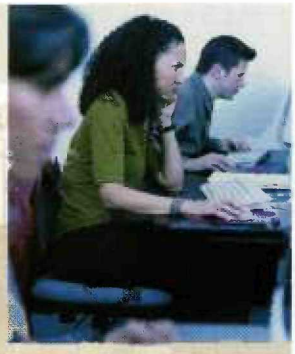
Students are also provided with travel expenses, meals and a UBC library card. Financed by the AMS Innovative Projects Fund, the course follows in the tradition of successful humanities and science programs already running in the Eastside community, and its 30 spaces are already full.

Maintaining the ranks

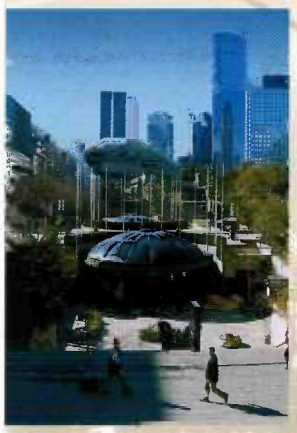
When Maclean's magazine released its annual university rankings recently, UBC maintained its second place showing among Canada's medical/doctoral universities. The University of Toronto remained in first place out of the 15 universities in the category, and Queen's University was third. UBC rated top

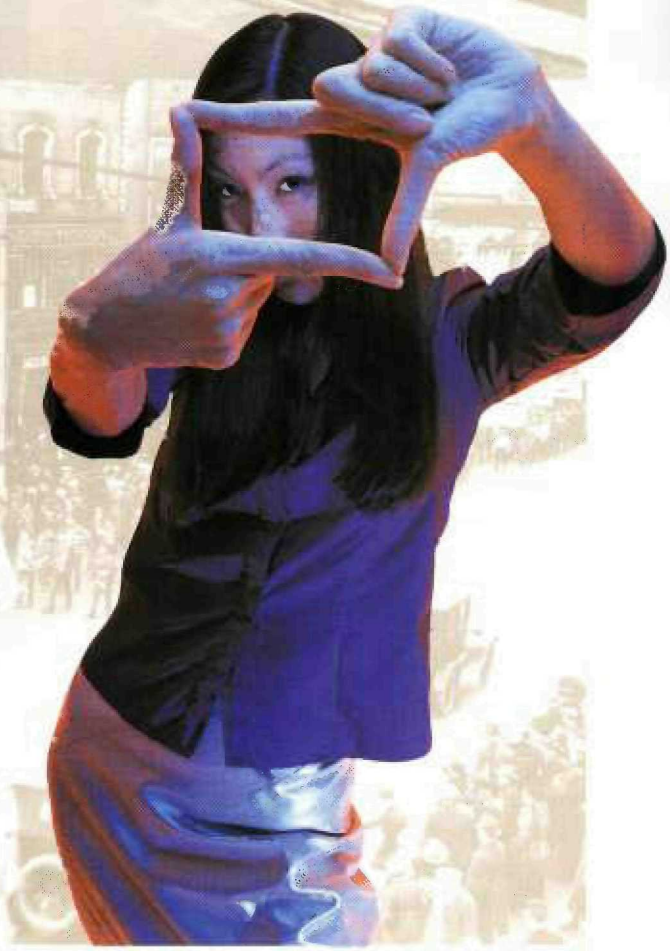
UBC

ROBSON SQUARE



WE'RE DOWNTOWN On November 30, UBC at Robson Square officially opened its doors. The downtown campus offers credit and non-credit courses, public lectures, career services, displays from the Museum of Anthropology and all the other components essential to a vibrant, exciting university. UBC hasn't had a downtown campus since 1922. Now we're back. Come visit UBC at Robson Square and see what's new.





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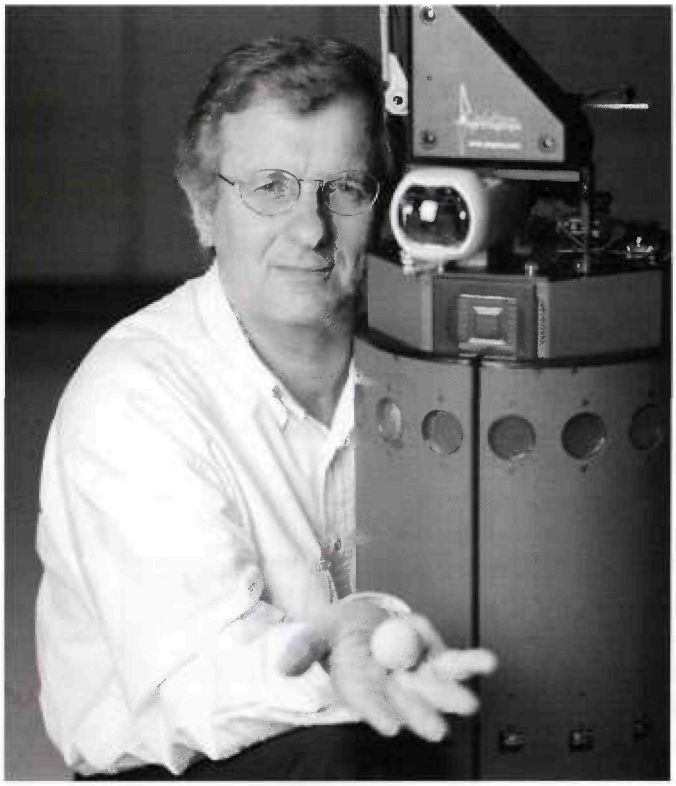


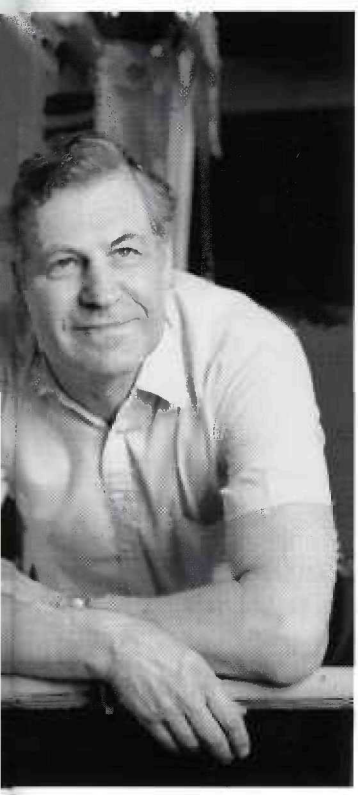
Alan Mackworth

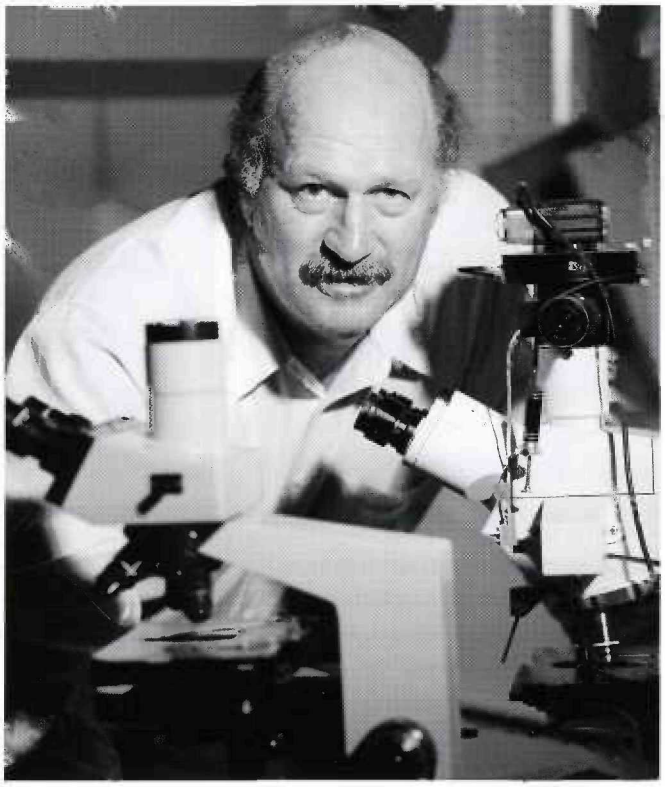
John Grace

CANADA RESEARCH CHAIRS

With the federal government's sharp increase in funding for science, Canada is shucking its old image as a loveable underdog and is gaining a reputation as a hotbed of research and development. Canada's brightest are being enticed by the creation of the $1.8 billion Canada Research Chairs program. The funding is creating new research chairs across the country, with UBC receiving $120 million, or 163 new research chairs over the next five years. Funding for a chair takes care of a researcher's salary for five to seven years, providing a reasonably long-term, secure period for research. The funding helps to bring back Canadian researchers living abroad, and attract top-level researchers of all nationalities.

Photograph by Jonathon Vaughn





Robert Hancock

Elizabeth Simpson

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Fresh perspectives.

These five investigators represent the quality and intensity of UBC research. They, and their colleagues, draw students, faculty and funding from around the world.

ELIZABETH SIMPSON thinks some brain disorders and mental illnesses are linked to mutated genes. She's studying mice because their genetic and chemical makeup, and their social structures, are similar to ours. She's hoping to develop new techniques for diagnosing and treating disorders such as schizophrenia, pathological violence and autism.

ROBERT HANCOCK studies superbugs and the role antibiotics play in their evolution. Hancock is developing new ways to combat these bugs using very small proteins called peptides. His research may lead to treatments for multi-resistant staph, tuberculosis and even cystic fibrosis.

ALAN MACKWORTH examines how we receive, process and use information, and applies that knowledge to developing artificial intelligence. His research is also unlocking the secrets of the nervous system and enhancing our understanding of the underlying principles that make intelligent behaviour possible.

JOHN GRACE'S research explores alternative energy sources that won't impact the health of the planet. He's examining such low-emission alternatives as low-temperature combustion and the production of pure hydrogen from natural gas.

IZAK BENBASAT is working on the electronic retail environment and the comparative lack of human contact during transactions. His work will help guide e-businesses in how to foster a strong electronic customer base, and should improve the customer service for electronic shoppers.

for both the percentage of faculty with PHDs and number of faculty receiving research grants for social sciences and humanities. Most improvement was seen in the Student Body categories. These included a jump from eighth to third place for the percentage of students who graduate, and a move up to second position for the proportion of students with a GPA of 75 percent or better.

Don't let the flu bring you down

The mind-body connection is again under scrutiny. Psychiatry Assistant Professor Cai Song has been exploring the connection between the immune system and the nervous system for 12 years. She has a strong interest in links between disorders of the immune system and depression.

"These are two very complicated systems," she says, "and psychiatrists and immunologists usually don't talk." Her own academic background helps her cross boundaries and think around corners. She has a medical degree in Chinese medicine and a PHD in neuropharmacology, with a focus on neuroimmunology. Song's subject area — psychoneuroimmunology — explores microbiological and behavioural links between the two systems. Her research is considered groundbreaking, and she is co-author of the first text in the area.

Song's research shows that depression can trigger changes in the immune system and, conversely, that certain treatments directed at the immune system — such as chemotherapy — can have an adverse effect on the chemical balance of the brain. Such imbalance can lead to depression, memory problems and anxiety. Her goal is to find treatments for the immune system that don't have a negative impact on the psyche. She would also like to find a better treatment alternative to anti-depressants, which can have serious side-effects and a toxic effect on the immune system. She stresses that not all depressions are a result of changes to the immune system, but believes that there is a strong connection, often overlooked by medical practitioners.

The flu can cause more than sniffles: **Psychiatry Assistant Professor Cai Song looks at the relationship between immune disorders and depression.**

Her research may also offer clues to the causes of Alzheimer's. Her research with Alzheimer's patients indicated changes in the immune system that differ from the normal aging process. Song hypothesizes that Alzheimer's is connected to an auto-immune disorder caused by aging of the thymus gland. This summer, she received a grant to fund further research into those connections.

Ethical building blocks

UBC students are still playing with Lego. But rather than houses and trucks for the little people, they're making complex Lego Mindstorm robots used in games designed to demonstrate issues of ethics and technology.

Students in Ethics Professor Peter Danielson's Ethics for Robots graduate seminar design robots to compete against each other in situations that involve ethical choice. The purpose isn't to destroy the opponent, but to demonstrate to students that technology designed to compete can be tempered with ethical characteristics such as constraint.

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"Technology is just like nature," Danielson says. "When it comes out of the box, it doesn't care about us. It's amoral and risky, and in the seminar, students take that technology and produce something that is moral, sociable and able to get along with others and with us."

Tehran's loss, our gain

Awarded her PHD at this fall's congregation, Lucy Marzban began her academic career in medicine at Tehran University during Iran's eight-year war with Iraq.

Her studies were often disrupted by bombing raids and working volunteer shifts in the hospitals. Eventually, she received her medical degree in laboratory medicine, with the second highest marks in her class. Afterwards, she worked at the Diabetes Research Centre there and was supervisor of a medical laboratory in the Health and Therapeutic Centre at Iran University.

Her original intention was to become a physician (her grandfather is a surgeon), but she decided her real passion lay with medical laboratory science. She also decided to leave Iran and sought an English-speaking country where she could pursue further study.

She arrived in Vancouver in 1997, not knowing a soul. Just as she was about to give up on finding a supervisor, she met Professor John McNeill. In the course of their work together, they made a breakthrough discovery. They were exploring how the element vanadium can be used to treat diabetes by experimenting on muscle cells. When those cells didn't respond, Marzban suggested that they concentrate on diabetic liver cells instead. Her approach was successful.

Marzban remains in Vancouver as a post-doctoral student with Pathology Assistant Professor Bruce Verchere, studying diabetes in children.

Millennium plug

The Britannia Copper mine near Squamish used to be one of the world's most productive mines, but the toxic run-off also turned it into one of Canada's most polluted. The mine closed 25 years ago, but copper, zinc and sulphuric acid still leach from the mine and destroy the local marine environment.

Mining engineers from UBC are addressing the problem with an innovative technique. In the past, concrete plugs were used to close up mines, but these had a tendency to corrode in acidic environments. PHD Candidate Brennan Lang has devised a different type of plug that is cheaper, less vulnerable to corrosion, and likely to last 1,000 years. Constructed from layers of soil, sand and clay, the new plug can also withstand high pressures and seismic activity. Another (concrete) plug will be built in the same tunnel and the mine will serve as a research station for faculty and staff.

The research station will cost $100,000 to set up and will be funded from a $3.3 million grant awarded to UBC's Centre for Environmental Research in Minerals, Metals and Materials (CERM3). The UBC team has access to the mine for five years.

Old bridges: Researchers read the writing on the bridge. New patching techniques promise to prolong the life of bridge decks.

Old bridges made new

A new method for repairing old bridges by a UBC professor may help dispense with traffic delays, save time and drastically reduce repair costs. Professor Nemkumar Banthia's method involves the high-speed application of a fibre-reinforced polymer spray to an existing structure, effectively doubling its strength. BC's ministry of transportation is funding tests on 46-year old Safe Bridge in Duncan.

The material carries fibre optic sensors that can transmit information on traffic, weather conditions, wear rates and other data via the Internet. This will allow Banthia's research team to check up on the product's performance remotely. BC is a good testing ground partly because of our high year-round earthquake activity. Banthia thinks the spray should increase the amount of seismic energy a structure can absorb without detriment to its safety.

The BC Ministry of Transportation provided $60,000 for the test on the six metre Safe Bridge. Application of the material took five days.

The spray is an improvement over previous methods such as steel jacketing and fibre-reinforced polymer jacketing, because it is stronger and has greater longevity. The material has properties to reduce metal corrosion in high-chloride environments and so may prove to be the ideal material for use on oil-drilling platforms. The material is also impermeable, which may give rise to further applications, such as a lining for farm-animal manure containers to prevent contamination of human water supplies.♦

LIFE IN TRANSLATION

AUGUST 8, 2001, *le nuit des étoiles fusillade*, the first night of the annual summer meteor shower. In Paris, the usual Thursday night crowd is meeting at the *Pont des Arts* on the Seine. Once a week this loose network of 200 to 300 friends and acquaintances gathers to drink wine, make contact and reconnect. The chatter is in both French and English; there is talk of films and work and friends. Hands in pockets, dimly illuminated by the lights of the *Institute de France* to the south and the *Musée du Louvre* to the north, they only occasionally look up and imagine the flashes that pass unseen overhead.

I have come here with Lori Thicke. My second evening in Paris as her guest, we walked here from *Place de la Bastille*, crossing the river on the *Pont de Sully*, then strolling west along the Left Bank. At the *Pont des Arts*, we have a glass of wine and mingle with the crowd. Lori chats briefly in French with a few acquaintances (after sharing some two-cheek kisses), then we talk about her life in Paris.

The home she shares with her four-year-old son, Farrell, and Marites, his weekday nanny, is made up of two small detached houses joined by a corridor. Detached houses are a rarity anywhere in Paris; Lori's are less than a fifteen minute walk from the river.

Lori came to Paris in 1986 to write the great (West Coast) Canadian novel. She and I had been part of a group of six or eight hopeful writers that met at UBC in the mid-eighties then carried their energies and critiques into monthly meetings that shuffled on through the early nineties. But Lori didn't stay. She packed her bags and a rough manuscript and came to the City of Lights.

To me, and others in the group, the decision seemed spontaneous and poorly thought out. Now, standing here beneath the stars, boats passing under the bridge, I am old enough to admit to envy, and to recognize how little I knew about her.

Born in the late 1950s in Northern Ontario and raised in Victoria, Lori always chose her own way. The daughter of an amateur inventor and inveterate dreamer, Lori started her first business at 17, selling flowers, Polaroid photos and stuffed toys in Victoria's bars. When success garnered articles of praise in local papers, her income was suddenly threatened: "I was underage, so I was busted." Her response was to take on five employees and become the boss.

Two years later she sold the company and went to UVic where she earned a BA, then to UBC for her MFA. Lori worked for a publisher throughout grad school, editing local guides and books on topics as diverse as disarmament, herpes and growing mushrooms. She is the only person I know who paid back her student loan the day she graduated.

Her first home in Paris was a garret off *Boulevard de Sebastopol*, overlooking *Notre Dame*, not too far from where we now lean against the bridge's rail. She had no income, no French working papers and only a small Canada Council grant. "I kept thinking, 'My God. What did I just do?'"

Within months she was looking for work. A friend at the UBC library had given her the name of a Vancouverite working as a translator in Paris, and they started working together. They prepared user manuals and press releases, translating the text into idiomatic English. Since many translation companies don't use native speakers to edit materials, finished pieces are often awkward at best or, at worst, indecipherable. "A company won't find out that its material is nonsensical until the manual is published and someone phones up and says 'What the hell does this mean?'"

Within six months they had more work than they could handle.

