UBC Archives Serial

Talks on grants continue

By Debora Sweeney

UBC is $5-million in the red and is depending on the provincial government to make up almost half the shortfall, according to the university's 1988-89 operating budget.

Five months into its fiscal year, UBC is still negotiating with the government for $2.1 million. The funding would be used to align faculty salaries with the university's fiscal year. Currently, salaries are negotiated for the period of July 1 to June 30, while the fiscal year is April 1 to March 31. The $2.1-million "annualization" would fund the last three months of the 1987-88 salary increase, said Daniel Birch, Vice-President, Academic and Provost.

The university plans to recover the remainder of the deficit by cutting one per cent from each vice-president's budget totalling $2-million, and by raising tuition fees by an amount not yet determined.

In a letter to the Board of Governors, President David Strangway said, "Since we plan to operate on a breakeven basis with respect to the fiscal year, the final decision ... will have to await the outcome of final grant information and the completion of negotiations with the Faculty Association."

University negotiators and the Faculty Association were unable to reach an agreement by the Aug. 12 deadline. However, both sides are exploring the possibility of mediation before the matter goes to arbitration.

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UBC Reports

The University of British Columbia, Vancouver, B.C. Volume 14, Number 15, Sept.8, 1988

Kain's degree a tribute to best in the arts

By Jo Moss

As UBC honors Canada's greatest ballerina with an honorary degree, it also acknowledges other Canadian artists: singers, actors, musicians, painters, sculptors and dramatists who rank with the world's best.

Performing and visual arts are not only alive and well in Canada, but many Canadian artists today are recognized internationally.

It used to be different.

"Canada is making its mark in world theatre in a way in which it didn't 20 years ago," said Errol Durbach, head of UBC's Theatre Department.

Canadian plays are now staged in London and produced at the prestigious Edinburgh festival.

"People are beginning to pay attention to Canadian dramatists," Durbach noted.

In Vancouver, live theatre is enjoying increasing popularity if the number of theatre companies that have sprung up over the last decade is an indication.

Many, such as Dark Horse Theatre Collective, Touchstone Theatre Company, and Tamahnous Theatre Workshop Society were initiated by UBC grads.

UBC's Frederick Wood Theatre, one of the oldest in Vancouver, consistently plays to sold-out houses and recently expanded its season to six plays from four.

One is always Canadian.

"We acknowledge the fact that Canadian plays are important for Canadian audiences," Durbach said.

Durbach said graduates from UBC's theatre and film programs find rewarding positions as wardrobe mistresses, property people, designers, technicians, and stage managers. After further training, many go on to successful acting careers.

"If you look at the major artistic directors in Canada, many of them are UBC grads," he said.

Funding from the provincial government last year allowed the department to expand its film division to meet a flourishing Vancouver market for specialists in all areas of the film industry.

See Canadian on Page 2

KAREN KAIN: Ballerina awarded honorary degree at fall ceremony

'10 and 10' is the slogan for United Way campaign

By Jo Moss

UBC's United Way campaign promises to be even bigger and better this year, says campaign chairman John McNeill, Dean of Pharmaceutical Sciences.

"Our slogan for 1988 is '10 and 10'—10 per cent increase in participation and 10 per cent increase in money raised," McNeill said.

That translates to a goal of 23 per cent participation by the campus community and $134,000 raised. Last year's participation rate was 13 per cent and $121,843 was pledged and donated.

"We are trying to adopt a more personalized campaign this year to get more people on campus involved," McNeill said.

UBC's participation rate pales when compared to other Canadian universities. At the University of Toronto, 38 per cent of the faculty and staff supported the United Way last year, and at the University of Windsor, 58 per cent.

UBC's campaign officially kicks off Oct. 1, two weeks after the Lower Mainland United Way campaign which begins Sept. 14.

The university drive will run until the end of October, but donations to the campaign will be received after that date. All fulltime employees at the university will receive pledge cards by the end of September asking them to support the 1988 campaign, McNeill said.

More than 100 staff and faculty who have volunteered to help organize this year's campaign will be invited to the first orientation meeting Sept. 13.

"We're still recruiting," McNeill said.

The United Way is the only charity permitted by the university to receive donations by payroll deduction. Donors can specify which of the 111 organizations supported by the United Way they want their dollars to go to. Because administrative costs are low, 98 cents of every dollar raised goes directly to United Way agencies.

This year's executive committee at UBC is: Dean Jim Richards, Agricultural Sciences, who is vice-chairman; Ron Dumouchelle, Development Office; John Foster, Information Systems Management; Ian Franks, Media Services; Byron Hender, Awards and Financial Aid; Libby Kay, Extra-Sessional Studies; Marianne Koch, Financial Services; Judy Larsen, Community Relations Office; Michael Lee, Alma Mater Society; Shirley Louie, Food Services; and Gayle Smith, President's Office.

The United Way representative working with this year's campaign committee is Janis Hamilton.

Meetings of Senate resume Sept. 14

By Gavin Wilson

Senate, the governing body that oversees academic matters at the university, resumes its monthly meetings Sept. 14 with a new Secretary, Registrar Richard Spencer.

Spencer, who took over the Registrar's position on Aug. 1, becomes an *ex officio* member of all Senate committees and is responsible for preparing meeting minutes and providing information on regulations and calendar provisions.

Senate's role is to oversee academic governance at the university, especially admissions requirements, courses and programs and the granting of degrees.

For the most part, recommendations on matters such as admission requirements, programs of study and graduation requirements come to Senate from various faculties and departments. Most are passed with few questions, but debate can be vigorous.

"Senate can ask some fairly penetrating questions and has the power to send recommendations back for reconsideration and change," Spencer said. "One of the more contentious issues in Senate is the discontinuance of programs of study, but this rarely happens."

See Senate on Page 2

UBC Reports redesigned

UBC Reports, the university's award-winning newspaper, has been redesigned to make it easier to read. The main features of the new look are larger type and a more readable type face, a revised logo and five columns in place of four.

UBC Reports was recently named Canada's best university or college newspaper in a competition sponsored by the Canadian Council for the Advancement of Education. The council is Canada's national organization for public relations, alumni and development professionals in post-secondary education.

The paper is published bi-weekly by the Community Relations Office and distributed on campus on Thursdays.

Canadian art now popular in Europe

Continued from Page 1

To many people, Canadian art is synonymous with the painter Emily Carr or the Group of Seven.

But work by modern Canadian artists is currently in demand in Europe and selling for astonishing amounts, said Jim Caswell, head of UBC's Fine Arts Department.