In 1991 Lori went into business on her own and created EuroText (www.eurotext.com). Carrying an impressive client-base — which includes 3M, BP, Unisys, Virgin, Vivendi, and France's Ministry of Economy and Finance, as well as the Prime Minister's Office — EuroText now has 12 in-house staff and 200 contractors working across the Internet. Wisely, she made herself an employee of the company as soon as it was created. "Everything was always above board," she says. "I always paid taxes. I just didn't have papers."

Visiting her office earlier in the day, I was aware of an odd juxtaposition of memory and the here-and-now. Fifteen years ago, Lori looked like an "Island hippie." Now she heads France's first ISO 9001:2000 translation company and is working on plans to move off-shore and into other language markets. There is a slogan, "Quality translation at net speed," a corporate philosophy, "Delegating isn't just asking people to do, it is asking them to think, to contribute," and even a long-

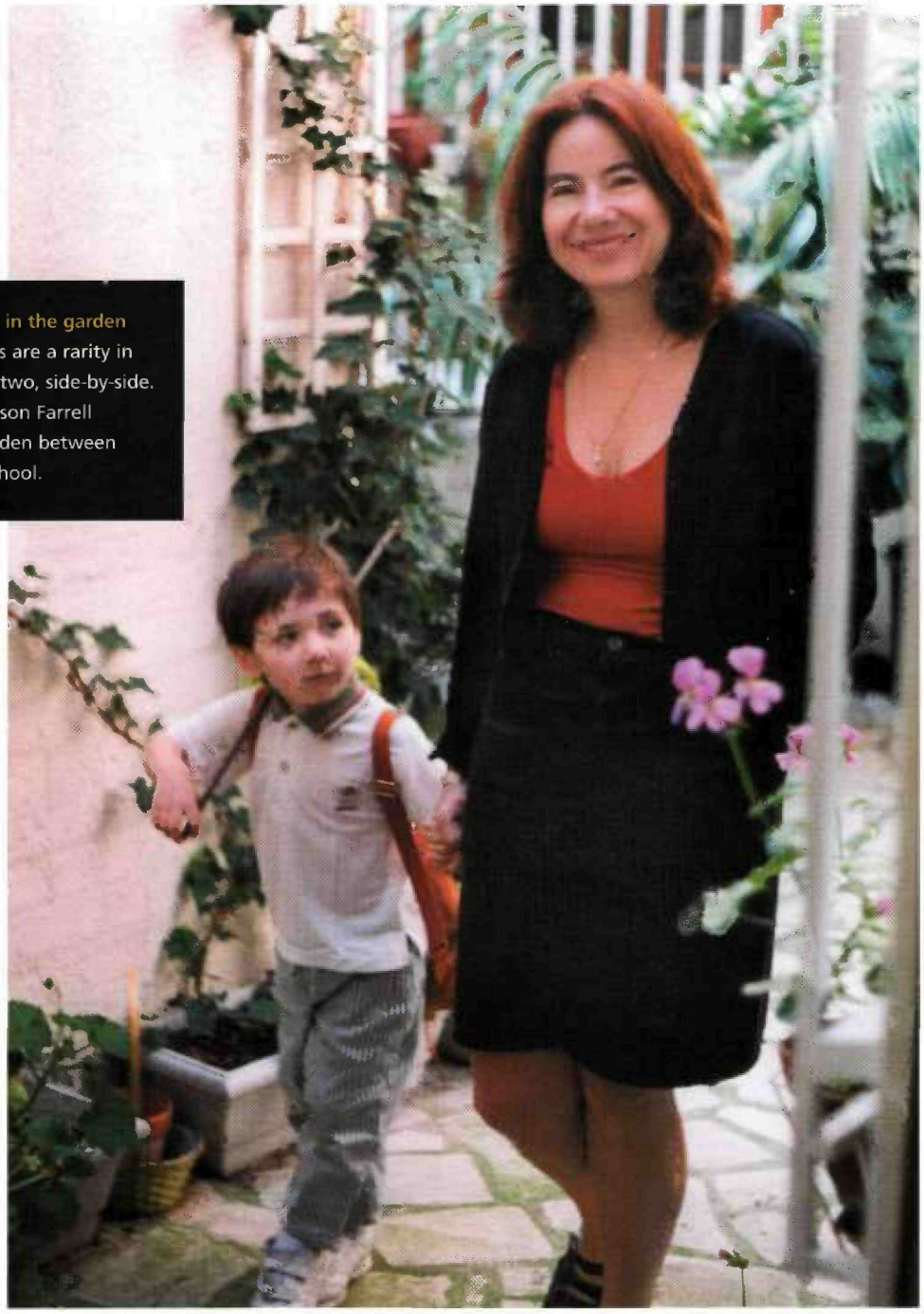
Life in Paris, two-cheek kisses, and doing things the right way. BY PATRICK LEWIS

term commitment to making the world a better place: "We've set up Translators Without Borders, and we work with (Nobel Prize-winning) Doctors Without Borders, as well as Amnesty International."

"In the past 10 years we've moved from a seat-of-the-pants operation to doing it properly. I haven't had any formal training" — this from the woman who sold her first company at 19 to pay for university — "so now I study like mad."

Just before midnight we leave the bridge and walk home along the banks of the Seine. Tomorrow, the household will be up early. A close friend of Lori's is singing the lead in *The Merry Widow* in a village deep in Burgundy's chateau country. We are taking the car. The fortunate guest: by early afternoon I will be contemplating fields of sunflowers and bottles of wine. And come the night, the three of us, Lori, Farrell and I, will listen to music beneath the stars.

The river-side freeway is closed for August and even this late at night, blade runners and bikers are free-wheeling at the water's edge. We chat about Farrell, his sense of humour and the advantage of being fluent in two languages at the age of four. And we talk of family, friends and places we both know. She misses Vancouver — she and Farrell visit once a year — but Paris is home. I ask about the manuscript that supposedly brought her here, correctly guessing that, complete, it gathers dust in some drawer. ♦



Mother and son in the garden
Detached houses are a rarity in Paris. Lori owns two, side-by-side. Here, she walks son Farrell through the garden between the houses to school.

One hundred years after a German engineer demonstrated the first compression engine, a UBC laboratory develops technology to ensure the diesel engine can keep its place as a driver of the world economy. BY RICHARD BANNER

SAVING DIESEL

A piston compresses air in a 400-millimetre long steel cylinder to a pressure of 625 pounds per square inch. The intense pressure drives the air temperature up to hundreds of degrees Celsius. A blast of air forces a spray of gasoline into the chamber. The fuel ignites and explodes, forcing the piston back and sending a monitoring valve flying past the heads of engine designer Rudolph Diesel and chief engineer Lucien Vogel. The first working diesel engine is born.

That explosion occurred on August 10, 1893, in Augsburg, Bavaria, in the workshops of Maschinenfabrik-Augsburg A.G. Diesel and his team refined and tested the engine, and by February 17, 1897, an independent test showed the machine in continuous operation, generating 17.8 horsepower. Its efficiency — ranging from 22 to 26 per cent — doubled the efficiency of internal combustion engines of the late 1800s.

The following year, three companies displayed the new diesel engines at a Munich exposition of power plants. By 1900, Diesel and his partners had granted over 50 licences and options. Today, the diesel engine is the moving force that powers the industrial world.

THE DIESEL ECONOMY

Diesel's invention needed large external air compressors to operate, so his first engines were stationary machines for small industries. At three metres in height and about 250 pounds per horsepower, they were not intended to compete with the spark-ignition engines that were already powering motorcars. By 1910, however, seagoing ships, with room for large engines, began to use the diesel engine because its greater efficiency meant that they could travel farther with less fuel.

With the development of a fuel injection pump powered by the engine itself, a mobile engine became possible. Maschinenfabrik-Augsburg A.G. introduced the first diesel-driven trucks in 1924 and diesel locomotives appeared the same year. By the end of the Second World War the diesel motor had become the most efficient way to move heavy loads.

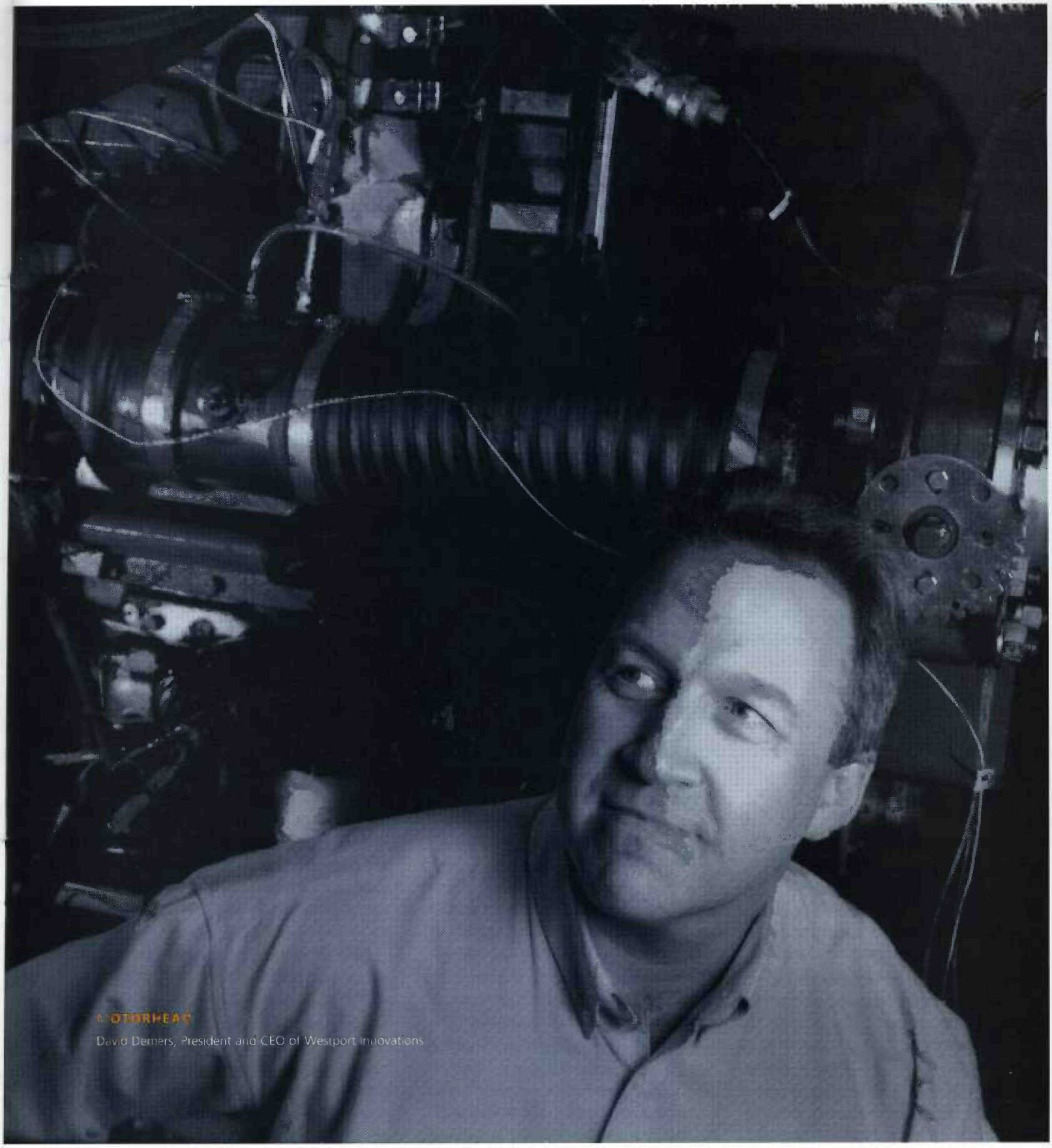
With up to 55 per cent fuel efficiency, diesel engines remain far more fuel-efficient than spark-ignition engines, which can only achieve 35 per cent. Diesels generate high power at low rotating speeds, making them ideal for heavy moving jobs. They are built to withstand high pressures and temperatures and have no need to control the air-fuel mix, so they are simpler and easier to maintain. They work with a variety of fuels (including coal dust, used in several of the early experiments) so they can burn low-cost heavy fuel oils that have more energy per litre than lighter fuels such as gasoline.

As a result, businesses choose diesel engines wherever cost, power and durability are important factors — in freight trucking, marine shipping, railroads and many urban fleets of buses and delivery vehicles. Diesel engines have even powered some aircraft, though their heavier weight is a drawback against their efficiency. They are widely used in stationary electricity generators because they can produce more power at less cost than most alternatives.

In Europe, new light-weight, high-speed diesel engine designs are capturing more than 30 per cent of new car sales. In less developed countries, where reducing the use of imported fuels is essential, diesel engines are not only good business, they support the national economy.

A CLOUD OF BLACK SMOKE

But the dominance of the diesel engine faces a growing threat, especially in the West. Diesel exhaust contains known carcinogens and lung



MOTORHEAD

David Demers, President and CEO of Westport Innovations

irritants, and although diesel trucks account for only two per cent of traffic in North America, they produce more than 40 per cent of vehicle emissions. Forty chemicals in diesel exhaust are on California's list of toxic air contaminants, and California's Lung Association reports that the risk of cancer from exposure to diesel emissions (which include fine particles — mainly soot — and nitrogen oxides) far outweighs cancer risks from other air contaminants.

All vehicles that burn fuel in air produce nitrogen oxides, which are a major factor in chronic lung diseases and asthma. The amount produced increases as combustion temperature increases — and because diesel engines operate at high temperatures, they produce as much or more nitrogen oxides as other engines. Strategies to reduce the nitrogen oxide output of diesel engines tend to decrease the power and efficiency of the engine and increase the production of soot and particulates.

Complete combustion in diesel engines depends on high pressure and precise control of the fuel as it is injected into the cylinder. Worn fuel injectors and over-fuelling can produce billows of oily, black smoke, and although electronic control has greatly improved emissions diesel engines can emit dangerous particulates even when no smoke is visible.

The US Clean Air Act of 1969 gave notice to the industry that changes would be needed. Diesel manufacturers resisted at first, but by the 1980s they began to accept the inevitable, and researchers started looking for clean air solutions for diesel engines.

Several of the major manufacturers of heavy-duty diesel engines have agreed to reduce their emissions by approximately 50 per cent by October 1, 2002, and by 2007 will be required by the US Environmental Protection Agency to reduce particulate emissions by 94 per cent and nitrogen oxide emissions by 90 per cent of current levels.

Meeting these requirements will be difficult and potentially costly, and any approach that lessens the efficiency of the diesel motor will reduce its key advantages. The integrated twenty-first century market relies on efficient diesel engines not only to carry products to market, but to supply their raw materials and assembly parts, to grow, harvest and mine resources, to transport urban workers and often to generate electricity. The diesel economy will hit a deep pothole if a rise in transportation costs boosts the cost of virtually every industrial and consumer product.

SAVING THE DIESEL ENGINE

Many saviours are offering their technologies to the diesel industry. "Green" diesel technologies range from substituting vegetable oils for fuel oil to redesigning the engine to promote better fuel combustion at lower temperatures. These may not be practical: the first approach requires reorganizing the world fuel distribution system, while the second means re-tooling engine plants. Taking a new engine through design and development and into commercial production can take eight to 10 years and cost as much as $500 million.

Twenty years ago, Pat McGeer, then BC's science and technology minister and a UBC professor, proposed researching the use of natural gas to fuel vehicles. McGeer favoured natural gas because of BC's plentiful supply and its other advantages. It burns at a lower temperature than diesel fuel, which reduces the production of nitrogen oxides, and its simpler molecular structure produces less soot than more complex fuel oil molecules.

Natural gas is a good fuel for spark-ignition engines, but new catalytic converters allow them to operate with extremely low emissions while burning gasoline, eliminating the need for an alternative fuel. No such technology was available for diesels. Without a remedy to the exhaust problem, the diesel was in danger of being legislated into extinction. The diesel engine needed a new solution.

A long-time advocate of diesel's efficiency, UBC engineering Professor Phil Hill turned to the problem in the mid-1980s. Now retired from UBC, Hill still spends a few hours a day in his office in the department of Mechanical Engineering, where he can keep up with research and chat with former colleagues and students.

"Prior to 1980, you couldn't get students interested in the diesel because it has been so-called 'perfected' over a 50-year period. As an undergraduate in the 1950s, I once told my prof I'd like to work in diesel because it's a nice engine. He advised against it because there was so little incentive for further diesel development. So I didn't, and turned my attention instead to the gas turbine. But the pollution picture in the past decade turned everything upside down."

Looking for a way to preserve the advantages of the diesel engine in a world increasingly concerned about air quality led Hill to the concept of injecting natural gas under high pressure.

"We wanted to introduce this into the market in a practical way," says Hill. "The idea was to replace the fuel, not the engine." A natural gas injector could replace the conventional fuel oil injector and fit into the fuel port of a standard diesel engine.

Although natural gas will burn in a diesel engine, it will not ignite easily. To ignite it, a small amount of fuel oil — about three per cent of the total fuel — must be added. The pressurized, heated air in the cylinder ignites the oil, which then ignites the natural gas.

It's a simple idea, but with many complications. Injecting gas into the inlet manifold and compressing it can lead to combustion knock and inefficient combustion. Hill's research eventually focused on injecting pressurized natural gas into the already pressurized combustion cylinder — an

approach that diesel engineers had considered too complicated.

To work, the injector must inject the fuel oil, followed within milliseconds by the natural gas, into the pressurized cylinder. Natural gas must be liquefied and stored at -130 Celsius in order to provide enough fuel for practical mobility, and a pressurization system must boost the pressure from 250 psi in the tanks to the 4,500 psi needed to inject it into the cylinders.

"High pressure direct injection, either of diesel fuel or natural gas, requires precision machining of the order of tens of millionths of an inch," Hill says. "Developing the technology to do it accurately and reliably has been an important step."

The work was slow and painstaking, and Hill gives credit to more than a dozen graduate students who worked with him to conduct tests and measure, analyze and model the results. Teamwork, he says, was a critically important ingredient.

As Hill's method began to prove itself, he grew concerned about protecting the public investment. "How do you protect the Canadian interest in this? Here's where our industry liaison office plays a crucial role."

Alvin Fowler, then head of UBC's University-Industrial Liaison Office, discussed the research with Hill. He decided to file for patent protection for Hill's injector and conducted a market review. The review found that, although there was significant potential, no major corporation was interested in sponsoring the research.

Without increased funding, progress was slow, and by the end of 1994 "it was getting beyond the fundraising capability of a very ordinary professor like me," says Hill. "Things looked grim. Then Alvin Fowler introduced Hill to David Demers, a former IBM executive who was looking for new ideas to invest in.

GETTING INTO BUSINESS

"When I came into this," says Demers, "I knew nothing about diesel. Al Fowler phoned and said you've got to meet Phil Hill. It was clear that Phil understood the whole issue of air pollution and what can be done to solve the crisis of the large commercial diesels. It was also clear he did not know how to get from where he was to where he wanted to be. His research project was out of money and key people were drifting away."