"There's a boom happening in Europe, particularly for artists from Vancouver," he said. "The art world is certainly subject to fads, but I think this will continue."

With the opening of the new national gallery this summer in Ottawa, and construction underway for a new museum building, the visual arts seem to be thriving in Canada, Caswell said.

Vancouver now has the new Vancouver Art Gallery, and more than a hundred successful commercial galleries.

"The thing about art is that the more you know about it, the more you like it," Caswell explained.

The UBC Fine Arts Department is the largest university fine arts program in Canada with undergraduate and graduate options in art history and studio arts.

Canada does not attract European art history students for obvious reasons, but UBC's Fine Arts Department attracts students from all over North America. While a tight economy may encourage students to be more serious about their studies, there's no indication it makes them avoid the so-called 'impractical' areas, such as Fine Arts, Caswell said.

Students with graduate degrees in art history find administrative positions with cultural institutions throughout Canada, or use their expertise creatively in areas such as international trade. Studio arts graduates have a tougher time, but many have successfully exhibitied in Canada as well as Europe, Caswell said.

Faculty members also exhibit work, act as curators for shows, and serve on boards of directors for art galleries and musuems.

Music school best for piano

"There aren't too many European countries that have the number of important performers and performing organizations that we do," William Benjamin, director of UBC's School of Music pointed out.

Thirty years ago, there wasn't a single Canadian performer or organization with an international reputation, he said.

The Montreal Symphony Orchestra is now recognized as one of the major orchestras in the world and B.C. native John Kimura Parker is one pianist who recently won international acclaim.

In fact, Vancouver probably leads the nation for cultivation of young instrumentalists like Parker, Benjamin said.

"A tremendous number of very good young players, especially in piano and violin, have come out of here over the last ten or 15 years and gone on to fairly significant careers."

Unlike other artists, many of those talented performers pursue careers in the U.S.

"The parents see the future for those kids as New York, or some place like that," Benjamin explained.

UBC's School of Music is recognized as the best school in the country for piano, and is becoming increasingly known for strings, he said.

It probably also puts on more public concerts than any other Vancouver music organization. Many concerts are designed to give students an opportunity to perform, but close to a quarter feature faculty or guest artists.

"Those concerts are done with a view to providing a community service and interesting the public in our school, and the university," Benjamin said.

While the annual opera production attracts a full house, other UBC concerts don't attract the audience numbers Benjamin would like.

"It takes time to develop an audience for classical music," he explained.

UBC ensembles regularly perform throughout the province, and the University Singers tour Canada-wide and overseas. UBC faculty are featured as soloists with the Vancouver Symphony Orchestra and play in musical groups. Earlier this year, the UBC music school sponsored several benefit concerts to help the financially ailing symphony.

A university education is a key factor in the success of UBC graduates in the visual and performing arts industry, Caswell, Durbach and Benjamin agree. They say it provides enriching, eye-opening experiences and produces a graduate who is more than simply a craftsman.

"It develops the student's process of thinking," Caswell explained. "That thinking goes into the statement people make in their art."

Photo by Warren Schmidt

A conservationist from Kyoto, Japan, analyses UBC's Japanese map collection to determine whether restoration work is necessary. The maps are housed in Special Collections in the Main Library. See story on page 5.

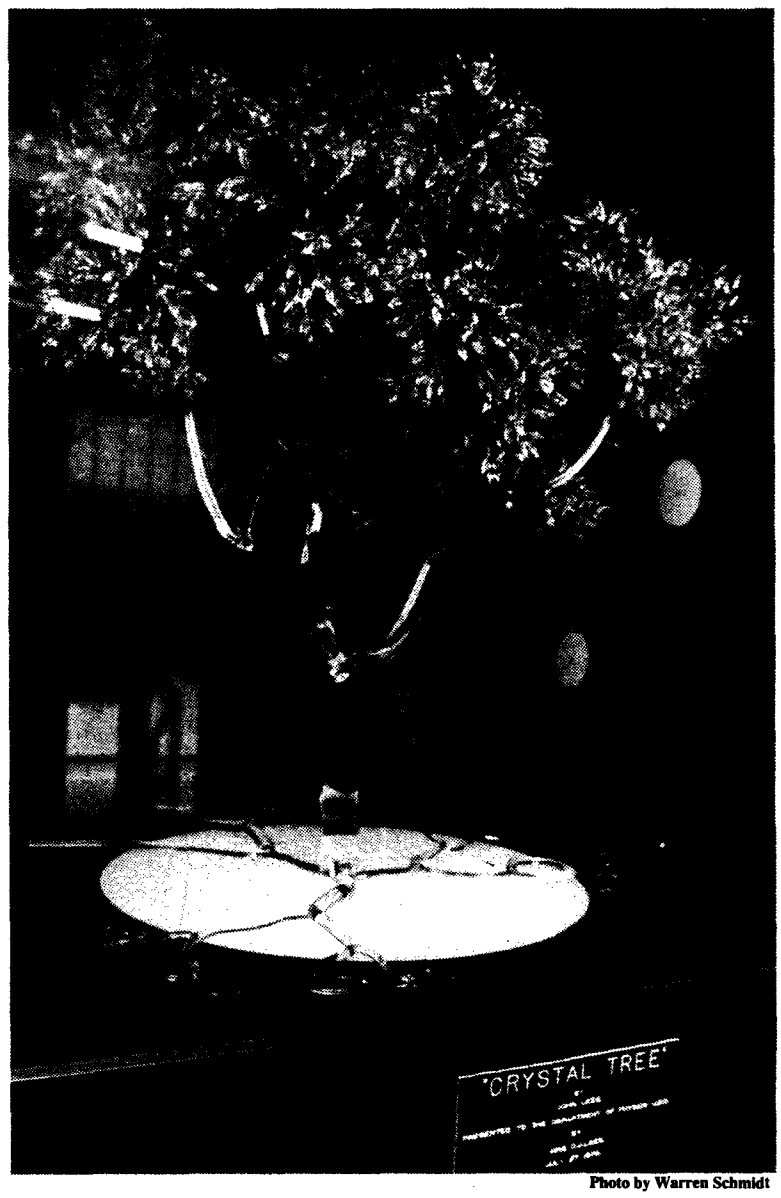


Photo by Warren Schmidt

This glass tree on display in the Physics building has almost 2,000 leaves. It was made by John Lees for the university's Open House in 1976. Lees, the Physics department's glassblower, is retired.