Demers felt Hill had a worthwhile idea and, just as important, felt he could work with him to market the technology. After three months of careful technical and market research, Demers requested an option to license the technology for commercialization. He incorporated Westport Innovations Inc. in 1995 and set up an office at the UBC campus. He began to raise funding through the Vancouver stock market, government funding sources — and his own pocket.

"When I first met Phil," says Demers, "his first words after, 'Hi, how are you?' were, 'We set out to save the diesel engine.' That's really what the company vision is founded on: that diesel engines are a fabulous technical invention. They have this minor little defect, but our whole economy is built on these engines. So Phil said, 'We don't want to lose the hundred years of experience and infrastructure. Let's re-jig it so that it's good for another century.' That's a pretty bold vision."

It's the vision driving Westport Innovations. Demers worked hard for the next several years to convince engine companies that Westport's diesel technology would position them for the next phase of the diesel economy. And he worked with them to understand what would help them sell their engines to their customers, and how to shape Westport's technology to meet the needs of engine buyers.

Demers says, "We went to the three biggest engine companies and said, 'We're the only one that really has a solution to this problem and it's going to make you a stronger competitor. Either there's a niche market for low emission natural gas products — and we know there is because people are buying them for things like transit buses — or it will become a very large part of your market, maybe 20 or 30 per cent.' Either way it was a win-win proposition. One of the three said, 'You might have something there.'"

We set out the save the diesel engine.

That's really what the company vision is founded on, that diesel engines are a fabulous technical invention. They have this minor little defect, but our whole economy is built on these engines.

Cummins Inc., the world's largest maker of diesel engines, already had a natural gas engine, but it was a very small part of their business. "It's difficult for a large company to manage such a small part of their business separately," says Demers. "Our offer meant that we could help them manage two markets." Eventually Cummins agreed to help develop a full product line of natural gas diesel engines, and put its existing natural gas business into a joint venture with Westport.

"It's all about timing and circumstances," says Demers. He and Hill agree that even the most ingenious invention has

no value in the marketplace unless it meets a perceived customer need. "That's what's difficult for the university researcher," Demers says. "To put together a successful market strategy requires you to be deep into the politics of the time."

"Our timing anticipated a sea change in attitude," says Demers. "Most businesses would really love, given a choice, to do something that has less social impact, less environmental impact and makes them more money. It's just how do we get from where we are today to where we want to be in the future."

The joint venture with Cummins takes Westport Innovations closer to Phil Hill's goal of saving the diesel engine. The partnership plans to ship 10,000 natural gas engines manufactured by Cummins in 2004 and 100,000 engines per year by 2009.

Converting a share of the world diesel engine market to natural gas engines will mean targeting areas like China, where the Cummins-Westport joint venture is already supplying engines, and Beijing has announced it plans to change to 100 per cent natural gas buses.

After listing Westport's target markets, Demers says, "Unfortunately, Canada's not on the list." Canada has no government diesel emission regulations and no incentives for industrial users to switch to clean-air engines.

Westport Innovations now has about 225 people on staff, including Phil Hill as senior scientific advisor and most of his original team of researchers. It's expanded from a small office on the UBC campus to 150,000 square feet spread over seven buildings in South Vancouver. In addition to its joint venture with Cummins, Westport has partnerships with strategically chosen allies in the world diesel market: Ford trucks, Isuzu Motors in Japan (45 per cent owned by General Motors) and the company that produced Rudolph Diesel's first engines in Germany.

INTO THE FUTURE

Demers acknowledges that fuel cells, wind and solar technologies will play an important role in the future. "As far as we are concerned, more power to them. But everybody forgets, or dismisses, 100 years of bright engineers working on internal combustion. We really know how to do cool things with engines. We can make them cheaply and with incredible energy density.

"Socially, I don't think we are going to accept reduced mobility or the death of the transportation industry," he says. "If we could take it all apart and start fresh, we'd make something completely different. But given what we've got today, how do we advance in the most expedient, economical and attractive way possible?"

"The real challenge is coming up in 2007, 2008, 2009," Hill says. "There's a great deal of excitement in the industry. How is this going to be done? It's kind of fun," he says with a chuckle.

David Demers, the businessman, delights in his product. Combined with the ingenuity of Phil Hill and his team of researchers, and the insight of Rudolph Diesel, he is launching the second century of the engine that drives the industrial world. ♦

NAMESAKE

THE LIFE OF RUDOLPH DIESEL

RUDOLPH DIESEL wanted wealth and power — wealth for himself and power for small-scale manufacturers who could not afford the expensive steam-powered machinery being installed in the huge factories and revolutionizing European industry.

War and poverty shaped Diesel's life. Born in Paris to a German leather goods maker, he fled with his family when the Franco-Prussian war of 1870 intensified anti-German hostility. Unable to support a family in England, his father sent the 12-year-old to live with a cousin in Augsburg, Bavaria. Rudolph excelled in technical school and by the age of 22 returned to Paris to become managing director of a Swiss firm manufacturing ice-making equipment.

Diesel was fascinated by thermodynamics — the conversion of heat to mechanical energy. He theorized that he could produce a new type of engine that would be more than twice as efficient and considerably less costly than the steam engines and internal combustion engines of the time. An engine that used less fuel and worked on a smaller scale would allow smaller producers to gain the benefits of mechanized production. On the strength of his calculations, he persuaded steam-engine maker Maschinenfabrik Augsburg, now known as German engine maker M.A.N., and the Krupp company to build a prototype and develop a working pressure-ignition engine.

Diesel's patents allowed him to bargain for a 25 per cent royalty on sales. Seemingly secure in his wealth, he spent freely on luxuries for his family. His business dealings, however, were not as effective as his engineering, and his patent holding company collapsed. Suffering from a painful medical condition (still unknown), financial troubles and critics who challenged his patent claims, he disappeared from a ship on a windless, moonlit night in 1913 while crossing the English Channel.

BOWSER'S BRAIN

COGITO ERGO SUM

On that warm summer day, our red-sailed cutter, *Silversark*, was tied up beside our friends Greg and Denise on their catboat,

BY SILVER DONALD CAMERON

Queen Celeste. Leo the Wonder Whippet was balanced at our rail, whining quietly and trembling, eager to jump the gap between the two vessels to greet his dear friend Denise. But the gap was wide, and the boats were rocking.

"Leo," I said quietly, shaking my head, "forget it." He looked at me sideways, and then backed down. Denise laughed.

"Does he understand 'forget it?'" she asked. I looked at Leo, now resignedly curled up in our cockpit.

"I guess he must," I said. "I never thought about it."

But I've wondered about it ever since. When you live with a dog, you communicate constantly. The dog wants you to feed him, let him out, stroke him, walk him. You want the dog to come, go, lie down, hop in the car, fetch the ball. Over the years, each of you learns the other's patterns. The dog looks at you with a question. Your nod is the answer. You're startled at the amount your dog understands.

All this brought me to Stanley Coren's much-discussed book *The Intelligence of Dogs*. A prize-winning dog trainer, Coren is also a professor of psychology at UBC who observes that we rarely consider dogs as a serious subject of study. School children study whales, elephants, bats, dinosaurs and other exotic animals, but not North America's 52 million dogs, a few of which they see every day.

Dogs are so familiar that we assume we understand them. They were the first domesticated animals, and have shared our lives for 14,000 years. We have harnessed their intelligence for millennia — to guard people and property, sniff out fugitives or drugs, rescue drowning people, herd flocks, haul carts, retrieve game, guide the blind. According to the Kato Indians of California, says Coren, the dog was here before we were. The god Nagaicho created the world and all its animals, including humans — but his beloved dog tagged along while he did it.

The nature of "intelligence," in dog or man, remains mysterious. We think of it as a general intellectual power, but it is probably a package of different mental abilities. The same person can be brilliant in one field and dozy in another. Einstein couldn't balance his cheque book. William Faulkner couldn't spell. Mackenzie King communed with the spirit of his dead dog. But one would hardly claim that any of them lacked intelligence.

How would you measure a dog's intelligence? Traditionally, by its ability to perform tasks that we teach it. By that standard, though, the most intelligent soldier in an army would be not its general, but its most obedient infantryman. Perhaps some dogs decline to fetch balls because they are independent thinkers with other matters on their minds.

Coren argues that dogs show many different forms of intelligence. They understand space and size, and are aware of their own bodies. They accurately judge what they can and can't do. They solve unexpected problems. They have complex social rituals among themselves and with us. Some enjoy music — Leo likes to hear the piano — and some can grasp numbers up to five. Dogs make different sounds to convey different meanings, and they respond to language. Coren's own dogs understand more than 60 words, and other dogs have learned more than 100.

Coren tried to assess the "obedience intelligence" of 133 different breeds by surveying 208 dog-obedience judges from across North America. He found a surprising consensus. Broadly speaking, the working dogs — herding dogs and retrievers, particularly — rank high, spaniels in the middle, and hounds (including whippets) from mid-list downwards, with terriers spread throughout the list. The border collie was ranked in the top 10 by almost everyone.

The dog looks at you with a question.

Your nod is the answer.

You're startled at the amount your dog understands.

Coren points out something that had not occurred to me before, namely that intelligent dogs are not for everyone. Border collies, for instance, have been described as "bright, quick, and more than a little weird." A really intelligent dog figures out things you'd rather he didn't know, and solves problems efficiently — like how to get out of the house by crashing right through the screen door, or through the window if the door is closed. Bright dogs need active, engaged owners. If they're bored, they can become, well, more than a little weird.

By contrast, one veterinarian claims that Irish setters are "so dumb that they get lost at the end of their leash." Perhaps — but not all of them, and they are also gorgeous, affectionate and playful. If what you want from a dog is mainly companionship, why saddle yourself with a sharp-witted, jittery poodle or a demanding Doberman?

Leo probably understands 40 or 50 words and phrases, including "go git 'im!" and "forget it." And there's another His People often use — "I love you." I think he grasps that, too. ♦

FACULTY OF FORESTRY CELEBRATES FIFTY YEARS

FORESTRY has been an important part of UBC's offerings since 1919, when H.R. Christie was appointed first head of the department of Forestry in the faculty of Applied Science. The first degrees in forestry were awarded in 1923, the first MASC was granted in 1933 and the first PHD in 1949. The formal creation of the Faculty of Forestry in 1951 reflected the growing demand for professional foresters in the province.

In the early days of forestry education at UBC, programs dealt with basic forest operations and reforestation, reflecting the values of the era. As the industry evolved and public awareness of the importance of forests developed over the years, the faculty's thrust turned to forest sciences, wood product development, conservation, soil science, ecology and cultural issues surrounding forest use. It has become one of the leading faculties of its type in North America.

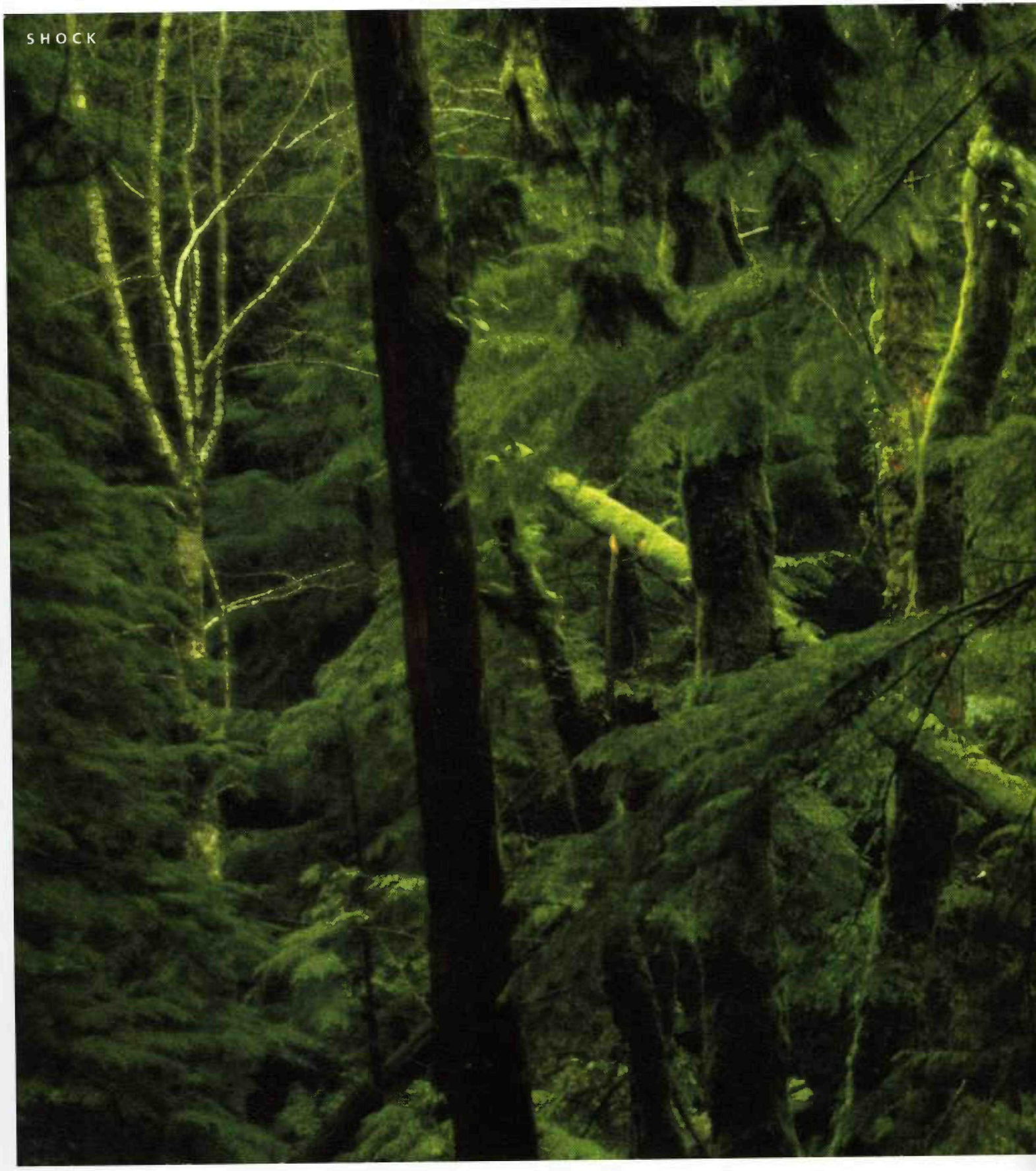
Some highlights of Faculty of Forestry programing:

- **NATURAL RESOURCES CONSERVATION**, an interdisciplinary program focussing on renewable resources, management of protected areas and ecosystems planning. Students spend three months at a field school studying three types of ecosystems. They spend one week living in each. The Conservation Volunteer program matches students with volunteer jobs, for which they can receive credit towards their tuition fees.

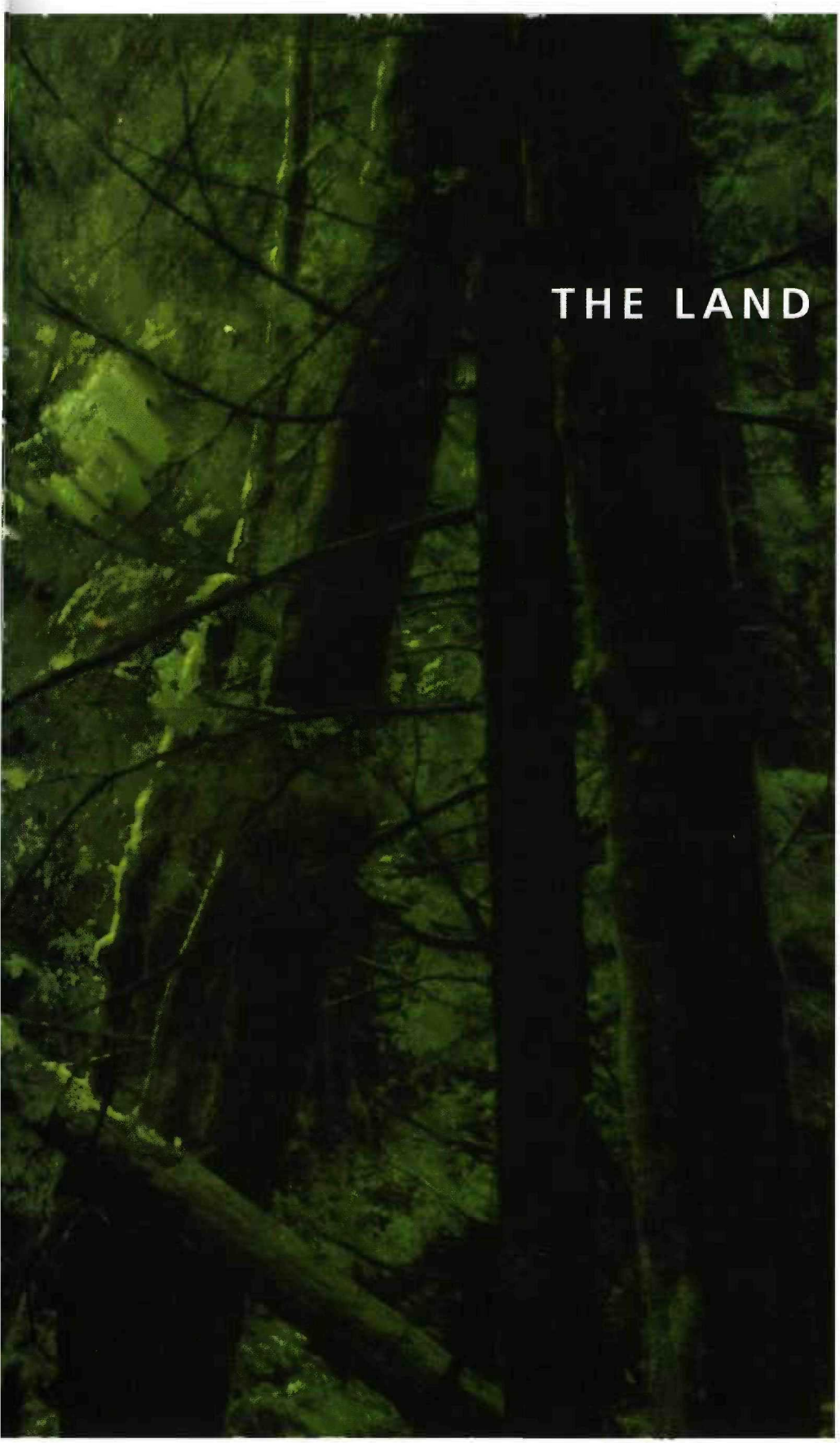
- **THE WOOD PRODUCTS PROCESSING PROGRAM** is the only one of its type in North America. Students learn technological skills and a specialized knowledge base in the wood-manufacturing sector. Students can work for up to 20 months in the Wood Co-op program and there is never any shortage of employers seeking Wood Products students.

- **THE FIRST NATIONS FORESTRY CO-ORDINATOR** integrates First Nations issues and perspectives into the curricula and works to attract First Nations students to the Forestry program. So far, 14 have graduated and 20 First Nations students are currently enrolled.

Since 1923, the faculty has awarded 3,500 undergrad, 600 masters and 275 doctoral degrees. There are currently 500 undergraduate and 250 graduate students in the faculty.



Photograph by Chris Dahl



THE LAND ETHIC

FORESTRY: "The art, practice, science and business of sustaining a desired balance of values and environmental services from forested landscapes."

FORESTRY IS A LONG-TERM ACTIVITY. Trees in Canada can take 50 — 150 years to reach commercial size, and the re-creation of old forest conditions might take 100 — 300 years or longer. It can take many decades to re-establish a forest that has been clearcut, or to change the structure of a forest once it has been established.

Human preferences are much more ephemeral, changing from decade to decade. In the last 50 years, society's attitudes about forestry have changed quickly, and forestry has not been able to match this pace of change. It has created what the American futurist, Alvin Toffler, called *Future Shock*. Future shock occurs when social conditions change faster than individuals can adapt to the change, or when institutions within society change more slowly than its members demand. This future shock within the industry is made even worse when pressure from some groups has led to changes in forestry that have been, in the long term, undesirable.

Some examples:

- Social pressure in the 1980s to change BC's original timber licences contributed significantly to the accelerated logging and poor road building practices that led to the Clayoquot Sound protest.

BY HAMISH KIMMINS

• Also in the 1980s, pressure from labour unions in the environmental movement led to the zero tolerance of waste regulation that robbed many harvested forestlands of decaying logs that are such an important part of the ecology of forests.

• Fifty years of over-zealous forest fire protection has radically altered many forests and rendered some of them more susceptible to damage from fire, insects and disease.

• Social pressure against slash burning has resulted in its virtual elimination, with consequent ecological implications, sometimes beneficial and sometimes not.

• Pressure to ban clearcutting and replace it everywhere with soft-touch, continuous-forest-cover forestry (sometimes called ecoforestry) may look nicer but will result, in some forests, in a loss of their historical ecological character and some aspects of biodiversity.

But change is an important part of forestry. Professional foresters have a responsibility to rethink the way forests are managed when social values and commercial requirements change. But they have a second responsibility to resist changes (and reject current practices) that have the potential to do lasting harm to the forest.

Part of the solution to future shock is good education.

Aldo Leopold and forestry education

Aldo Leopold (1886-1948), forester, farmer, fisherman, hunter, philosopher and conservationist, is widely considered the grandfather of the environmental movement. He was the author of *The Land Ethic*, required reading for all foresters. In this essay he challenges foresters to be ethical in the way they manage the land.

"A thing is right when it tends to preserve the integrity, stability and beauty of the biotic community. It is wrong when it tends otherwise."

Some interpret this to mean that disturbance and change in forests is wrong. But what Leopold means by preserve implies sustain, by integrity he means the maintenance of ecological processes, including processes of change, by stability he means change that does not diminish the forest, and by beauty he refers to ecological rather than aesthetic beauty. He was impressed by the complex and ever-changing mosaic of ecological conditions and processes across a landscape. This he found beautiful.

On the next page of *The Land Ethic* he wrote:

"The evolution of a land ethic is an intellectual as well as emotional process. Conservation is paved with good intentions that prove to be futile, or even dangerous, because they are devoid of critical understanding either of land, or of economic land use."

A thing is right when it tends to preserve the integrity, stability and beauty of the biotic community.

The examples of misguided policy noted above could have been avoided if those responsible had read and understood Leopold's writing. He noted that conservation is "a state of harmony between men and land," and that "conservation education" should focus on and "... build an ethical underpinning for land economics ... and a universal curiosity to understand the land mechanism (i.e., forest ecology and management). Conservation may follow."

Aldo Leopold's writing provides an excellent foundation for the design of forestry education. It asserts balance between social needs and preferences and environmental sciences. It stresses the importance of ethics and the necessity to respect nature as it is, not as we might want it to be.

Educating foresters requires that we develop in students the "universal curiosity to understand the land mechanism," and an ability to understand and predict what is meant by "a state of harmony between men and land." We must equip them with a love of forests, a commitment to life-long learning to understand how forest ecosystems function and an understanding of the critically important role of disturbance in our forests.

At the same time, our graduates must understand that forestry is fundamentally about people, not ecology. It is about jobs, wealth creation, maintaining rural communities, providing a mixture of material benefits including wood and many non-wood products, aesthetic and spiritual values, protection of human communities from floods, avalanche and landslide, and regulation of water and stream flow. However, foresters must build strategies to achieve and sustain these social values on a strong foundation of ecology and other sciences, and recognize the critical importance of sustaining all aspects of diversity.

Forestry as the ultimate multidiscipline

Problems are issues that don't get solved. Problems often persist because they are complex, while the solutions that are offered are too simple.

A fundamental tenet of academic science is Occam's razor: one should always employ the simplest available theory, hypothesis or model. Our entire education system reflects this approach. We subdivide complex systems, issues and structures of interest to society into a series of disciplinary subject areas (History, Economics, Chemistry, Physics), and then further subdivide those into specialized courses. These pieces, which are the academic equivalent of bricks and two-by-fours, do not describe the world in themselves or provide solutions to problems.

To do so (that is, to construct the houses and communities society desires), we must combine knowledge from many disciplines.

In both forestry education and the complex issues that are problems for society, there is a critical need for integration of disciplinary knowledge. We need methods by which we can integrate the academic bricks and two-by-fours into academic houses and communities.

Forestry education involves the basic biophysical sciences of physics, chemistry, engineering, hydrology, climatology, geology and biology and the complex sciences of soils and ecology. But it also needs the basic social sciences of economics, sociology, psychology, organizational behaviour, management and law, and the complex sciences of planning and forest management. We teach our students genetics, physiology, dendrology, soils, climatology, entomology, plant pathology, fire science, wildlife biology, hydrology, silviculture, forest measurement, statistics, recreation and aesthetics, remote sensing, forest engineering, forest harvesting systems, economics, policy, resource law, planning, management systems, public participation, ethics, First Nations issues, tenure systems, stream and fish management, and more.

It is wrong when it tends otherwise.

However, there is a real danger that these courses remain as academic bricks and two-by-fours. The critical need in forestry education is to ensure that the diversity of knowledge is integrated in a way that leads to better forest management. We should, and do, offer problem-based courses that address the social and environmental complexity of the real world.

Dealing with complexity: computer-based planning tools in forestry

In an ideal world, we would make decisions about managing our forests by combining a thorough knowledge of how managed forests function and evolve with long experience in judging and meeting social needs. Unfortunately, in BC we have no direct experience of the long-term consequences of different ways of managing forests, and social needs change in unpredictable ways. As a result, our decisions about alternative management strategies must combine our western-science-based knowledge with the experience-based knowledge of First Nations and forest managers.

One of the most important ways of supplementing this human thought process is through forest ecosystem management models.

The Faculty of Forestry at UBC has long been recognized for its computer modeling. Researchers have produced computer modeling of wildlife, timber supply, growth and yield, sawmilling, forest estate management, genetics, landscape visualization and many more.

One such modeling activity is the Forest Ecosystem Management Simulation Group in the department of Forest Sciences, now the subject of a senior Canada Research Chair in Forest Ecosystem Modeling.

By entering data that reflects all aspects of a forest's life — climate, rainfall, tree and understory species, growth rates, topography, soil composition, etc. — foresters can take a particular area of a forest and show, with computer graphics, how various methods of regeneration, tending and harvest will effect it. Commercial companies use such tools to analyze their forests and determine best-use scenarios, taking into account demands for recreation and other uses.

This and other models are analytical decision-support tools for professional foresters. They are less suitable for members of the public who are increasingly involved in forest land-use planning and management practice decisions. As a result, we have developed the high school educational forest management game FORTOON, which helps students understand the various dynamics that influence forest use, and, more recently, an interactive watershed landscape model called Possible Forest Futures. This is designed to help local groups determine how their needs and desires for the forest fit into a diverse program of forest management.

Our models have been or are currently being used in Norway, Scotland, several parts of Canada, the US, China and Thailand, while applications for New Zealand, Australia and Brazil are in the planning stages. The main function of these modeling programs is to analyze how the demands on a forest — timber, social and environmental — promote sustainability under alternative management practices. This is important in the green certification of forestry, which is becoming essential in the marketing of forest products. Our models are also being used to examine the role of forests and forestry in global climate change, and in examining traditional tropical shifting cultivation (Thailand), agroforestry (China), and problems of forest decline due to mismanagement (China).

These models are being used as the ecologically based drivers of timber supply analysis models (ATLAS), wildlife habitat models (SIMFOR) and advanced visualization models, all developed within the faculty. These integrated systems are bringing teams of faculty members together from all three departments in the Faculty of Forestry and elsewhere and are being applied currently to three locations in BC where there is public concern over forest management.

This system of modeling incorporates the basic tenets of good forest practice, and allows for maximum input from all the sectors of society that have an interest in our forests. In as much as Toffler's *Future Shock* provides its own model for how societies move toward dysfunction as change progresses, these systems reflect a new approach to making important social decisions in an informed and involving way.

Hungarian forestry students and faculty arrive by train in Vancouver.

THE SOPRON FORESTERS

When Russian tanks invaded Hungary in the autumn of 1956, students at the Sopron School of Forestry knew it was time to move on. Many students had been involved in the anti-Soviet activities that had swept Hungary in the weeks and months before the invasion, and staying on was not a viable option. And anyway: the school had a tradition of patriotism and activism. Begun some 200 years earlier at the University of Selmecbanya, the forestry school had picked up and moved to Sopron after Selmecbanya became part of Czechoslovakia after World War I and the breakup of the Austro-Hungarian Empire.

But in 1956, with Hungary occupied by the Soviets, the school was forced to find a home outside the country. Faculty, students and their families, some 300 people, fled to Austria with little more than the clothes on their backs, where they would appeal to the international community for a home.

Enter the Canadians.

When the Faculty of Forestry opened in 1951, Canada faced a serious shortage of trained foresters. The business of forestry continued to boom across the country, but outdated management practices, limited scientific advance and a growing awareness of environmental concern in the public were beginning to threaten the industry. The new faculty, one of four in the country, hoped to train a new generation of scientific foresters, men and women who would modernize forestry and insure the industry's growth.

The dean of Forestry, George Allen, heard of the plight of the Sopron foresters and recognized the incredible opportunity to increase the talent pool of the faculty and to reach out to the men and women displaced by the Soviets. After a hurried trip to Austria to talk to the group, and with the assistance of Jack Pickersgill, the Canadian Minister of Immigration, arrangements were made to bring the Sopron foresters and their families to Canada.

With the cooperation of the Powell River company, some of the students and faculty were settled initially in Powell River, while others came immediately to Vancouver. Few knew any English, and most found the ways of the new world strange and difficult.

But faculty and students soon came together on campus, and the synergy Dean Allen hoped would develop became fact. The majority of the students in the Sopron division of the Faculty of Forestry finished their degrees by 1961 and, along with the faculty, most stayed in BC to work in the forest industry or at UBC.

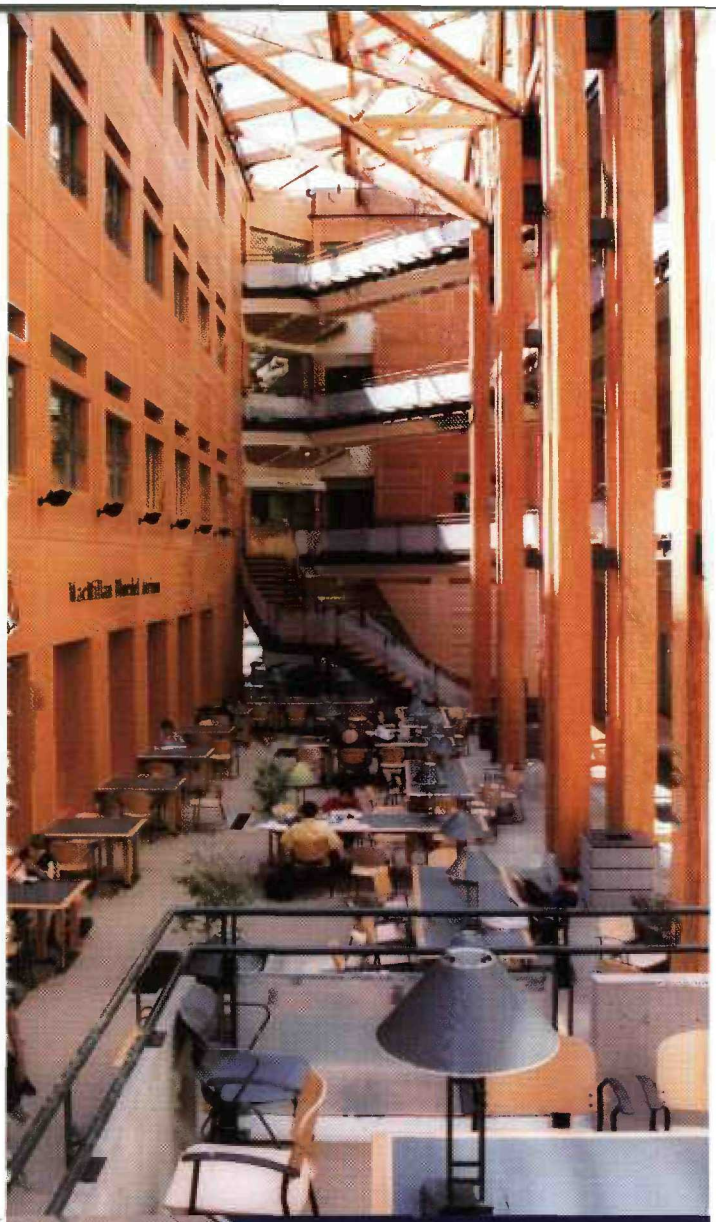
The addition of the Sopron foresters gave the faculty the boost it needed to develop rapidly. Partly because of that synergy, UBC's Faculty of Forestry has become one of the top forestry research facilities in North America.

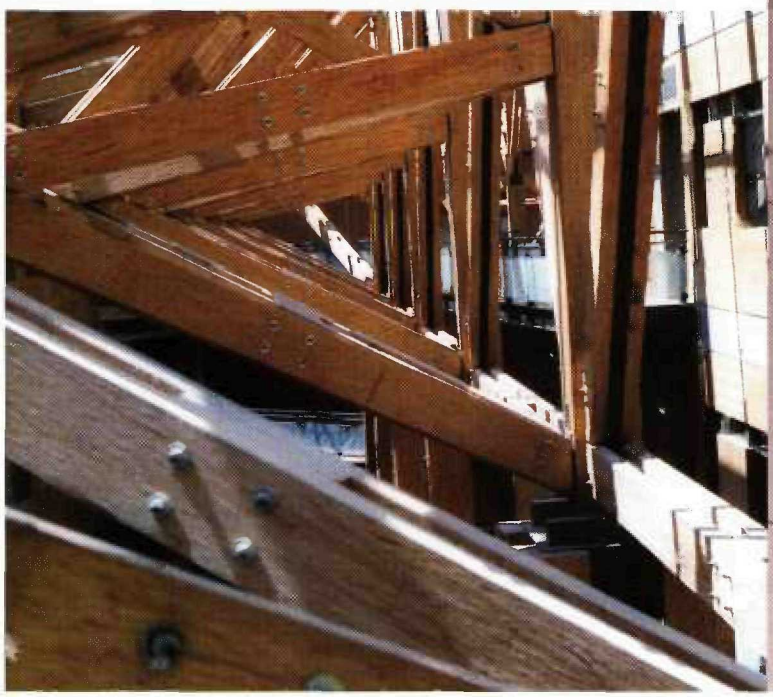
THE FOREST SCIENCES BUILDING

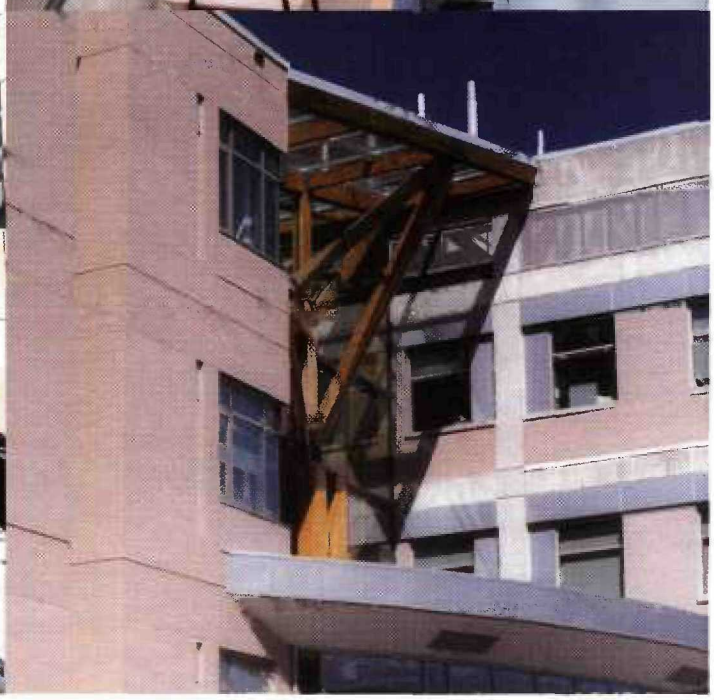
WHEN YOU STEP THROUGH THE DOORS of the Forest Sciences Building, you enter a state-of-the-art showcase of Canadian wood and advanced wood products. The most impressive features of the inner atrium are the clusters of Parallam beams that reach four storeys to the glass ceiling above. It's like walking into a mature forest with branches spread above, nearly obliterating the sky. You expect to hear birdsong and the quiet soughing of the breeze, high overhead.

The walls of the atrium are lined with sound-moderating medium-density fibreboard panels that are covered by a veneer of edge-sliced Douglas fir. The wooden seating benches and the stair trends to the second floor are solid Douglas fir.