Senate meetings open to public

Continued from Page 1

There are 87 Senators, and their numbers include the Chancellor, the President, all 12 Deans, the Academic Vice-President, the head Librarian, the Director of Continuing Education, 34 faculty members, 17 students, 11 elected from the convocation, four provincial government appointees, three representatives of the affiliated theological colleges and one professional librarian.

Senate meetings are held at 8 p.m. in Room 102, George F. Curtis Building (Law), 1822 East Mall. Dates of Senate meetings for the 1988-89 academic year are: Sept. 14,; Oct. 12; Nov. 16; Dec. 14; Jan. 18; Feb. 15; March 15; April 19; May 17.

Standing committees of Senate and their Chairman are: Academic Building Needs (John Stager); Academic Policy (no chairman at present); Admissions (Jean Elder); Agenda (Dean William Webber); Appeals on Academic Standing (Anthony Hickling); Budget (David Robitaille); Continuing Education (Dean Robert Kennedy); Curriculum (Robert Thompson); Elections (Paul Tennant); Extracurricular Activities (John Dennison); Liaison with Post-Secondary Institutions (no chairman at present); Nominating (Paul Tennant); Student Appeals on Academic Discipline (Thelma Cook - acting); Student Awards (Thelma Cook); Tributes (John Dennison); University Library (Dean Peter Suedfeld).

Senate meetings are open to the public. Tickets for those wishing to attend may be obtained through the Clerk to Senate, Frances Medley. Phone 228-2951.

Minutes of Senate meetings are circulated to each Department Head and to the Archives in the Main Library.

Botanist honored for contribution to ecology

The Canadian Council on Ecological Areas recently a honored Vladimir Krajina, UBC professor emeritus in botany, for his contributions to ecology in Canada.

Krajina was one of three people presented with an award at the CCEA's annual meeting in Charlottetown, P.E.I.

It was largely due to Krajina's efforts that B.C. passed the first Ecological Reserves Act in Canada in 1971. The province now has 117 nature sanctuaries including one named after Krajina located on Graham Island.

The most recently established ecological reserve was on Nimpkish River Island where it ensures survival of Canada's tallests tree species: Douglas fir, Sitka spruce, Western red cedar, Western white pine and Western hemlock.

"Ecological reserves provide important guidelines on how forests should be managed," said Krajina.

The CCEE is an independent organization set up in 1982 to support the establishment of a nation-wide system of protected ecological areas.

Budget outlines goals, priorities

Continued from Page 1

At press time, there was no final word on negotiations with the Faculty Association or with the provincial government.

The voluminous 627-page budget includes extensive summaries from each faculty and department outlining goals and priorities. They include faculty compensation competitive with peer institutions; strengthening graduate programs without the deterioration of standards; addressing space and equipment problems; stabilizing enrolment; recruiting the best students; strengthening research, development and the transfer of technology; and continuing efforts to pursue funding from the private sector.

"We've asked the faculties and departments to give some clear indication of their planning for the future within realistic constraints," said Birch. "It's always easier to get projects done when there are more dollars, but we have to recognize we're not going to get a dramatic change and to focus hard on what strategies are open to us for achieving our goals."

The budget outlines new appointments, including:

Employment Equity Officer: To plan and supervise the federal government's Contractors Program for Employment Equity on campus. The program is designed to secure employment equity for women, aboriginal peoples, persons with disabilities and visible minorities.

Sexual Harassment Officers: A man and a woman appointed part-time to hear concerns under the sexual harassment policy approved by the Board of Governors.

External Affairs: A new unit of the President's Office created to develop the university's fund-raising campaign and to develop an integrated approach to public relations, community relations and government relations.

The university also plans to expand the mandate of the Coordinator of Services for the Disabled and the First Nations House of Learning.

Trends outlined in the budget show tuition fee income representing a decreasing portion of the university income; a significant increase in the number of master's degrees and doctorates; and a substantial increase in research awards to faculties. As well, 61 new faculty positions were created through the province's fund for excellence-in-education program.

A key issue in the budget presentations from faculties is the need for greater research support, said Birch. While U.S. universities can receive more than 100 per cent of their research overhead costs, in Canada, granting councils do not contribute to overhead. It means the more successful UBC is in getting research funds, the bigger a burden it places on the university's operating budget.

"Success in research carries very high indirect costs and there needs to be some way of recognizing them," said Birch.

Agriculture, pharmacy seek grads

Industry can't fill vacancies

By Jo Moss

Canada faces a serious shortage of qualified experts in all aspects of food production unless more university students enrol in agricultural sciences.

Jim Richards, Dean of Agricultural Sciences, said the crunch will come in the 1990s. He has launched an active recruiting program aimed at reversing declining enrolment in the faculty.

"The agri-food industry is becoming increasingly competitive and dependent on new technology, and our Canadian faculties of agriculture need to provide more graduates to support those developments," Richards said.

While the world wrestles with famines, agricultural faculties in Canada are battling an image problem that paints graduates as well-educated farmers, and ignores the wide range of other challenging careers available.

Richards said most people have a "romantic and fuzzy image" of agriculture. They don't realize that farming is just one part of a complex food production industry that is dynamic, progressive and quick to adopt new technology.

"Agriculture has become much more technology dependent," Richards explained. "It needs experts who have a broad science background and who know how to apply the techniques of fields such as biotechnology and computer science to agri-food problems."

Future demands in the industry will be high for crop production and disease control scientists and marketing and management experts, he said.

Student enrolment began to decline in the early 1980s, a trend Richards said also reflects a shrinking pool of college-age students and negative publicity surrounding the economic welfare of Canadian farming. Most Canadian university agricultural programs are experiencing the same problem.

UBC's faculty is trying to reverse that trend.

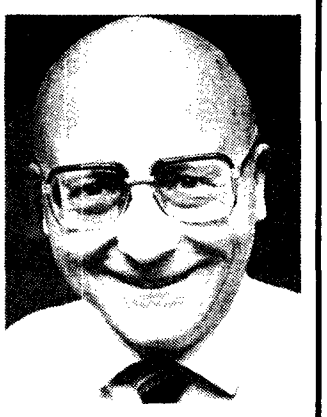
Contrary to popular belief, less than one in five students enter UBC's Agricultural Sciences program with a farming background and less than one in 20 graduates go on to jobs in primary production.

Despite its image as a male-dominated field, women students currently outnumber men.

Faculty trying to reverse trend

Recent graduates are found throughout Canada, working as plant pathologists, quality control managers, policy analysts, conservation officers, land use planners, research and development supervisors, animal nutritionists and technical consultants.

Career opportunities for graduates are varied and available in B.C., throughout Canada and abroad. The faculty's attention to helping students find relevant summer work placements enhances their employability.



Jim Richards

Prospective UBC students can take their pick of five specialities in the four-year program: Soil Science, Plant Science, Animal Science, Food Science, and Agricultural Economics. There are many options including Aquaculture and pre-veterinary medicine.

This term, about 100 new students enroled in first and second year. Richards would like to see that number rise to at least 150 by next year.

"To do that we need to raise our profile," he said. "We think there are many students who would be interested in our programs or courses if they knew more about them."

The faculty is aggressively advertising in high schools and colleges and developing teaching materials for high school science and geography teachers.

A message is going out to UBC students that Agricultural Science courses can be credited towards many programs in other faculties.

Foreign students are another target market.

"Agriculture is a worldwide business," Richards said. An undergraduate student population made up of 10 per cent to 15 per cent foreign students would be "a healthy and reasonable number" he added.

UBC 'stressed and strained'

'We are turning down 535 B.C. residents qualified to get into pharmacy when employers are going outside the country'

By Debora Sweeney

Community pharmacies and hospitals across Canada are facing critical shortages of pharmacists while universities are forced to turn away hundreds of qualified applicants.

This fall, UBC has accepted only one applicant out of five who qualified to enter first year in the faculty of pharmaceutical sciences, said Dean John McNeill.

JOHN MCNEILL: One of five applicants accepted

"From an academic's point of view, here we are turning down 535 B.C. residents who are qualified to get into pharmacy at a time when employers out there are going outside the country to try to bring pharmacists in," said McNeill. "We are stressed and strained at the moment just to handle the number of people we have. In fact, faculty members feel we should be cutting back because handling the number of people we have is difficult."

Enrolment in pharmacy schools across Canada began a dramatic increase when the country's economy took a sharp downturn about eight years ago. Pharmacy students are virtually guaranteed jobs when they graduate, said McNeill.

The advent of 24-hour superstores has expanded job opportunities for community pharmacists, while an explosion of pharmaceutical technology, an increase in the number and potency of drugs available, and an increased demand for around the clock service has created a huge demand for highly skilled hospital pharmacists.

The demands are not being met, said Bob Nakagawa, Assistant Director of Pharmacy, Lion's Gate Hospital.

"If a hospital pharmacist resigns, it is reasonable to expect it will take six to 12 months to replace that person," he said. "We're in the process of trying to set up measures to see how bad the problem will be in the next five to ten years because we believe the situation may become considerably worse."

McNeill added, "Hospitals that are understaffed to the point that they have to compromise on drug distribution end up with significantly more distribution errors. When you consider a medication error can result in increased length of stay in hospital and even could result in death, it's not a trivial matter."

Community pharmacies outside the Lower Mainland are facing a perpetual shortage of pharmacists because grads do not want to leave the Greater Vancouver area, said Gordon Sauder, Director of Employee Relations for the B.C. Pharmacist's Association.

"In Prince George, the Interior, Prince Rupert and in the North Country, they'd probably say we should be importing people from the U.K and elsewhere," he said.

In Ontario, where it is reported hundreds of jobs in the profession are available, pharmacists from outside the country are being recruited at great expense, said McNeill.

A slew of angry letters

At UBC, the minimum requirement for admission to pharmacy is 60 per cent from first-year science. This year, the faculty's cutoff point was 74 per cent.

Accepting high-calibre students has introduced a problem, said McNeill. The faculty's retention rate is going up — fewer students are dropping out. That means more students requiring one-on-one teaching in their graduating year, placing extra strain on professors.

McNeill said he would like to increase enrolment in the faculty, provided he gets the proper funding. Meanwhile, he has received a slew of letters from angry parents, demanding to know why their sons and daughters can't get into his faculty.

"It's toughest when someone phones you up and says, 'I'm a pharmacist, my wife is a pharmacist and we've always planned our children could go into pharmacy if they wanted to.' Now, they're being turned down. They don't understand what is going on," said McNeill.

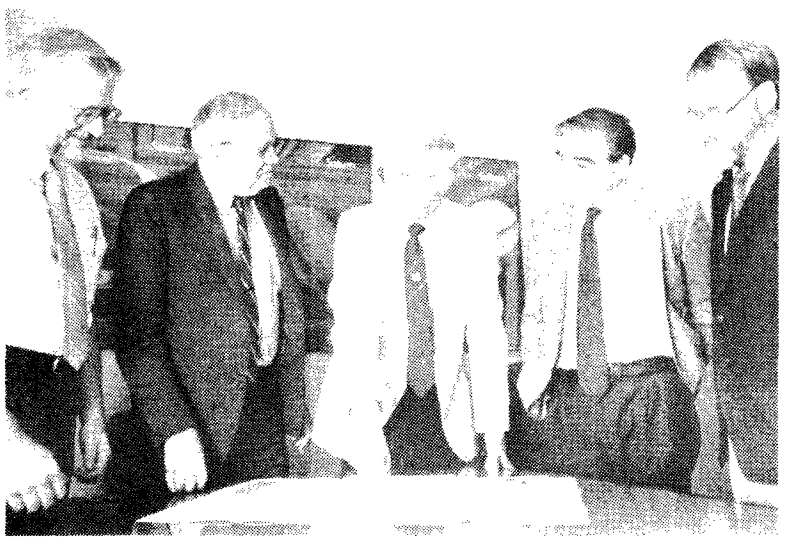


Photo by Warren Schmidt

Peter Suedfeld (centre), Dean of Graduate Studies, points out the location of UBC's research in the Antarctic to (from the left) Dennis Stossel, Environment Canada, UBC President David Strangway, Jorge Bernaldez, Coordinator of the Antarctic Institute, and UBC Vice-President Daniel Birch.

Pact opens door to Antarctic study

By Debora Sweeney

Researchers will be able to study the desolate wasteland of the Antarctic as a result of an agreement in principle between UBC and Argentina.

In the first phase of the pact with the Argentine National Directorate for the Antarctic, UBC psychologists working with Argentine scientists will explore how humans adapt to the stress of living in isolation.

Results of the study not only would improve living conditions in isolated areas of the earth — they would provide invaluable information to the space agency NASA, said Peter Suedfeld, Dean of Graduate Studies.

"NASA is looking ahead to a space station that will be up there for several years at a time, or a manned mission to Mars," said Suedfeld. "It's really hard to prepare the space stations and crew for what they will experience unless you have an idea about how they will react in a somewhat similar situation. Intense interaction in a very small group — you can't get away from people or make them leave; an extremely hostile environment — all these things can be tested in the Antarctic at much less cost and much less hazard."