The four-storey block next to the atrium houses research laboratories and offices for faculty, staff and graduate students. The upper three levels of this building are made of wood and engineered wood products. The building's designers had to prove several building code equivalencies to show how wood products did, in fact, bear weight and stresses as well or better than traditional building materials. ◆

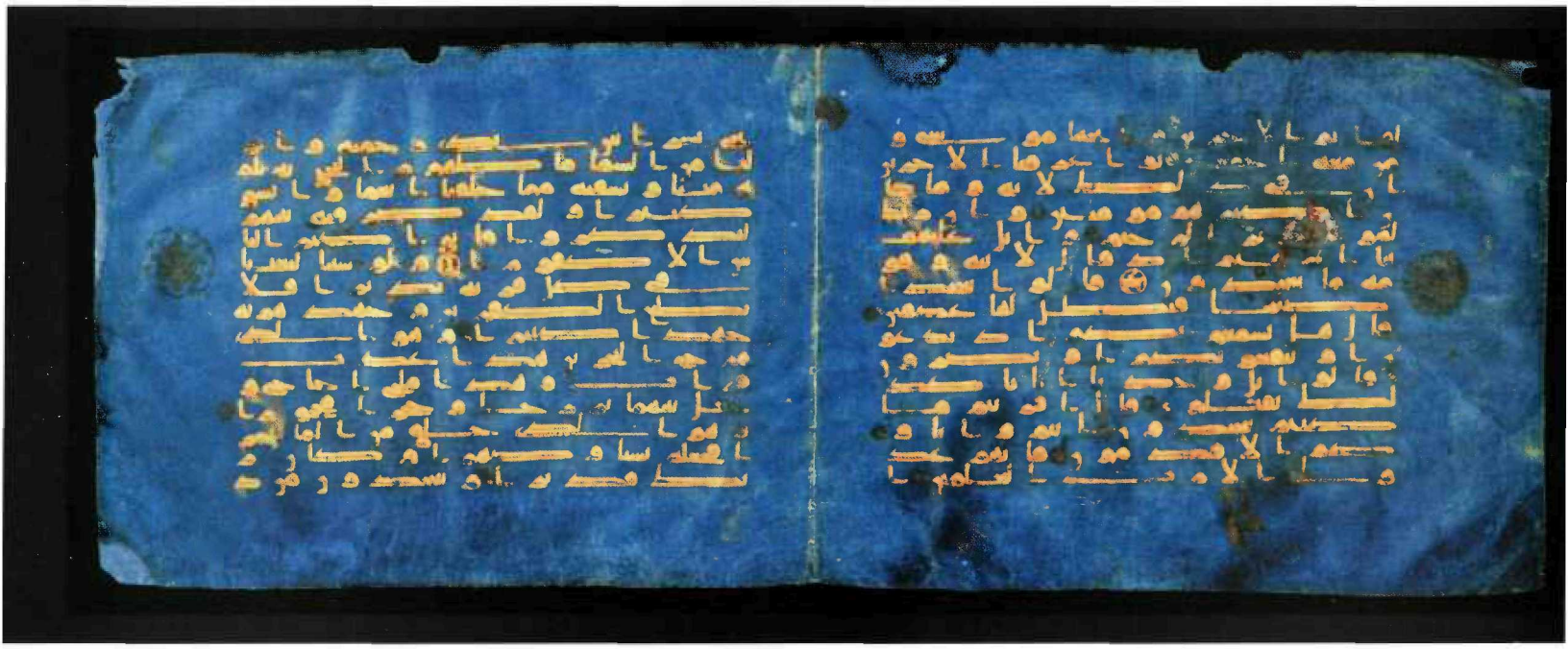






Photographs by Elizabeth Minish

ISLAM AND THE ART OF BEAUTIFUL WRITING



BY ELIZABETH NEGRAVE, MA'96

IN THE LATE 13TH CENTURY, the most eminent man in Islam was master calligrapher Yaqut al-Musta 'simi. He was celebrated for introducing a new method of trimming reed pens (he gave them an oblique cut), elevating the already-lyrical Arabic script to the articulation of ideal form. He had an unflagging devotion to his art. In 1258 the Mongols plundered Baghdad, but Yaqut refused to suspend his daily practice of copying out two sections of the Koran. Retreating to the top of a minaret he continued writing, while below him the city burned.

Another scene drawn from the warp and weft of lore takes place 250 years later, during the Ottoman rule of Sultan Bayazid II. The great calligrapher of the day was Shayk Hamdullah al-Amasi. Under his tutelage the Sultan tried to master the delicate art himself. Good handwriting is a serious skill: it can be a sign of moral rectitude, a talisman against pain. It is "spiritual geometry by means of a corporeal instrument." Thus the image of Hamdallah, bowing intently over his own gifted hand while the all-powerful Sultan — his admirer, obeisant — holds the inkpot as the master writes.

The fundamental characteristic of Islam is a passion for the written script, comparable to the Christian world's reverence for iconography. The central truth of Islam is the Divine Word, visibly revealed in the Koran as transcribed by the Prophet Muhammad. Calligraphy is both the medium of this truth and its aesthetic expression. It is the only universal art of Islam, the highest art, and it is the theme unifying a variety of objects on display at the UBC Museum of Anthropology's "Spirit of Islam" exhibition, which runs until May.

Jill Baird, MoA's curator of education and public programs, says the idea for the exhibition took shape two years ago. "There are 1.2 billion Muslims in the world, and in North America we don't know what Islamic histories and traditions represent."

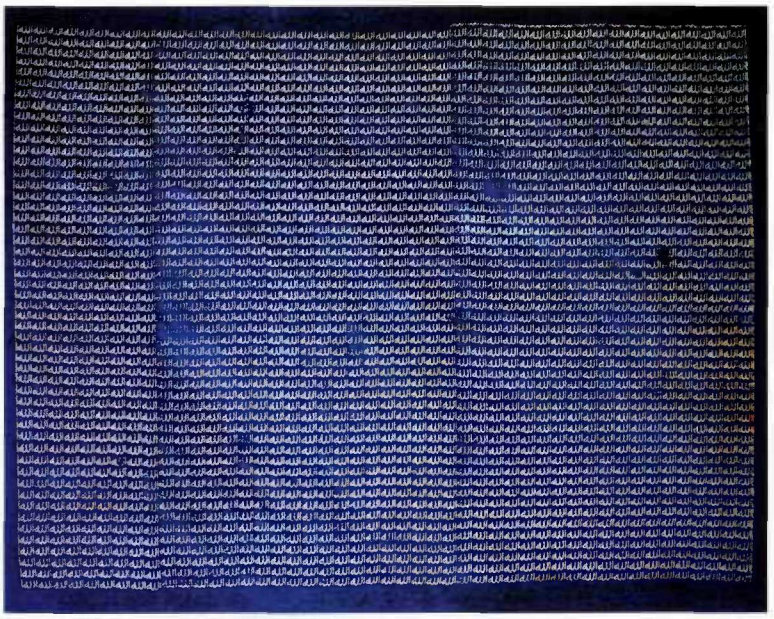
The exhibition's curator, Carol Mayer, chose calligraphy as the vehicle for raising awareness because of its importance in Islamic culture and because, as Mayer says, "few expressions can be interpret-

Astrolabe. Brass, used to tell time and locate celestial objects. Iran, 1388. *Left: The Blue Qur'an. Kufic script, gold on blue vellum. North Africa or Spain, 10th C.*

ed on so many levels."

The objects, many of them borrowed from the Nasser D. Khalili Collection of Islamic Art and the Institute of Ismaeli Studies in London, represent more than a thousand years of sacred and secular art. Each one is approached, says Mayer, as a portal into some aspect of Islamic culture.

But the objects have an extravagant beauty of their own, aside from their cultural connection: a mosque lamp, gilded, enameled and set with glass; furniture and a playing board that shimmer with intricate inlay of mother-of-pearl; silks and other textiles threaded with silver and gold.



"Handwriting is jewellery fashioned by the hand from the pure gold of the intellect," it is said. Ornamental details are curlicued, knotted, braided, foliated, floriated, interlaced and looped, embellishing the letters that, themselves, extend and conjoin in a kind of choral dance.

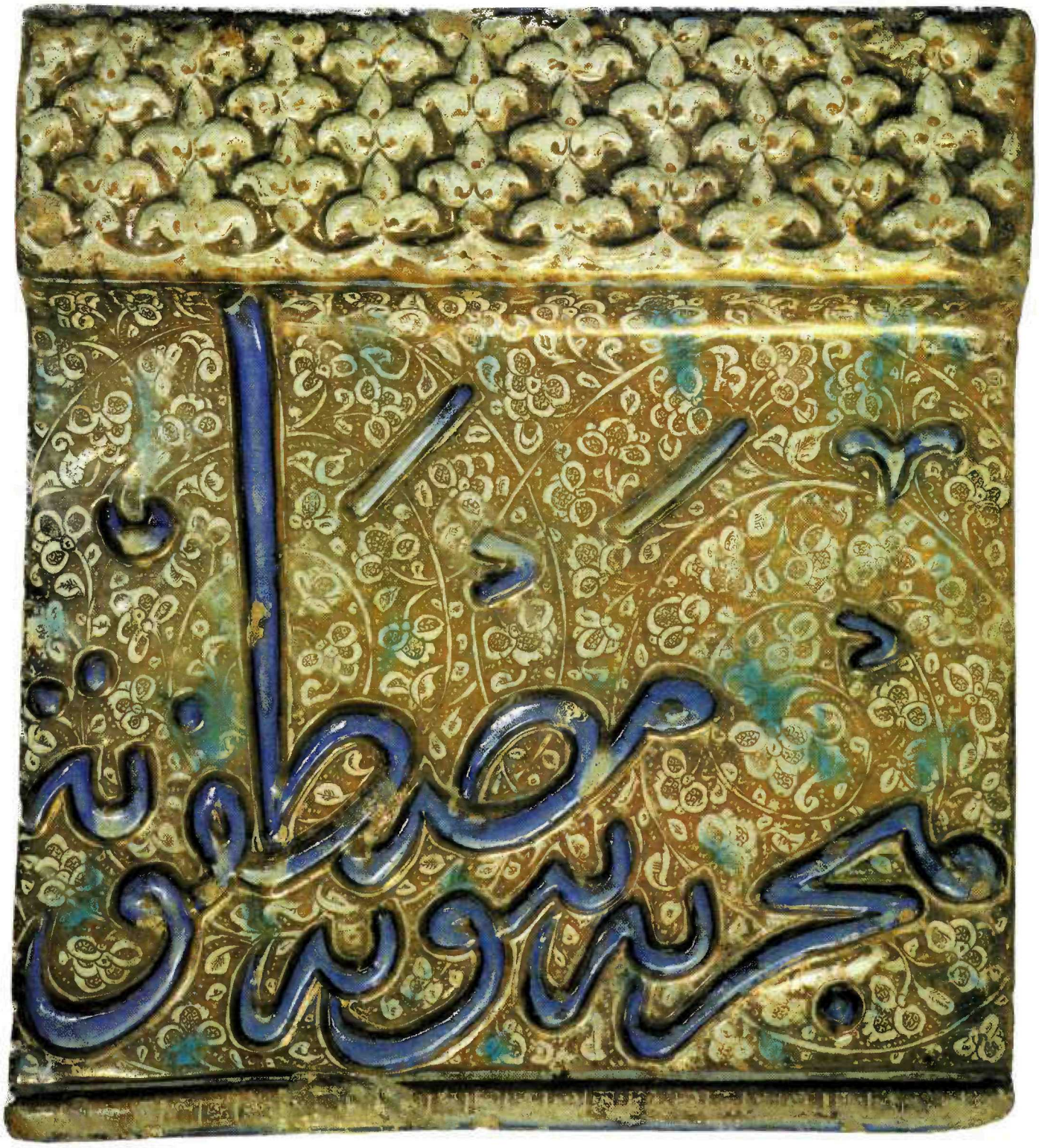
This fineness of gesture springs from an impulse to make the calligraphic text appropriately celebratory of the divine revelation which is its message, and to enjoin the viewer's gaze to penetrate more deeply the Divine Presence behind the Divine Word. Some of the most extraordinary examples of the art are illuminated Korans, laboured over with great care by master calligraphers.

Muslim ornamentalists have inscribed Arabic onto every conceivable medium: paper, vellum, textiles, metal, wood, ceramics, glass, stone and brick. Yet the forms of the script styles seem remarkably flexible. There are six main styles of Islamic calligraphy, four of which are featured in this exhibit. The *thuluth* style inscribed onto glazed tile mosaic from Pakistan retains the same fluvial motion as when embroidered onto a satin Egyptian textile panel for the place of pilgrimage at Mecca. This is because each style has been codified into a set of rules and proportions from which the calligrapher doesn't stray. The artist subordinates individual emotional and expressive qualities to a common aesthetic.

"It's a little bit different from the European view of art as only a representation of personal and unique experiences," says Mamoun Sakkal, a Syrian-born, Seattle-based artist whose "Bismillah / In the Name of God," a 1994 digital print included in the show, uses traditional *nasta`liq* characters. "To work with calligraphy you have to make the art as a traditional craft, absorb what is approved of as fine work, and work within those limits." At the same time contemporary calligraphers such as Sakkal are taking advantage of the more plastic quality of the script by using computer graphics. Sakkal achieves a three-dimensional composition using unconventional layering and colouring: "I can go beyond tradition because I can create a lot of designs that wouldn't have been practical in the past."

The artist subordinates individual emotional and expressive qualities to a common aesthetic.

Mayer likes the elusiveness of this lack of human representation. "It doesn't make it easy," she says. "It's not like a figurative piece where you can look at it and immediately make up your mind." The enigma leads to questions about what the work means. "If it's very beautiful, but you don't understand it, you might be curious to take the next step, and the next, and so forth towards understanding the spirit of Islam." ♦



Above: Tile. Thuluth script. Fired ceramic, late 13th C., Iran.

Opposite top: Calligraphic textile. Naskhi script, blue silk. North Africa, 18th C. Sitra.

Opposite below: Thuluth script, gold and silver thread on felt. Mecca, 1985.

LEARNING TO FLY

Graduation is a milestone that marks the end of one life phase and the start of another. For those students still searching for the right career path, however, graduation can seem more like a millstone. UBC's Arts Co-op Program means students can enrich their education and test out the world of work before ever leaving the campus cushion. BY VANESSA CLARKE

If Kurt Anderson were thrown from the edge of a steep cliff, he would probably try his hardest to fly. It's this positive attitude and determination that have been the International Relations and Commerce student's hottest assets during his time in UBC's Arts Co-op Program. From an office job where he didn't have a desk, to being handed responsibility for a multi-million dollar business relocations, Anderson has stared down from many metaphorical cliff ledges and has emerged a high-flier in the making.

For many fourth-year students, choosing the right career path is a dizzying prospect, but Anderson is confident about his future. He credits the co-op program with showing him the work opportunities available when he finishes his degree.

"At first, I was only considering work in international business," he says. "I planned to live in New Zealand for a year, then Taipei, then Honolulu. It still sounds tempting, but the co-op made me realize that there are a lot of interesting things right here in Canada." Three work terms organized through the program have also supplied him with contacts and mentors in the local business community, and impressive ink for his resume.

He wants to do his MBA in international business and aspires to the loftiest rungs of the executive ladder, but he has yet to commit to an industry or a location. In the meantime, life is crammed to capacity. Since spring, Anderson has taken three correspondence courses on top of an already gruelling student workload, started his own consultancy business, proposed to Deborah (a student at Regent College on campus), prepared for their August wedding, taken classes in Spanish and Hebrew, and become treasurer for the Arts Co-op Students Association. Whatever industry he eventually chooses, Anderson's future looks as rosy as the cheeks of a blushing newlywed. "For me, the co-op program turned a four-year degree program into a five-year one," he says, "but I can't imagine taking a degree without it."

Anderson has had positive outcomes from all his work terms. A job with the Department of Indian Affairs' Litigation Management branch led to him starting his own business as a consultant providing research and analysis on a contractual basis for the department over the summer. During another placement he discovered an interest in human resources management while designing and researching a database now used by more than 85,000 Pacific region employees in the Department of Fisheries to find training and development opportunities.

Anderson's current position with the Vancouver Economic Development Commission, however, is perhaps his most satisfying experience to date. The organization's mandate is to promote economic development for the city of Vancouver, to serve as a link between City Hall and the business community and to be a vehicle for leadership in the definition and realization of Vancouver's economic potential. As information officer, Anderson's job is to respond to enquiries from businesses ranging from multinational corporations to local entrepreneurs, and find data about Vancouver they need for decision making. Often, he deals with clients considering relocation, so he sells Vancouver as the most desirable option. His work is research-intensive, and has included compiling background business and economic information for large studies, quarterly reports, funding proposals executive presentations, media releases and more. Essentially, he performs public relations and economic research, a job description with a lot of prestige attached to it among people in the field.

For its part, the Commission has found a motivated student in Kurt, and an ongoing source of enthusiastic employees for short-term projects in the program. The recently appointed director of the VEDC, Linda Thorstad, a UBC alumna herself and former president of the UBC Alumni Association, is pleased with the arrangement.

"The partnership has worked out well," she says. "We threw Kurt off the deep end and his performance has been very good." For Kurt, his job with the Commission has surpassed all of his expectations. "I didn't expect to been given so much responsibility," he says. "It couldn't be better."

Just as Kurt would suggest the co-op program for students wishing to enrich and add value to their education, Linda Thorstad wouldn't hesitate in recommending it to other employers. "It's been a favourable experience for us," she says. "Kurt has brought a range of skills to the position above and beyond our expectations. He's been a real asset to the organization. He's thoughtful, considerate and a good performer. The only negative aspect is losing him at the end of the placement."

Vanessa Clarke is assistant editor of ***Trek****. For information on how you can hire a co-op student, call Julie Walchli at 604-822-4223.*

Chronicle

The University of British Columbia Alumni News | Winter 2002

UBC ALUMNI

THE ARTS

UBC LIBRARY

Chung Collection
This remarkable selection from the 25,000-item collection shows, through travel posters, diaries and photographs, new perspectives on Chinese immigration to Canada. The exhibit centrepiece is a four-metre-long model of the Empress of Asia. At Main Library Chung Collection and Reading Room, on permanent display.