In January, a polar psychology project group will be taken by ship, then helicopter to a site on the coast of the Antarctic peninsula. For nearly two months, the group members will share chores like cooking and cleaning, as well as collecting zoological and geological data. One term of the agreement with UBC is that all group members will contribute to the psychological data.

"Once the helicopter drops them off, that's it," said Suedfeld. "There would be no traffic through the area, but they would be close enough to a permanent base that if there's an emergency, a helicopter or ship could be sent to get them."

The Argentine station will be open to any kind of research at UBC, but financial planning will have to be worked out on a case-by-case basis, Suedfeld said. As well, he hopes to arrange similar agreements for cooperative research with the People's Republic of China, Australia and New Zealand.

Korea alters culture for Olympic guests

By Debora Sweeney

A sanitized taste of Korean culture awaits international athletes, journalists and visitors to the Summer Olympics in Seoul, says Don Baker, professor of Korean Studies at UBC.

"The Koreans are putting on a cultural Olympics to go along with the sports Olympics, but visitors will have to go beyond the facade if they want to see the real Seoul," said Baker."

Korea has been preparing for the Olympics for eight years and it intends to show the world that it is not Japan or China — that it has a unique culture, Baker said. But there are some facets of Korean culture which the government does not want visitors to encounter.

Visitors will be invited to taste fried silkworm larva, a traditional Korean food which tastes crunchy and sour. They will also be treated to several rice-based liquors which, until recently, were sold illegally.

"The Koreans would have hid that before and now they're proud of it," said Baker. But both Koreans and visitors will have a harder time finding dog soup, he added.

"Dog soup used to be called 'good for the body soup' — in colloquial terms they called it 'bow wow soup' — and Korean men had this notion that it was very good for virility. The Korean government decreed that no dog meat could be sold within Seoul in preparation for the Olympics," he said. "Still, it's there. They've changed the name to 'nourishing soup.'"

Fortune tellers won't be in evidence either, added Baker. People will have to visit 'philosphy research centres' to find them.

And, while the government plans to show some of the dances derived from the Shamin religion, it has taken the religious context out of the dance.

"A true shamin gets possessed — usually it's a woman who goes into a trance with this really neat dance," said Baker. "She could be possessed by an ancient Chinese general or something and chase out a spirit that's causing illness or a spirit that causes business troubles. The government has changed the dance for foreign audiences — they don't want you to see the real ritual. It's a matter of shame."

Baker said the government is hoping visitors will travel from their hotels, straight to the Olympic facilities. But, he hopes people will venture out to see the rest of Seoul.

"Seoul is fascinating — the downtown neighbourhoods are filled with little shops the size of my office, and in the streets there are all sorts of people with carts selling clothing, books and kitchen utensils, Baker said."

Drug use studied in fish farming

By Debora Sweeney

UBC researchers are investigating the use of antibiotics in fish farming amid concern that residuals of the drugs might remain in salmon when sold to consumers.

Keith McErlane, a pharmaceutical analyst, hopes the two-year study will be the framework for Canadian guidelines to govern the use of antibiotics in the aquaculture industry.

"With some of these antibiotics, particularly penicillin, there are allergies in humans to quite small quantities, so everybody involved in the industry wants to ensure that the antibiotics are below detectable limits," said McErlane.

The project will analyze how effectively antibiotics are administered to farm salmon. Currently in Canada, there are no official regulations and few methods for measuring antibiotic residue in fish.

"With the recent explosion of fish farming in B.C. coastal waters, farmers may be using antibiotics closer to marketing day than advisable," said McErlane. "We're trying to put together some solid data for monitoring in Canada, just as they have for beef, pork and fowl."

Salmon raised in fish farms are subject to infections which can be economically disastrous if left untreated, McErlane said. Most losses in the aquaculture setting are caused by disease, spread as a result of crowded conditions in which hundreds of thousands of fish may be raised in a confined area.

Farmers and veterinarians are faced with a dilemma, added McErlane. If the withdrawal time from antibiotics is too long, there is a danger of the infection reappearing and wiping out large fish populations. If the withdrawal time is too short, it is possible that the antibiotics will remain in the tissue in sufficient quantities to cause reactions in humans.

Working with Helen Burt from the faculty of Pharmaceutical Sciences and David Kitts from Food Science, McErlane will develop recommendations about the time required between medication and harvesting.

People

Rothstein winner of library award

Rothstein

UBC Professor Emeritus **Samuel Rothstein** has won the American Library Association's prestigious Beta Phi Mu award for distinguished service to education for librarianship.

Rothstein served as director of the School of Librarianship at UBC from 1961-70.

"His name is one of the most widely recognized of all library educators," said **Jane Robbins**, Chair of the Phi Beta Mu Award jury. "He has a long and distinguished record of scholarship and teaching."

Previous awards for Rothstein include an Honorary Doctor of Letters from York University in Toronto and the Helen Gordon Stewart Award from the B.C. Library Association

The Phi Beta Mu award was presented to him during the American Library Association's annual conference in New Orleans this summer.

Starcevich

UBC music student **Sasha Starcevich**, 18, was one of six finalists to win first prizes in an international competition for pianists in Ann Arbor, Mich., this summer. It was the first time he had played with the backing of symphony orchestra. He also won third prize for his solo entry in the contest. The event, sponsored by the Young Keyboard Artists Association, attracted 600 pianists from around the world. Starcevich will play with the Boca Raton, Fla., symphony orchestra this fall and has also been offered a $6,000 scholarship by the St. Louis Conservatory.

Good news for another product of UBC's School of Music. As reported in the Feb. 11 issue of UBC Reports, **Cameron Wilson** had auditioned for and won a place in the violin section of the Vancouver Symphony, only to see the orchestra collapse. But with the revival of the symphony, Wilson has been once again offered the job and will start this autumn.

Dr. William Webber has announced he will not seek a third term as Dean of Medicine.

Webber

Dr. Webber, who was appointed Dean in July, 1977, said he will step down June 30, 1989.

Webber, a former president of the UBC Faculty Association, has represented the faculty on Senate for 20 years. He is also a former member of the Board of Governors.

Dr. Webber, a member of the university faculty since 1961,will return to full-time teaching and research in the anatomy department.

Dr. Charles Brumwell has been named the new Medical Director of the Student Health Services succeeding **Dr. Robin Percival-Smith**, who stepped down Sept. 1.

Dr. Percival-Smith will remain temporarily as a staff physician.

Timothy A. Miner has been appointed Director of the Department of Physical Planning and Development, effective Sept. 1.

Miner, a UBC grad with a BSc in mathematics and physics and a BArch. degree, held a similar post at the University of Alberta.

The Department of Physical Planning and Development is a new department designed to integrate and manage space planning and functional analysis, facilities planning, and design and construction.

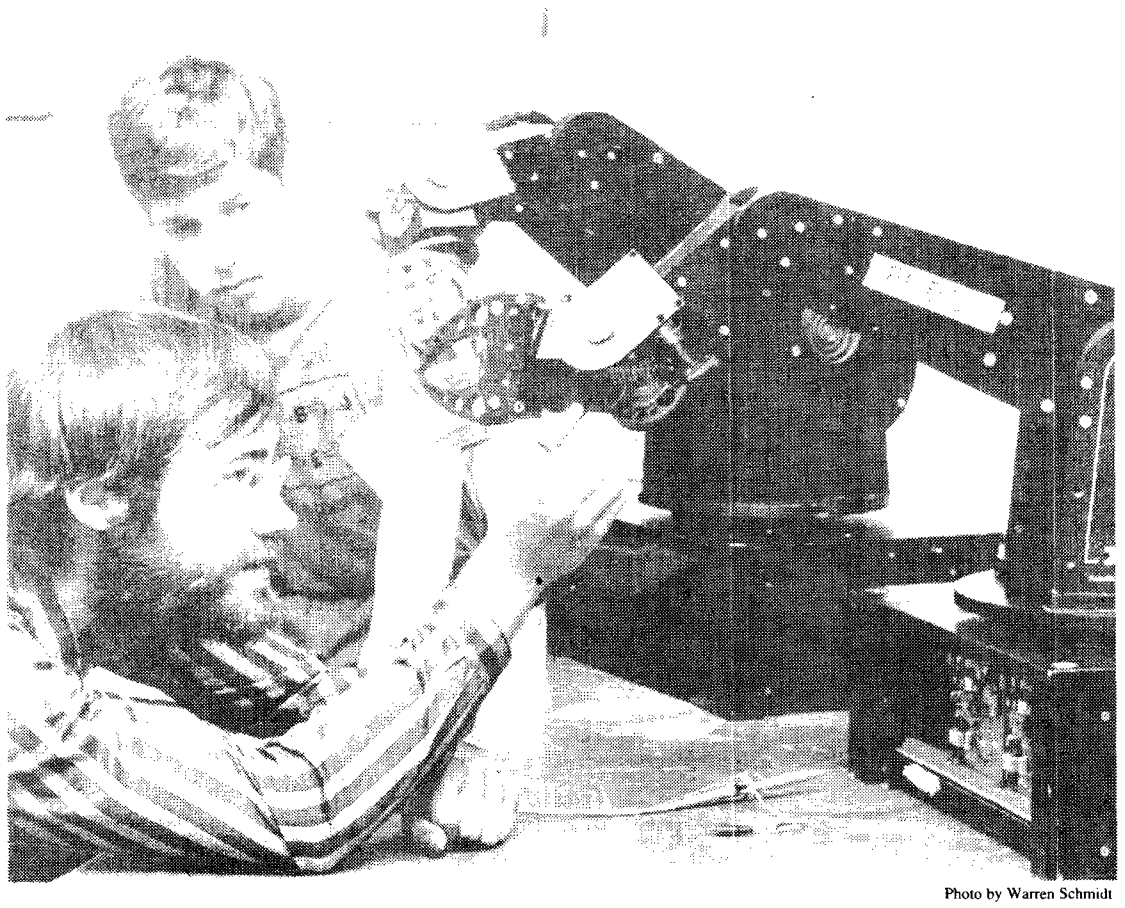


Photo by Warren Schmidt

Engineering Physics student Scott Phillips (left) adjusts Fred, one of the robots in the new lab for undergraduate engineering physics students while Ryan Zindler looks on.

Barney and Fred set to help students study robots

By Jo Moss

Barney and Fred were the first to occupy a new engineering physics lab set up in the physics building this summer.

But they won't be doing any experiments, in fact, they will be experimented on.

They're robots.

For the first time this fall, engineering physics students will have a common area to work in with specialized equipment. Up to now, they have had to borrow lab space elsewhere, in other departments and off-campus.

Barney and Fred were obsolete robots bought from a private company for $1,500 each.

"The students have adapted them extensively for their own use," said Harold Davis, industrial research supervisor in Engineering Physics. "They're in much better form than they were when they left the factory."

Davis wants to boost industry collaboration and the new project lab, once fully outfitted, will allow him to do that. He has already approached six local businesses to elicit research projects of mutual interest. Tentative contracts are in place with four of them, he said.

"Having a dedicated space is a big advantage. It provides maximum possibility for students to be involved in industrial problems," Davis explained.

Robotics research is an ideal area for industry collaboration because of the number of west coast companies involved in that area, he said.

But it's only one of the many specialities the lab is capable of handling. It will be equipped to undertake a variety of research in areas as diverse as applied optics, laser applications, computer systems, instrumentation and sensors, biomedical devices and condensed matter.

"Any challenging problem from industry will be considered providing it is of mutual interest," Davis said.

About 35 students graduate each year from engineering physics, an interdisciplinary program within the Faculty of Applied Science. According to director Edward Auld, the program attracts budding entrepreneurs.

"Many of our graduates have gone on to set up their own companies," he said.

The new lab will enhance students' skills and expertise.

Recent student projects include a diagnostic software program that tests hydraulic controllers used in industrial processes such as the pulp and paper industry; medical instrumentation that maps electrical fields on the surface of human skin; a unique design for robot grippers with improved gripper action; and an improved imaging system for scanning tunneling microscopes which allow scientists to look at surfaces on an atomic scale.

Old Japanese maps priceless

By Debora Sweeney

A priceless collection of travel maps from pre-modern Japan is tangible proof that tourism in the island country has been popular for several centuries.

UBC's collection of more than 900 maps and guide books - dating back to 1645 - presents Japanese views on travel during a time when the country remained isolated from the rest of the world, said Dr. John Howes, professor of Asian Studies.

UBC bought the collection from Philadelphia businessman George Beans in 1964 for $14,000. Today, it is impossible to place a value on it, said Howes.

The maps weren't considered special when they were made, said Howes, who added, "The Japanese traditionally did not pay any more attention to maps than we pay to a Shell roadmap." However, in recent years, they have become an "in" thing to collect and their value has increased.