BELKIN ART GALLERY

UPCOMING EXHIBITIONS

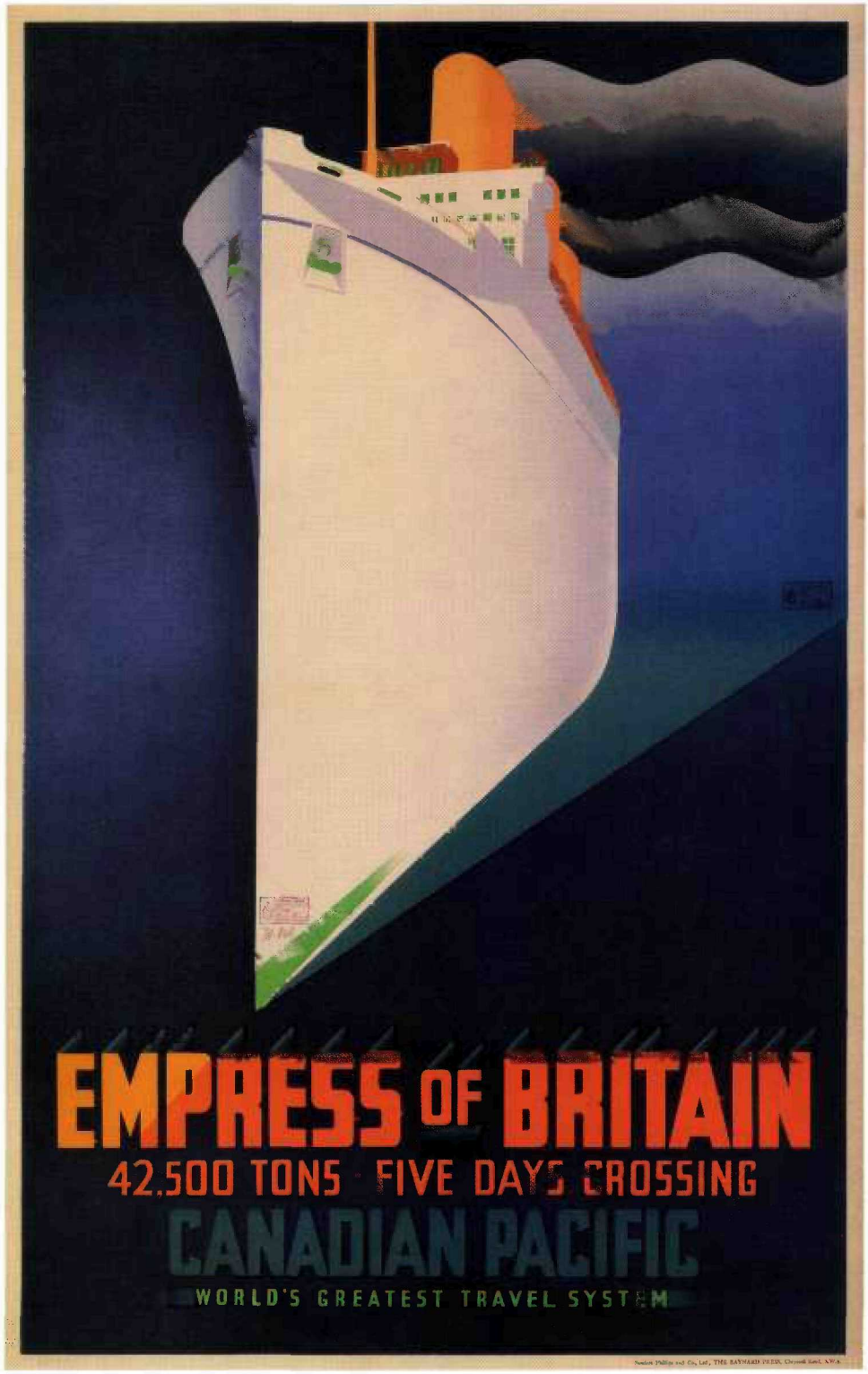
Andrea Fraser
Jan 11 - Mar 10
New York based artist's video/performance works.

Art of the Great Proletarian Cultural Revolution, 1966-1976
Mar 22 - May 26
Propaganda arts of the Chinese Cultural Revolution. Examines the impact of these images in the West.

MUSEUM OF ANTHROPOLOGY

ONGOING EXHIBITIONS

Dempsey Bob:
The Art Goes Back to the Stories
Through December 2002, Theatre Gallery
An exhibition on the work of Tahltan-Tlingit artist Dempsey Bob, featuring three of his most recent bronze sculptures. The exhibit is complemented by a sourcebook developed by Dempsey's daughter, Tanya Bob, in 2000.

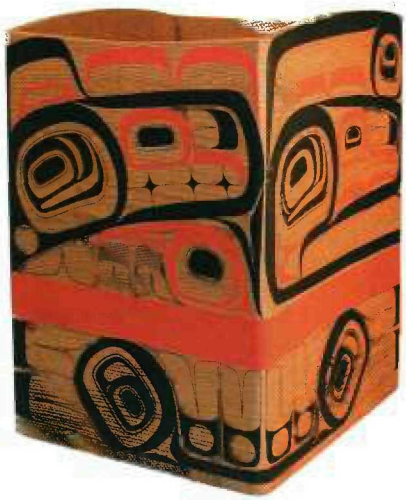


Travel Poster
One of the Canadian Pacific posters on display at Main Library's Chung Collection

Photograph courtesy: UBC Library

A Connoisseurs Collection: Chinese Ceramics from the Victor Shaw Donation
Through February 2002, Gallery 5
More than 70 ceramics from a much larger collection of Chinese antiquities.

The Spirit of Islam: Experiencing Islam Through Calligraphy
Through May 12, 2002, Galleries 8, 9, 10
The exhibition will present a selection of outstanding examples of Islamic art and calligraphy from different historical periods. Includes two interconnected galleries housing a prayer space and an educational space.



Photograph courtesy: Museum of Anthropology

Continuing Traditions
Through April 30, 2002, Gallery 3
An exhibit module focusing on the evolution of Coast Salish basketry over the past fifty years. Prepared by UBC graduate Sharon Fortney (as part of her MA program) in collaboration with Museum staff and representatives from the Squamish, Klahoose, Stlatlimx, and Nlakapamux First Nations.

UBC SCHOOL OF MUSIC

Pacific Spirit Concerts
UBC Music Building, Recital Hall, $20 / $10 at the door:
Sunday Jan 13, 3:00 pm:
Julia Nolan, saxophone, Rita Costanzi, harp

Thursday Feb 7, 8:00 pm:
Seymour Lipkin, piano

Sunday Feb 17, 3:00 pm:
Fantastic Music for Winds, featuring UBC wind faculty

Wednesday Noon Hours (12:00 pm, UBC Music Building, Recital Hall, $4.00 at the door)
Jan 16:
A Trombone Among Friends
Jeremy Berkman (trombone)
Hyperion String Quartet

Jan 23:
Marc Destrubé, violin, Janina Kuzmas, piano, John Corigliano: Violin Sonata

Jan 30:
Mei Han, zheng
Randy Raine-Reusch, various instruments

Feb 6:
Brenda Fedoruk, flute
Terence Dawson, piano, Heather Hay, cello
Crumb, Pleyel & Martinu

Feb 13:
Clariphony
Wes Foster, Nicola Everton, Cris Inguante: clarinets
Mozart, Prinz & Forsyth

Feb 27:
Jean Guy Boisvert, clarinet
Boulez, Perron & Lemay

Friday Noon Hour @ Main (UBC Main Library, Rm 502, 12:00 pm, free)
Jan 18:
Inspired by Goethe!

Feb 15:
Chinese New Year Concert, UBC Chinese Ensemble

Masterclasses
(UBC Music Building, Recital Hall)
Sunday Jan 27:
Masterclass with **Ben Heppner**
1:00 - 4:00 pm, $10 / $5 at the Door
Friday Feb 8, and Saturday Feb 9:
Piano Masterclass with **Seymour Lipkin**
7:00 - 10:00 pm (Fri) 2:00 - 5:00 pm (Sat)
$5 / $3 at the door

Borealis String Quartet
(UBC Music Building, Recital Hall, 8:00 pm, $ 20 / $10 at the door)
Thursday Jan 17:
Robert Silverman, piano
Beethoven & Brahms

THE CHAN CENTRE

Vancouver Symphony Orchestra:
Friday & Saturday Jan 18, 19, 8:00 pm
Bernard Labadie, conductor & Stewart Goodyear, piano
Mozart: Serenata Notturna; Piano Concerto No. 21 and Symphony No. 40

Christian Tetzlaff, violin & Leif Ove Andsnes, piano
Sunday Jan 20, 3:00 pm
Co-presentation by the Chan Centre and the Vancouver Recital Society

UBC Symphony Orchestra
Thursday Jan 24, 12:00 pm (free)
Friday Jan 25, 8:00 pm (free)

Ben Heppner, tenor
Saturday Jan 26, 8:00 pm
"Music at the Chan" Series presentation.

Quartetto Gelato
Saturday Feb 2, 8:00 pm
A classical cabaret with charm, wit and sophistication. "Music at the Chan" presentation.

Paul Lewis, piano
Sunday Feb 3, 3:00 pm
Presented by the Vancouver Recital Society

Vancouver Symphony :
Friday Feb 22, 23, 8:00 pm:
Vladimir Spivakov, conductor and violin

Estonian Philharmonic Chamber Choir
Sunday Feb 24, 8:00 pm

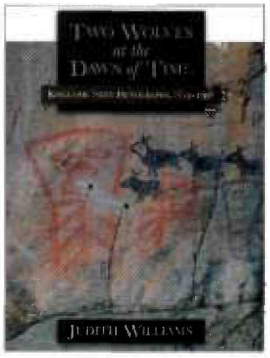
UBC Symphonic Wind Ensemble
Thursday Feb 14, 12:00 pm (free)

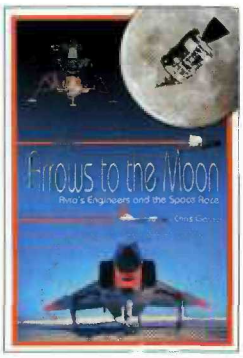
Small Ensemble Showcase
Friday Feb 8, 8:00 pm

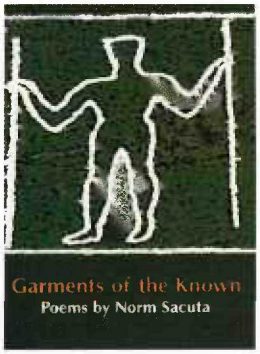
Andrew Dawes, violin, Jane Coop, piano
Sunday Feb 10, 3:00 pm
Beethoven Violin Sonata Cycle Pt 2

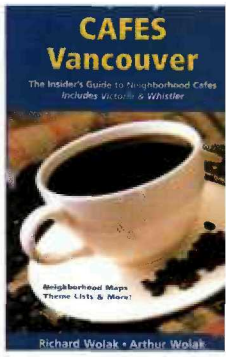
Ben Heppner
UBC Music Building, Recital Hall
Sunday Jan 27, 1:00 - 4:00 pm

BOOKS









Fibromyalgia and Female Sexuality
Marline Emmal MA'79
Trafford, $14.95

This book is an open discussion of female sexuality and fibromyalgia and how victims of the disorder can maintain healthy sexual relationships. Dr. Emmal, herself a fibromyalgia sufferer, provides friendly advice on how to manage the disorder through different stages of the female lifecycle: intimacy, menstruation, pregnancy and menopause. She touches on issues like pain control, believing that if a sufferer understands how her sexuality relates to the condition, she will be more equipped to deal with its manifestations. The book is also recommended for the partners of fibromyalgia sufferers. Call 888-232-4444.

Bogman's Music
Tammy Armstrong BFA'98, MFA'2000
Anvil Press, $13.95

An accessible collection of poetry touching on themes of childhood, family, love and faith. A section of the book was shortlisted for the Acorn Rukeyser Chapbook Contest and "A Proper Burial for Songbirds" came third in the League of Canadian Poets National Poetry Contest. Evocative imagery draws the reader in and plays on the commonality of human experience.

With Averted Vision
Hannah Main-van der Kamp BA'70
The St. Thomas Poetry Series

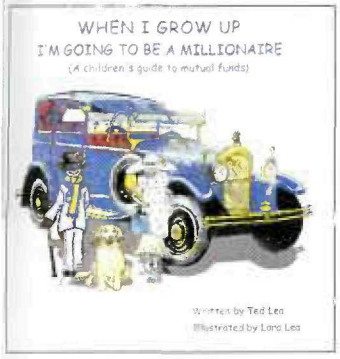
A book for the soul, this collection of poetry emphasizes the metaphysical and philosophical dimensions of life. Main-van der Kamp's poetry is alive with images of nature and layered with spiritual references. It is one of a series published by St. Thomas' Church and reflects the religious meaning of experience. The collection is Main-van der Kamp's third. She has also published *A Gift of Ruin* (Netherland Press, $19.95) and *The Parable Boat* (Wolsak and Wynn, 1999).

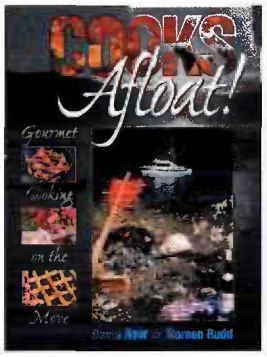
When I Grow Up I'm Going to be a Millionaire (A Children's Guide to Mutual Funds)
Ted (Edward) Lea BSC'74
Illustrated by Lora Lea
Trafford, $10

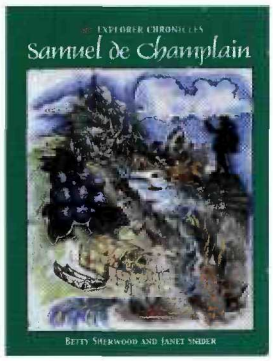
This book encourages children to start saving for the future. The subject matter is made more appealing with pictures and takes the form of a story with two children as the main characters. The author says he wrote the book because he was unable to find an existing one on investment in mutual funds for children that was aimed at kids rather than their parents. The financial concepts are simply explained and will foster an understanding of the basics and perhaps an earlier sense of financial responsibility.

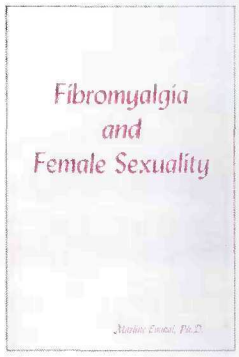
Arrows to the Moon: Avro's Engineers and the Space Race
Chris Gainor BA'79
Apogee Books, $28.75

The Avro Arrow was the most advanced jet interceptor of its time, and promised to help create a dynamic, home-grown industry. Aerospace engineers came from all over the world to join the Canadian team at Avro Canada, making that company's talent pool one of the richest of its type in the world. But the program was shut down in 1959 after the Soviets launched Sputnik and the Americans began the space race. More than 40 years after the fact, the termination of the Avro Arrow is still controversial. Many of Avro's









top engineers went south to join NASA, and became an integral part of team that landed astronauts on the moon in 1969. This book recounts the stories of those Avro engineers, many of whom had come to Canada from England.

Cafés Vancouver
Richard Wolak and Arthur Wolak BA'90, DIP(ART HIST)'94
Arelco Promotional Group Inc. $17.95
Coffee houses and cafés seem to be opening on every corner in the Vancouver, Victoria and Whistler areas. The Wolaks provide a timely guide to help you decide where the best caffeine dens are to be found. Whether you're into poetry slams and live music or just seeking a quiet place to read the newspaper, this book provides maps featuring more than enough cafés to choose from. A brief description is provided of the food and beverages on offer, the ambiance and the clientele.

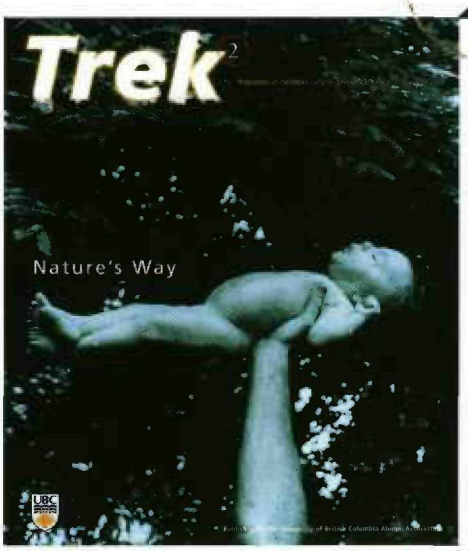
Garments of the Known
Norm Sacuta MFA'88
Nightwood Editions
Sacuta's poetry is clean and intelligent, addressing issues of love and sexuality from a gay perspective. Loneliness and loss exist side-by-side with eroticism and wonder, and we can experience both the pain and the joy of human interaction. Ranging in setting from the English countryside to the Canadian prairie, the poetry is intense but accessible.

Cooks Afloat!
David Hoar BSC'66 and Noreen Rudd MD'65
Harbour Publishing
Here's a book that caters first and foremost to gourmet-loving sailors, but if you're a seafood fan or ever find yourself cooking in cramped spaces with limited utensils (on a camping trip, for example), then it will also hold appeal. The authors spend a lot of time on their boat and over the years they've gathered and invented recipes inspired by the abundance of natural food they've found along North American waterways. Wild huckleberries, clams and rock-scallops are some of the typical ingredients found in these recipes. The book is spiral-bound so it can be laid flat. A tasty addition to the camping or boating gear.

Two Wolves at the Dawn of Time: Kingcome Inlet Pictographs, 1893 – 1998
Judith Williams
New Star Books Ltd., $29.00
Williams provides a documentation of the 1998 creation of a pictograph on a rockface in the Kingcome Inlet on the BC coastline and how it relates to one painted in 1927 by Mollie Wilson, 100 metres away at Petley Point. The Petley Point pictograph represents a political history of the area, and commemorates a potlatch that the Dzawada'enuxw people held after the department of Native Affairs had placed a ban on Native ceremonies. The book examines the history of the area and the enduring culture of its people, in the wake of the white settler.

Samuel de Champlain (Explorer Chronicles)
Betty Sherwood BA'64 and Janet Snider
Canchron Books, $17.95
This book is aimed at children in grades five through eight, and depicts the life of Samuel de Champlain, founder of New France. Champlain tells his life story in the first person and the book is crammed with large, colourful illustrations. It is easy to read, entertaining and educational, turning history lessons into a choice, rather than a chore.

2



Dear Editor:

The summer edition of *Trek* slid through my letterbox in Winchester, England, like a long-lost friend. How delighted I was to receive such a splendid, easy-to-read issue with such a diverse collection of articles and the introduction of a unique short story.

Though I occasionally visit Canada House in London, my links with UBC have gradually diminished. Now, through the pages of *Trek*, I feel reunited. I value the opportunity to read about the work of colleagues I have known at UBC and look forward keenly to the next edition.

Congratulations and all good wishes for your long and happy editorship.

Barbara Large BA'54, MBE

PRECIOUS MEDALS

The Summer issue of *Trek* had Don Wells lamenting about the results at the Olympic Games ("Precious Medals"). He writes about amateurs, but many of the athletes are not really amateurs at all. They may not be overpaid professionals, but the Baileys of the athletic world spent most of their time practising their sport and earn most of their money with it. Perhaps the word amateur has lost its previous meaning as a sports person who was not paid for practicing the sport. Holding to the present fiction may lead to misguided lamentations.

Bert den Boggende MA'75

The article "Precious Medals" in the *Trek* Summer 2001 edition reinforces my contention that the goal of maximizing a country's Olympic medal count is inconsistent with the goal of optimizing its population's overall participation in sport and other healthful activities. To win medals requires the concentration of resources on elite athletes from the earliest age possible, to the exclusion of less promising ones. This idea is expressed in the article by volleyball coach Doug Reimer, who says "...we need to be able to identify the best at a younger age, and then be able to supplement their training with junior national team programs with full-time coaches." Although the article does mention the theory that expansion of opportunities overall at the grassroots level might reflect in more top athletes being produced, it then goes on to suggest that Canadian taxpayers would not be willing to support such an approach. This Canadian taxpayer, for one, would much prefer to support a national program of health and participation than to contribute to an Olympic program that says nothing about our nation's overall athletic ability.

Warren Forrester MSC'61

LAMENTING THE HUTS

The picture of the army huts published in the Summer issue ("Hopwood's List") brought back a flood of memories of my time at UBC immediately after World War II. I spent a good deal of class time in these huts along the West Mall. My "office" as a graduate assistant was in one of the huts behind a great cupboard of geological specimens. In looking back I am impressed by the amount of hard work and inspired improvision that went into providing a great number of veterans with a quality education. The physical surroundings are not near as important for a quality education as are the faculty that teaches and inspires and the books that are held in the library. Are there still any of the huts left? There should be at least one preserved as an historic site.

Gordon Taylor BA'49, MA'50

THE AFGHANI DOCTOR

I read the article on Dr. Qayumi in the Summer issue and was greatly impressed by his commitment to positive human values and his dedication to teaching. At the same time, it left me greatly concerned for both his and his family's safety. I worry that they have been or will be threatened because they are originally from Afghanistan. God forbid we have another witch hunt like that during the Second World War when Japanese-Canadians were treated so unjustly. As concerned citizens, I ask all UBC alumni to be vocal and call upon governments in Canada and around the world to protect the rights of those who are not responsible for the deadly terrorist attacks on September 11 and not turn a blind eye if the public tries to mete out vigilante-style "justice" on its own. May people everywhere recall the wrongs of their

past and present governments and speak out against terrorism whether committed by clandestine groups and/or sanctioned by the state. Feigned innocence or ignorance is not good enough anymore.

I would appreciate you kindly expressing my concern to Dr. Qayumi and his family and tell him I am proud to know that Canada and UBC are the home of such a compassionate and dedicated educator.

Heather Souter BA'00, Tokyo

CORRECTION

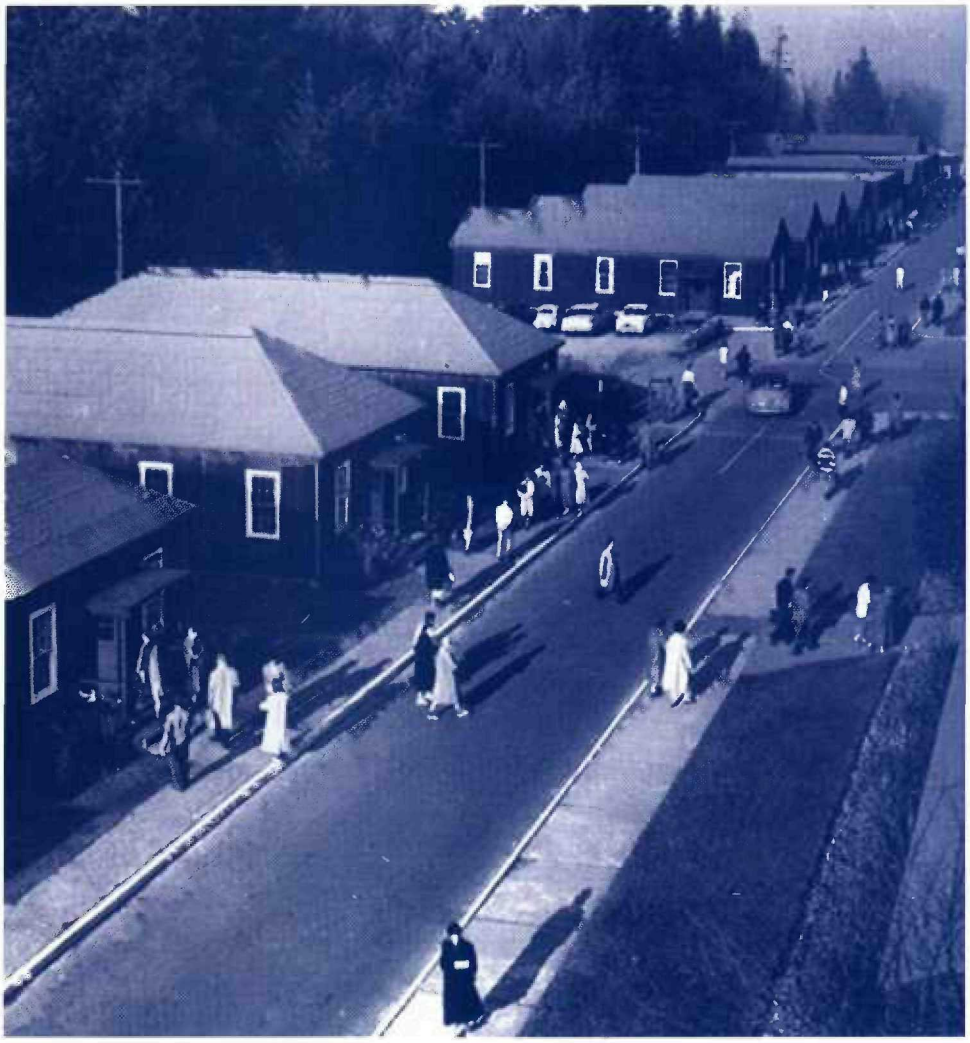
A note to thank you for the lovely tribute to Fiona and Richard Deane in the summer 2001 edition of *Trek*. Both were good friends of mine during our time at UBC, 1929-33. If I remember correctly, Richie graduated with the rest of us in '33 and his brother John graduated in '34. The picture you have is, I am almost certain, brother John and not Richie.

I enjoyed the magazine and look forward to future copies.

Jack Currie BSC'33

Richie Deane

Regrettably, a picture published in the In Memoriam *section of our second issue was of brother John. Please accept our apologies. Ed.*



HOPWOOD'S LISTS

I enjoyed the article on Professor Hopwood. I too recall this English course for Engineers, but I don't remember my lecturer's name. I do remember some of the books however: Remarque *All Quiet on the Western Front*; Camus *The Plague*; Malraux *Man's Fate*; Dostoyevski *The Possessed*. I don't remember the rest, but I recall the stimulating class discussions on the political issues raised in the books. And much to my surprise I got 93% in the Christmas exam and a first for the year, when I only ever managed a 'B' in high school and a second in English 101! A lot of credit must go to the lecturer in my course.

Peter Herke BASC'63

"Hopwood's List" reminded me of an experience I had at UBC during the completion of my BED. Professor David Wangler provided a similar list of wonderful books and movies to our educational sociology class. Today this list is still tacked to my refrigerator.

His class inspired a life long passion in classic and educational literature. No other teacher in my educational career has had such a profound effect on me. His teaching strategies and passion for literature have become the cornerstone of my teaching philosophy. Thanks for the article and for creating a thought-provoking magazine.

Rocco Marchese BED'00

CLASS ACTS *Find out who's doing what and where they're doing it . . .*

Class Acts are submitted by UBC alumni of all years who want to stay in touch with former classmates. Send your info to *vanessac@alumni.ubc.ca* or mail it to our offices (see page 2 for the address). Include photos if you can, and remember, we'll edit for space.

40s

Josie Durkin (Kennedy) BA'40 of Laguna Woods, California, plays badminton and tennis daily. She and husband Dr. Jim Durkin recently participated in the San Diego Senior Olympics in badminton and came home with several gold medals.

50s

Barbara Nelson Large BA'54 was awarded an MBE in the Queen's Honours List, which was presented at the investiture at Buckingham Palace last October in recognition of her developmental work in education in HM Prison Service, The Home Office. She is a writer and senior lecturer in creative writing, a member of the Standing Committee for Writers in Prison of The Arts Council of the UK, an independent governor of Southampton Institute (the largest non-university higher education organization in the UK), director of the Annual Writers' Conference, now in its 22nd year, and Fellow of the Royal Society of Arts ... **Carl and Doreen Knutson** (O'Grady) BSC(PHARM)'50 (both) celebrated their 50th wedding anniversary on November 9, 2001. Not long after graduating from UBC, the couple moved with their young family to Castlegar where they owned and operated the local drugstore. They continued their work in pharmacy until retirement, when they sold the business and dedicated more of their time to leisure pursuits. Now they enjoy curling, watercolour painting and travel. They particularly enjoy visiting their grandchildren, who are based as far afield as Nova Scotia, Florida and London, England. Both are active members of the community — Dorothy founded a theatre group and served for many years on the Arts Council, while Carl used to be an alderman in (now defunct) Kinnaird. All three of their children followed on in the family tradition by graduating from UBC.

Linda Thorstad BSC'77, MSC'84 became executive director of the Vancouver Economic Development Commission, in June. The organization's mandate is to promote economic development in Vancouver and provide a link between City Hall and the business community.

She brings to the position skills in strategic planning, performance assessment, business and organizational development, sustainable development, communications and government relations.

Linda Thorstad, **accepting a bouquet at this year's Alumni Association AGM. Linda served a two-year term as the Association's president.**

Linda has served on countless boards and associations including Science World, BC's Women's Hospital Foundation, BC Heritage Rivers, and the Arts Board. She is a founding member of the Canadian Council for Professional Geoscientists. In 1996, her accomplishments were recognized by the YWCA Woman of Distinction Award for Management and the Professions.

She also served as president of the UBC Alumni Association and is currently vice chair of the UBC Board of Governors.

60s

Peter and Dianne MacLaurin (McBride) BED'67 (both) retired from teaching in July. They have worked in a number of BC school districts including Prince George, where they worked for 21 years. Peter taught Senior English for 10 years and was a high school counsellor for Native students for 20 years. Dianne was a teacher-librarian (elementary and secondary) for 21 years. They are happy to retire to their beach house on Quadra Island, close to their children and grandchildren in Victoria and Seattle.

70s

Don Alper PHD'76 received a Civic Educator of the Year award in July for co-founding and heading a political issues seminar at Western Washington University, involving both teachers and politicians. He is director of the Canadian-American Studies Program at Western ... **Steve Davis** BASC'78 has recently been elected president of the Independent Power Producers of BC ... **Rob Marris** BA'76, MA'79 drove a bus for Metro Transit until 1982 when he returned to the UK to study Law, qualifying in 1987. From 1988 to 2001, he was a trade union lawyer. In 1984 he moved back to his home town of Wolverhampton (near Birmingham in the West Midlands), where he and partner Julia still live. In June 2001, he was elected Labour MP for the riding of Wolverhampton South West ... **Brian J. McParland** BASC'79, MSC'81, PHD'85 now resides in Chesham, England, with wife Sharon and daughters Siobhan and recent arrival Aine. Brian is a principal research and development scientist in radiation physics with Amershan

Laboratories ... **C. David Nixon** BCOM'79 received the Governor General's Gold Medal for academic achievement last fall, for his MA thesis *Resolving Human Rights Complaints in a Unionized Environment: A Blueprint for Reform*. The thesis was a requirement of Royal Roads University's Master of Arts Program in Conflict Analysis and Management.

80s

Sean Blackburn BA'89, his spouse Julie Dagenais Blackburn, and son Nicholas are pleased to announce the birth of Stephan on November 24, 2000. Sean works as taxation manager for Metropolitan Life Insurance Company. Ottawa is home now, but the couple would love to hear from their Salish friends ... **Shelagh Martinusen** BSC(PHARM)'86 and husband **Dan Martinusen** BSC(PHARM)'87 welcome the arrival of Kevin Norman, a little brother for Christina (born March 1999). Kevin Norman was born on November 6 in Victoria.

90s

After UBC , **Megan Gilgan** BA'96 attended the London School of Economics to study for her Masters. She is now working in Kosovo with the Kosovo Local Initiatives Project (KLIP), a $3 million program that funds local groups carrying out community projects. She will also run the Canadian International Development Agency's support program, responsible for providing logistical, administrative and other support to Canadian organizations working in Kosovo ... **Nurez Khimji** BA'92 has been appointed chief financial officer for Marine Bioproducts International, a company that produces materials used in DNA research ... **Sanjay R. Parikh** BSC'91, MD'94 just completed his fellowship in pediatric otolaryngology at Harvard Medical School and is now the director of Pediatric Otolaryngology at the Albert Einstein College of Medicine, New York. ◆

IN MEMORIAM

Raymond Arthur Gaudet BED'81 on June 12, in Kelowna, after a successful career as a teacher and administrator ... **George R. Gregory** BSC(AGR)'51, BED'63 of Ottawa, ON, January 10 ... **Daniel Goldsmith** BA'54, LLB'55 on February 7 ... **George R.A. Howey** BASC(CHEM ENG)'49, MASC'51(CHEM ENG), (PENG), FCNS of Deep River, ON, May 2. George was a retired executive of Ontario Hydro, Nuclear Branch ... **Toby "Big Tobe from over the Globe" Malkin** BCOM'56 of Fanny Bay, BC, September 20 ... **Kenneth Donald McInnes** BA'51 of Summerland, BC, May 17. Kenneth was a high school teacher. During the war, he served in the Canadian Army ... **Nancy McMinn (Wallick)** BSC(AGR)'48 ... **Dr. John Robinson** BSC(AGR)'44 of Keswick Bridge, NB, August. John taught for many years in New Brunswick. After retiring, he started a very successful Christmas tree farm. ◆

Alternate Routes to Computing

A program offered by the Department of Computer Science
University of British Columbia

ARC
Alternate Routes to Computing

- Are you thinking of making a career change?
- Are you thinking about a career in Information Technology?
- Are you looking for an education program that will equip you with the knowledge you need to turn this aspiration into a reality?

ARC is a 28-month post-baccalaureate diploma program combining 16 months of academic computer science courses with an 8 or 12 months co-op work experience. It is designed for people with an excellent record of academic achievement in any field but with little or no programming experience.

Features of the ARC program:

- Small class size;
- No high tuition fees. The fees are the same as those paid by other undergraduate students;
- Industry experience;
- Welcome students from a wide range of academic backgrounds, e.g. humanities, science, education, engineering, business.

For more information, visit our web site
www.arc.cs.ubc.ca
or email undergrad-info@cs.ubc.ca.

Wanted, Excellent Teachers!!

FACULTY OF APPLIED SCIENCE UBC KILLAM TEACHING PRIZE

The University is again recognizing excellence in teaching through the awarding of teaching prizes to faculty members. Two prize winners from the Faculty of Applied Science will be selected for 2002.

ELIGIBILITY: The prizes are open to full-time tenure-track faculty in Architecture, Engineering or Nursing who have five or more years of teaching experience at UBC.

CRITERIA: The awards will recognize sustained teaching accomplishments at all levels at UBC, and will focus on those faculty who have demonstrated that they are able to motivate students and are responsive to students' intellectual needs, or have developed innovative laboratory or lecture materials.

NOMINATION PROCESS: Students, alumni or faculty members may nominate candidates to the head of their department, the director of their school, or the head of the unit in which the nominee teaches. Letters of nomination and supporting information may also be sent directly to:

Prof. Nemy Banthia
Chair,
Killam Selection Committee 2001-2002
Department of Civil Engineering
The University of British Columbia
Vancouver, BC V6T 1Z4

E-mail: banthia@civil.ubc.ca
Tel: 604-822-9541

DEADLINE: January 11, 2002

WINNERS: Winners will be identified in early 2002, and will also be honoured during the Spring Convocation in May.

For further information about the awards, please contact the Dean's Office, Faculty of Applied Science, your department or school office, or the Selection Committee Chair.

Ellen Adams BSC'62, MA'64
Ellen was born in Toronto in 1941. Her degrees were in Zoology and she started her working life as a researcher in Biochemistry. She moved on to become a freelancer in feature film sound-editing. She loved working with her hands and soon added an AOCA(HONS) in General Design to her list of accomplishments. By the 1980s Ellen made a name for herself as a textile artist. She loved to travel, her adventurous spirit exploring much of North America, Europe, Australia, Japan, India and Nepal. Her art is displayed in collections in Canada, Europe and Japan. She died of cancer at home on her farmstead in Ayton, ON, July 17, 2001.

Dr. Philip Akrigg BA'37, MA'40
On February 8, 2001. George Philip Vernon Akrigg was born in Calgary in 1913. He received his PHD from the University of California in 1944. He taught English from 1941 and became a professor emeritus in 1979. Akrigg wrote a great deal of scholarly material, notably on Shakespeare, English literature and the the Renaissance.

Akrigg met Helen Brown Manning BA'43, MA'64 at UBC. They married and had three children — Marian, Daphne and George. After his retirement in 1978, Philip and Helen researched and wrote many books and articles about BC's history and the origins of its place names. In the classic, *1001 BC Placenames*, first published in 1969 and reissued many times thereafter, names like Elephant Crossing, Houdini Needles, Miniskirt, Tickletoeteaser Tower, and Why Not Mountain got the Akrigg research treatment. Philip leaves an invaluable and fascinating resource for historians and anybody wishing to learn more about BC's history.

Dr. H. Craig Davis
Craig began teaching at UBC in 1968 and was a professor in the School of Community and Regional Planning at the time of his retirement in 1998. He received his BSC from Purdue in 1959, and his MA and PHD from Berkeley. Craig was born on June 13, 1937, in Springfield Illinois and died on September 18, 2001, in his home from a heart attack. He is survived by his wife D'Anne, his children Ethan and Lauren and his grandchildren Brennan and Erin.

Dorothy Marie Dobson (Downing) BA'30
Dorothy died at her home on September 1, 2001, aged 91. Born in Brampton, Ontario, she moved to Vancouver at the age of five and later attended UBC. She was a charter member of Alpha Gamma Delta. She worked for North American Life and, in 1938, married George Dobson (1904-1994). The couple had three children, who were a source of great happiness for Dorothy, an only child.

During her active life, she enjoyed hiking and canoeing in the great outdoors. She was also interested in snowbirding and trailering. She liked to sing and square-dance and, up until February, she was an active member of her church and of the wider community.

Jerry Austin Macdonald BA/BCOM'50 (1926-2001). Jerry was very involved in student activities on campus. He served for two years on students' council where he was best known as president of the Literary and Scientific Executive, coordinating programs for 72 student clubs. He also headed the Social Events Committee, organized the first Fall Ball on campus and was instrumental in bringing the Vancouver Symphony to campus. He was a member of Sigma Tau Bhi, men's honorary fraternity and, as an enthusiastic member of MuSoc, he played clarinet and saxophone in the orchestra. In his final year, he was vice president of the National Federation of University Students seminar in the Netherlands.

Beyond his life at UBC, Jerry was just as illustrious. As president of Macdonald Consultants Limited, most of his business career was spent with the H.A. Simons Group. He travelled extensively overseas on business development for large capital projects primarily in South America and Eastern Europe.

As well as a lifelong dedication to education, he had a passion for music, a love of boating and skiing and special expertise in wine making. He was a member of the Royal Vancouver Yacht Club, Hollyburn Country Club and the Canadian Power and Sail Squadrons (AP). He leaves wife Nancy (Davidson) BA'49, son Ian, and daughters Patricia, Jocelyn and Karen.