A select group of the colorful maps is being prepared for an international exhibition and will preview at the Vancouver Art Gallery in 1989 during the 100th anniversary of consular relations between Japan and Canada. As well, in 1990, during UBC's 75th anniversary, the exhibition will be displayed around the world.

The maps provide a glimpse of what life was like during the Edo period (1600-1867) when people began to travel for pleasure. During this period, commercial relationships were broadened and the road system improved.

The collection includes city maps that name streets and businesses, trekking maps that show travellers the way between cities, and a three-dimensional map of Mount Fuji, which gives a rare bird's-eye view from the top. A map of the world, made in 1645, is the oldest sample in the collection.

One of Howes' favorites is a map which shows a major pilgrimage route to the Ise shrine, the home of the goddess who is said to have founded Japan. From the centre of the road, the map describes in great detail what a person would see along the 200-mile walk, starting in Tokyo.

Labs and lectures, food and football are all on tap for first week

By Jo Moss

UBC's first week of the 1988 fall term offers music, food, sports and entertainment in addition to lectures and labs.

Karen Kain, Canada's world-renowned ballerina, will be presented with an honorary degree at the university's annual fall ceremony, Thursday, Sept 8. Retired B.C. Chief Justice Nathan Nemetz will also be honored.

Leslie Peterson, UBC's chancellor, and Tim Bird, president of the Alma Mater Society, will join UBC's President David Strangway in welcoming new and returning students to campus.

The ceremony begins at 2:15 p.m. in the War Memorial Gym and is open to all students, faculty and staff as well as the outside community.

The ceremony will be followed by a reception on the terrace outside the Student Union Building.

Other orientation activities include an outdoor barbecue, sponsored by the AMS, on Friday, Sept. 9 beginning at 12:30 p.m. It will be held on the McInnes field, next to SUB, and features guest artists David Lindley and El Ray-O X. Admission is free.

Turquoise shirts and Thunderbird hats will be the uniform of the day for several student volunteers who are part of the AMS' "Ask Me" program. The volunteers will be answering questions and distributing campus maps during the first week of classes.

On Saturday, Sept. 10, the UBC Thunderbirds football team takes on SFU's Clansmen in an annual tradition of crosstown rivalry—the Shrum Bowl. For the first time in Shrum Bowl history, UBC is playing on home turf. Game time is 7:30 p.m. in the Thunderbird Stadium. Tickets are $10 and available at the VTC/CBO ticket office in the Student Union Building, or from the UBC Athletics department.

The 'Birds defeated the Clansmen last year 14 to 0. Game score to date is five all with one tie. The Shrum Bowl is played according to American rules.

UBC's lineup for this year include quarterback Jordan Gagner, who broke four UBC records last season completing 225 out of 418 passes for 3,328 yards. Also playing will be slotback/kicker Mike Bellefontaine, the leading scorer in Canadian university football.

Nathan Nemetz

The university's student newspaper, The Ubyssey, is 70 years old next month. A training ground for journalists such as Allan Fotheringham, the paper will be holding birthday celebrations during Homecoming Week Oct. 1 to Oct. 7.

All former staff members and UBC graduates who have gone on to careers in journalism are invited to attend a gala dinner Oct. 6. They are also invited to submit items of less than 600 words for a special 70th anniversary issue.

Personal experiences, critical commmentaries and current views on any political or social issues, as well as graphics and photographs are welcome.

More information may be obtained from Yolanda Weisz, AMS Archivist at 228-5320.

Homecoming week kicks off with a football game Saturday, Oct. 1 and closes with Octoberfest in the SUB Ballroom Friday, Oct. 7. Other activities include a Homecoming Parade, a "Decorate Your Building" Competition, the Arts 20 Relay Run, a scavenger hunt and the Great Trekker Awards Dinner on Thursday, Oct. 6.

$2 fee set by Music School for noon hour concert series

By Gavin Wilson

The Wednesday Noon Hour Concert series, a venerable institution on campus, will no longer be free of charge, the School of Music has announced.

Budget pressures have forced the school to institute a charge of $2 for the concerts beginning with the first of the autumn series on Sept. 7, said William Benjamin, director of the School of Music.

"The series has been running in the red for the past several years," he said. "It has to become self-supporting."

Music students and students in other departments taking music courses will be exempt from the charge.

The popular concert series began in the early 1950s after the appointment of Harry Adaskin as the first director of the new Department of Music. A violinist, Adaskin gave recitals accompanied by his wife, pianist Frances Marr.

In more recent years, some of Vancouver's best professional musicians have performed at the noon hour concerts.

UBC research

Mines to save on heat

By Jo Moss

Mining companies stand to save thousands of dollars in heating costs as a result of research by UBC mine ventilation expert Al Hall.

Mines in cold climates, such as Saskatchewan's, must be heated to make the workplace comfortable. Hall has found a way to recirculate warm air that could save these mines as much as $450,000.

"When you think that Saskatchewan mines spend anywhere from $120,000 to $450,000 in fuel costs for six months of heating, the potential for savings is enormous," he said.

The system costs up to $250,000 to install, depending on the mine, and Hall figures a company can recoup costs in about two years. From then on, it can look at cutting heating costs by 10 per cent to 25 per cent.

Prairie potash mines have to be heated to about 10 degrees to prevent steel-lined shafts from contracting and allowing groundwater to enter.

Rigid industry standards call for mining companies to circulate a set amount of air in the mine, at a certain quality, 24 hours a day. During the winter, the air is heated to make the workplace comfortable. But almost half of the warm air can leak to other areas before reaching levels where the miners are working.

"We saw there was a great deal of wasted potential and thought it might be re-used," said Hall, a professor in the Department of Mining and Mineral Processing.

Al Hall

His solution calls for sophisticated and complex electronic equipment to monitor and control air quality in the mine. Diesel-run mining equipment is the primary cause of air contamination producing carbon dioxide and carbon monoxide in large quantities. There's also dust from mining operations.

By monitoring gas and dust levels, warm air can be reclaimed from the mine exhaust and transfered directly back to the intake, when contaminant levels are low.

The controlled air recirculation system was developed in initial tests over the last three years at Ruttan Mine, a copper-zinc operation 700 miles north of Winnipeg. It will soon be installed in a Saskatchewan mine, Central Canada Potash, on a one-year trial.

"We took the first air readings at the mine last year and they're very encouraging," Hall said. "It will be the first working recirculation system of its kind in Canada."

Until recently, government legislation banned uncontrolled air recirculation in mines because it increased air contamination.