Arthur James Martin BA'49 MA'51 of Parksville, BC, on June 16, 2001. After UBC, Arthur (sometimes known as Art, sometimes as Jim) worked as a research chemist with Monsanto in Vancouver and with Imperial Oil Ltd. in Calgary and Sarnia. He moved to Parksville on retiring, where he enjoyed many years of playing tennis, gardening and walking. His assorted fruit trees and large vegetable garden provided plenty for neighbours as well as family. His tennis partners and opponents will remember his strong forehand and his equally strong will to win.

Betty Helen McKercher (Morton) BA(HONS)'42
Betty was born on June 28, 1920, in New Westminster and died on October 1, 2001, in Nanaimo. Academic success at Edmonds Street School and Burnaby South High School led to UBC and a BA(HONS) degree in Zoology under the guidance of Ian McTaggart-Cowan.

Jobs for women biologists in the 1940s were rare, so she worked as a chemist for the Fisheries Research Board until marriage to fellow UBC graduate R. John (Jack) McKercher BSF'46, BCOM'45 led her into another of BC's resource industries — forestry.

The couple spent many years in isolated logging camps, principally on Vancouver Island, but later logged in the Ucluelet area. They established the first camp at Gold River and it was this operation that welcomed refugee forestry students from Hungary. In later life, Betty and Jack enjoyed providing hospitality to some of these foresters when they returned to BC for nostalgic visits.

Quieter years were spent in West Vancouver and ultimately, the couple returned to Vancouver Island where Jack died in 1997. Betty spent her last years in Nanaimo close to her daughter Leslie Heys BA'67 and three grandchildren – two more generations of UBC graduates.

Peter James McTavish BCOM'41
Peter was born in 1919 in Calgary, but was raised and educated in Vancouver. His career was broad-ranging, reflecting his many passions in life. Early on, he strove to succeed as a concert pianist, and received much recognition for his efforts. He met his future wife, Jean,

shortly before the war and they married in her home town of Seattle on February 6, 1945. In the forties, he was called on to join the Royal Canadian Army and served as an instructor in ballistics. A few months later he transferred to the Navy and served as a navigation officer.

After the war, Peter became a marine electronics expert at a Seattle marina. His love of boating lasted a lifetime. He stayed at the marina for eight years, took his family on summer cruises and was an active member of the Seattle Yacht Club. Shortly after becoming an American citizen in 1953, Peter's career took another turn and he worked in insurance brokerage until retirement.

Peter contributed much to his community through his fundraising efforts, membership on the board of directors for both the Seattle Symphony Orchestra and Planned Parenthood. He was mayor of Mercer Island for two years.

William H. Montgomery BA'56, LLB'59 died of a heart attack in April in London, England, aged 68. He was former deputy secretary-general of the Commonwealth Secretariat, Department of Foreign Affairs. From 1961, Bill worked for External Affairs. He joined the Commonwealth Secretariat in 1987 and remained there until his retirement in 1993. His main focus was on development, serving as managing director of the Commonwealth Fund for Technical Cooperation. Bill is survived by his wife, Julia, and their two children. Friends and colleagues remember him as an extremely likeable and capable man.

Peggy Isabel Sanders Nix (Light) BA'49
Peggy Nix thoroughly enjoyed her time at UBC, often regaling her daughters with tales of her antics alongside her inseparable chum, Mary Wellwood (D. 1979). She was a "Student vet," having served in the Women's Royal Canadian Navy between 1943 and 1946, achieving the rank of Leading Wren.

She lived in Arcadia Camp, worked hard at her studies, even taking on some summer courses, and won the Frances Willard Essay Prize ($50) in the late '40s. To make some money, she babysat for professors' children and washed dishes in the dining hall.

After graduating in 1949, Peggy went to Kingston to attend Queen's and received a Diploma in Industrial Relations. While there she met Slade Clemence Nix, and after a brief stint working in Montreal, she returned to Ontario and married him. Her career was quite varied, taking in both teaching and real estate work. Peggy's ashes were committed to the sea near Halifax on May 6, 2001.

Lynn Kyle Sully BSC(AGR)'43 of White Rock, BC, August 1, 2001. Lynn was a member of the Thunderbird Basketball team that won the National Championships in 1941. He was a realtor and notary public in White Rock until retirement in 1982, after which he spent his time golfing at Peace Portal Golf Club. Active in community affairs, Lynn was chairman of the Peace Arch Hospital Board, was instrumental in the planning and construction of the South Surrey Indoor Pool, and served on the Fraser Valley, British Columbia and Canadian real estate boards. He is survived by wife Florence (BA'40), daughter Jane, son Ken and five grandchildren.

Douglas Haig Worth BA'40, DIP(SOC. SERVICE)'41 Poet, humanitarian, community builder and deeply loved family member, Douglas Haig Worth started out life on the Saskatchewan prairies. Later, he moved to Vancouver and attended UBC.

He married Phyllis on Nov 1, 1941, with whom he had five children (four surviving). He worked for Children's Aid society until the outbreak of WWII, during which he served as an officer in Canadian army.

After the war, Douglas and his family moved to Ohio, where he received his masters in Community Organization from Ohio State . While there, he was honored as recipient of the university's Stillman Fellowship Award.

He served as executive director of the United Way of Central Stark County for nearly 30 years from 1951, liaising with many community leaders and succeeding in expanding the services provided by the organization. Many awards reflect his achievements; they include the 1966 Certificate of Appreciation Award, from the Canton Camber of Commerce and the Jessie Knight Award for outstanding service to youth.

He is remembered as a great orator and an effective campaigner, advocating and overseeing the provision of many new community facilities. Even after retirement, Douglas served until 1986 as director and secretary of The Timken Foundation, an organization which provides learning opportunities for the community.

Kew Dock Yip BA'41
Kew Dock Yip died on July 9, 2001, just shy of his 95th birthday. Born and raised in Vancouver, Dock loved Canada and fought for equality among all its citizens. He was a champion of Chinese rights in Canada, and is particularly well known for instigating the 1947 repeal of the Chinese Exclusion Act, which kept Canada's borders closed to Chinese immigration from 1923, effectively separating many Chinese families.

Dock's father, Yip Sang Wang, was a wealthy philanthropist, whose portrait hangs in Canada's Parliament buildings in recognition of his pioneer status. After Yip Sang's death the family wealth was lost to the depression. Dock earned his BA on a part-time basis, and worked at the Chinese Consulate to support himself. He went on to Osgoode Hall in Toronto and, in 1945, became the first lawyer of Asian descent in Canada.

It was at Osgoode Hall that he met Irving Himel, his partner in the fight to repeal the Chinese Exclusion Act.

His practice in Toronto remained open until 1992, and in 1998 he was awarded a medal from the Law Society of Upper Canada. In 1997, he was honoured for his positive influence on the social and cultural evolution of Canada.

His interests weren't confined to Law. He served as a Toronto School Board trustee for two terms during the seventies, believing that education was a key factor in ridding Canada of the ignorance that breeds racism. He also had a keen interest in history, in particular Canadian, American and Chinese. Never complacent, he took up acting in his 70s and (ironically) played a mobster in the well known 1985 film, *Year of the Dragon*. He married Victoria Chow, his childhood sweetheart, and they had three children. Being the 17TH of 19 children (23 if you count half-siblings), Dock had a large extended family. To his network of nephews and nieces, he was often simply referred to as uncle number 17. His family is joined by the many people whose lives he touched in remembering Kew Dock Yip with fondness and respect.

ALUMNI NEWS

Ottawa: Chief Justice Beverley McLaughlin LLD'90 receives the UBC Alumni Award of Distinction from Dr. Martha Piper at the October 20th Alumni and Friends reception in Ottawa.

EVENTS

Reunion Weekend

More than 1,000 alumni and friends came back to campus for this year's Alumni Reunion Weekend on September 28 and 29. They came from all over Canada, the US and Europe to share stories with old pals, check out the changes to the ol' alma mater and shake hands with former profs. They spanned the history of UBC, from one of our earliest grads — Margaret Harvey, BASC(NURSING)'29 — to some of the latest from the 2001 batch, attending their 'zero' reunion.

Our thanks to everyone who helped make the weekend such a success. Don't forget to check out the Reunion Photo Gallery on the UBC Alumni Website at www.alumni.ubc.ca

Plans for 2002 Alumni Reunions

Next year's Reunion Weekend will run Friday, October 4 – Sunday, October 6, 2002. Grads from classes of '52, '77 and '92 make sure you mark your calendars now, and call us to assist in planning your class get together. Contact Jane Merling, program coordinator, at 604-822-8918 or merling@alumni.ubc.ca to kick-start next year's reunion plans today!

BRANCH EVENTS

Seoul, Korea – December 4

Alumni and friends reception with UBC President Martha Piper, Westin Chosun

Hong Kong – December 6

Annual Christmas party with special guests Lloyd Axworthy, Director and CEO, Liu Centre for the Study of Global Issues and Hong Kong Football Club.

Toronto – December 14

Annual Alumni Holiday Party

Vernon, BC – January 15

Alumni Dinner with the Canadian Club, Vernon Lodge

Nanaimo – February 12

Alumni and friends reception, Coast Bastion Hotel

MONTHLY BRANCH EVENTS

Toronto – Last Sunday of each month

Toronto Sunday Brunches

Portland, Oregon – First Thursday of every month

Portland Pub Nights

YA Murder Mystery: The crowd poses for a wrap-up photo at the annual Young Alumni Murder Mystery – Murder on the Ranch. Special thanks to Roger Haskett, BA'86, BFA'91, MA'92 and his detectives at Murder Unlimited for staging and sponsoring this event for the past seven years. To host one of your own contact Roger at 604-649-GUNS.

Hong Kong
Business Lunches and Networking Nights

Calgary and Ottawa
Commerce grads have come out in force to help plan varied events for alumni in both Ottawa and Calgary. Assisting long serving branch rep Carole Joling BA'67 BLS'69 in Ottawa is Aly Alibhai BCOM'87. Heading up the Calgary executive is Terry Taylor BCOM'76. We also have a new branch in the Lone Star State. Mark Dayton APSC'92 has volunteering to kick-start alumni activities in the Dallas-Fort Worth area. Interested alumni in the region can contact Mark at *mark@mdayton.com.*

Toronto, Hong Kong and Singapore alumni chapters have their own websites. For details of monthly events, find the link on the UBC Alumni Association website, www.alumni.ubc.ca. ➤

The PIGS held their 20th reunion on campus this summer. These alumnae lived together in Gage towers for two years and have been getting together for a weekend every year since then. L-R: Jo-anne Mahon, BSC'81, Pat Lee, Lorna Nikelski BSR'82, Shawn White BPE'82, BED'86, Karen Johnson BSC'81, Cathy Brown BCOM'82. Now, as for PIGS and what it stands for . . .

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NOUS SOMMES

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FACULTY OF BUSINESS ADMINISTRATION

For more info on these events, contact Janis Connolly (janisc@alumni.ubc.ca) or Tanya Walker (twalker@alumni.ubc.ca) or see the events section of the Alumni Association's web site at www.alumni.ubc.ca

YOUNG ALUMNI

UBC Young Alumni provides networking opportunities and organizes events for recent grads, including financial planning and career seminars, as well as social and outdoor activities. To receive Young Alumni notices by e-mail and to let us know what type of events and activities you would like to see, contact Tanya Walker, Alumni Programs officer, at 604-822-8643 or twalker@alumni.ubc.ca.

Young Alumni Ongoing Events

Second Tuesday of every month
Young Alumni Successful Entrepreneur Speaker Series *Networking* 5:30-6:30 pm; Speaker 6:30-7:45 pm Legends Bar & Grill, 608 Dunsmuir Street (private room downstairs). To register, e-mail costello@axion.net or phone 604-931-3932. Cost: $5

Third Thursday of every month, 6:30-8:30 pm
UBC Young Alumni POITS, Social and Networking Nights, Yaletown Brewing Co.

Every other month, 5:30-6:30 pm
Young Alumni Committee Meeting (next meeting TBC. Please check the events section of our web site).

CALL FOR BOARD NOMINATIONS

We need high-calibre leaders to help serve your needs on the Alumni Association Board of Directors. The vacant positions are:

1 Treasurer
(one-year term, 2002-2003)

3 Members at Large
(two year term 2002-2004)

All nominations must be in the Alumni Association Offices by 4:00 pm, February 14, 2002. For information, call 604-822-9565.

UBC ELECTIONS CALL FOR NOMINATIONS

UBC Senate: Alumni Representatives
Alumni of The University of British Columbia are encouraged to run for eleven positions on the UBC Senate. Candidates for these Convocation Senator positions may not be current UBC faculty members. Nominations are due at Enrolment Services by 4 p.m. on December 20.

UBC Chancellor
Nominations are being accepted for the position of Chancellor of The University of British Columbia. UBC's Convocation elects the Chancellor. The Convocation primarily consists of UBC graduates and full-time faculty members. Persons applying for the position of Chancellor may not be currently employed by a university. Nominations are due at Enrolment Services by 4 p.m. on December 20.

Nomination forms for these positions are available at Enrolment Services, Brock Hall, 2016 - 1874 East Mall, UBC. To have nomination forms mailed or faxed to you please telephone (604) 822-9952.

Volunteers Needed

There's more than one way to give back to your university....

We need volunteers to help with this year's reunion weekend, graduation ceremonies, award dinner and mentoring programs. These are fun activities that give you a chance to meet other grads and today's students.

If you would like to get involved in alumni activities, please contact Jane Merling at: 604 822 8918 or merling@alumni.ubc.ca
822-8918 or merling@alumni.ubc.ca

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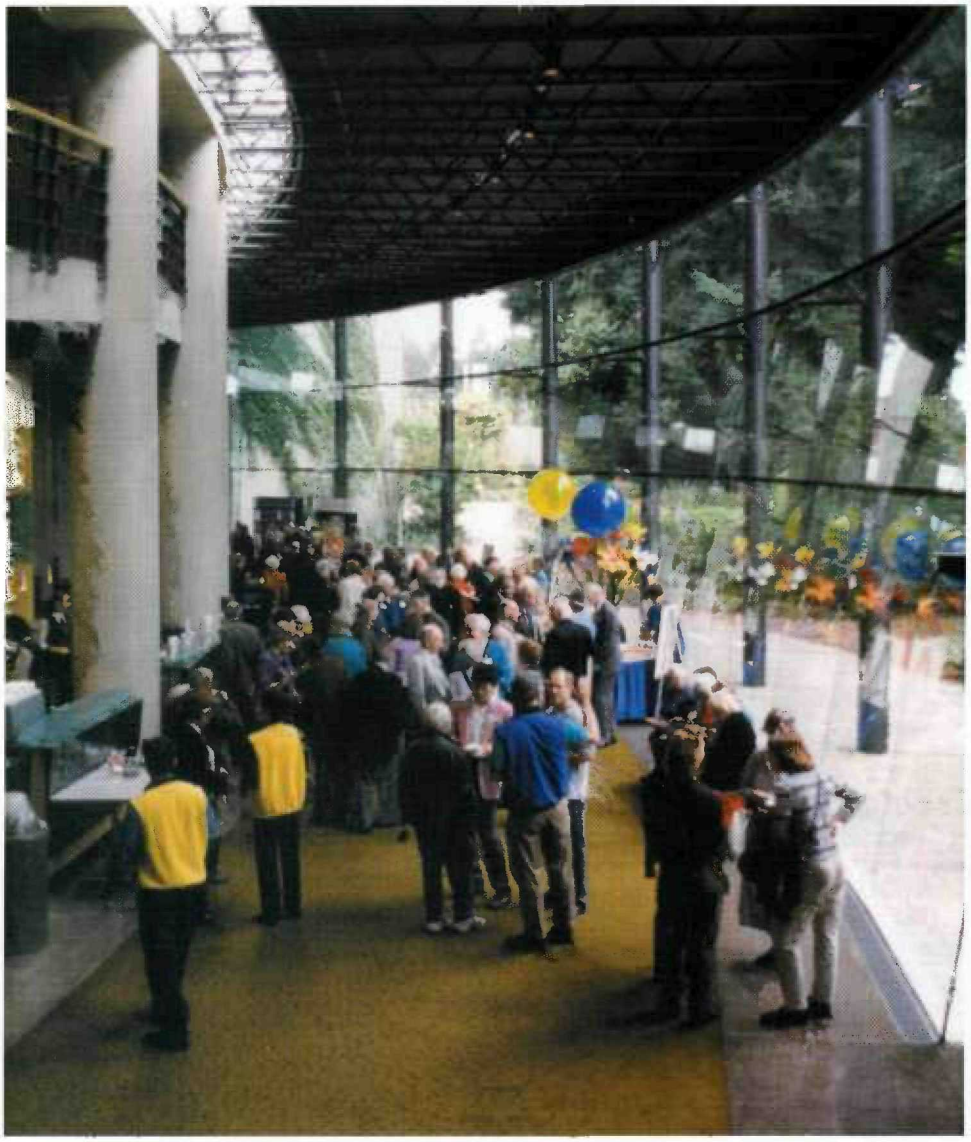
REUNION WEEKEND | ALUMNI DAY 2001



Reunions all over campus, special events and open houses brought alumni from all over Canada, the US and overseas to Reunion Weekend, the last weekend of September. Grads at the Chan Centre filled up on cinnamon buns and coffe before hitting campus. Reunion Weekend found Commerce's **Catherine Newlands** (left) and Alumni Treasurer **Tammie Mark** at The Chan Centre, laughing at a joke at the photographer's expense.

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The whole wide world is at your fingertips with Alumni travel. These tours are informative, educational and fun. Great food, great sites, and great deals.

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Dutch & Belgian Waterways . . . . . .May 3
Ennis, Ireland . . . . . .June 12
Journey of the Czars . . . . . .July 23
Sorrento, Italy . . . . . .Sept. 9
China & Yangtse River . . . . . .Sept 27
Legends of the Nile . . . . . .Oct. 3
Costa Rica & Panama Canal . . . . .Nov. 28

For more informaton about alumni services, or if you would prefer not to receive solicitations about our affinity programs, call 604.822.9629, toll free 800.883.3088, e-mail market@alumni.ubc.ca

www.alumni.ubc.ca/services

Photographs: Chris Petty

THE 7TH ANNUAL ALUMNI ACHIEVEMENT DINNER

The 7th Annual Alumni Achievement Dinner celebrated the accomplishments of alumni and friends of UBC, and raised money for student scholarships.

Held at the Fairmont Waterfront, it was a classy affair, and fun for all. **Martha Piper**, (left) told the 500 guests about the difference UBC makes, while MC **Stevie Cameron**, (right) kept the evening upbeat, fun and on time.

The UBC Alumni Association would like to express special thanks to our corporate sponsors who donated to this worthy cause:

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