But advances in computer electronics in the last 10 years has meant that very sophisticated sensor and control systems can be developed, Hall explained.

"In an emergency situation, such as fire, for example, the system has to guarantee the safety of the miners," he said.

The monitoring equipment is easy to install, reliable and requires little maintenance.

Although currently being tested in a potash mine, any metal mine could profit from the system, Hall said.

"The one problem with metal mines is the large amounts of dust produced from blasting," he said. "Not only is it difficult to monitor dust in the air, but it plugs up the monitoring instruments."

He's confident that problem will be solved in the near future.

Vernon teacher Betty McKinnon and UBC education student Gordon McGee work during a summer course for elementary school art teachers sponsored by UBC's Department of Visual and Performing Arts in Education. The institute drew 165 B.C. teachers.

Scientists racing to perfect ceramic engine for autos

By Jo Moss

Scientists are racing to perfect the technology for an automobile engine, composed entirely of ceramics, that will be lighter, stronger, and more energy efficient than any engine currently on the market.

In fact, the new ceramic materials will make today's automobile engine obsolete.

"That's our ultimate objective," said Metals and Materials Engineering professor Asoke Chaklader, a ceramics specialist. He recently received a Natural Sciences and Engineering Research Council grant of $160,000 over two years to study ways to improve the ceramic powder-making process.

"We could lighten a diesel engine in a truck by 400 pounds by making it out of ceramic materials. But until we can prove that ceramics perform reliably in large structures, no one can use the ceramics technology," he explained.

Initially, the ceramic engine will resemble its metal predecessor, but it will have no cooling or lubrication system. Operating temperatures in the engine core will be 1000 to 1,200 degrees celsius. Future ceramic engines may be radically different in design, Chaklader said.

The potential market for the technology is enormous— more than 30-million cars are produced each year world wide.

In addition, the raw components to make ceramics are relatively easy to come by. They are nitrides and carbides of silicon which can be obtained from common minerals such as sand and coal.

Chaklader says that accessibility makes the technology even more attractive to manufacturers because they won't have to depend on a foreign supply.

"The impact the technology will have is mindboggling."

Automobile manufacturers such as Nissan and Toyota already use ceramic components in many car engines: as seals, valves, spark plugs, oxygen sensors, and in the turbo charger and cam. They are used in what manufacturers call non-strategic applications. Researchers have yet to prove that large structures, such as an engine, constructed entirely of ceramics will perform as well as consumers demand.

"The biggest problem is what we call fracture toughness," Chaklader explained.

Ceramics are very strong, but also extremely brittle. A sudden powerful shock can shatter them into thousands of pieces. A ceramic engine would have to be totally enclosed and protected against shock.

"We have to be able to predict with certainty how the ceramic material will behave in an engine structure. If you sell a million cars with a ceramic engine, you have to be able to guarantee it won't fall apart," he said.

Photo by Warren Schmidt

Chaklader and superconductor

Ceramics have been around for hundreds of years. Washbasins and china cups are both examples of ceramic materials. But the sophisticated ceramics that automobile manufacturers want to use in automobiles are light years away from porcelain.

Although the raw ingredients are simple and readily available, they're manufactured under a closely controlled process, at melting temperatures of more than 2000 degrees celsius.

"For a start, you have to have the right powders which are very fancy and have to be extremely pure," Chaklader said. "Even the characteristics of the powders—the size, shape and distribution of the powder granules—has to be carefully controlled."

A powder technology specialist, Chaklader has spent almost 30 years working to improve ceramic powders. He says the answer to the brittleness problem may lie in combinations of ceramic materials called ceramic-ceramic composites.

"They may ultimately give us the product we need," he said.

Sun could help tropical countries irrigate crops

By Jo Moss

Solar-powered water pumps may soon irrigate Moroccan farmland thanks to three UBC professors who have helped make solar energy a practical option for Third World countries.

Electrical engineering professors William Dunford and David Pulfrey, and civil engineering professor Peter Ward, have developed a more efficient electrical converter, a device that relays energy from solar panels to drive a water pump motor.

The improved mechanism will help tropical countries take advantage of their most abundant natural resource—sunshine.

Unlike other solar-operated systems, the new converter eliminates the need for a battery to start the pump motor and allows the pump to operate all day on available sunlight

"Basically, it changes a low current to a high current at the expense of voltage output. That means the pump can operate throughout the day using weak or strong sunlight. Without the converter, it could operate during peak sunshine hours only," Pulfrey explained.

"As long as there is sunlight, the motor is operating and pumping water," Dunford added. "It just pumps faster or slower depending on the amount of power."

The result is a simpler, more reliable, low-maintenance water pump operated solely by energy from the sun.

"We wanted to decrease the maintenance required so the pump could be maintained by the local farmers," Dunford explained.

The beauty of the solar energy system is that it's designed to fit the type of diesel-operated pumps in common use in Third World countries. All that's needed is to add solar panels and the converter. It can move 2,500 litres of water an hour from a head depth of 30 to 90 metres, and will run almost maintenance-free for up to 20 years, Dunford said.

He estimates installation prices will be about $20,000 a pump. That may sound expensive, but the costs of diesel fuel, the costs of transporting it to remote areas, and the higher maintenance involved in diesel-run pumps, makes solar power an economical alternative for Third World countries, he said.

The UBC professors are waiting to hear if a proposal incorporating their converter design will be accepted by the Canadian International Development Agency which has announced it will fund a project to put up to 200 solar-operated pumps in Morocco.

East African countries are also interested in using the solar pump on big game reserves to keep remote watering holes from running dry.

While tropical countries may seem the obvious place for solar-operated pumps, B.C. gets enough sunshine to make solar power an energy alternative, Dunford said.

Chances are the costs of installation will keep most B.C. farmers from rushing out to buy the system. A solar panel measuring a metre by a third of a metre that delivers 40 watts of power costs $600. And the weaker the sunlight in the northern hemisphere, the more solar panels are needed.

Pollution control costly for pulp industry: study

By Jo Moss

Pollution controls cost Canada's pulp and paper industry a quarter of a percentage point in productivity, according to a recently completed study by Commerce professors Michael Tretheway and Tae Oum.

It's the first time that industry costs of meeting stringent mandatory environment controls, in terms of foregone productivity, have been tabulated.

"We're not saying that pollution controls are bad, just that there is a cost involved and it's important to know what it is," Tretheway explained. "The cost is not insignificant."

The study looked at broad trends in the pulp and paper industry. Using the most recent federal government and industry statistics, Tretheway and Oum found overall pulp and paper productivity to be in the bottom third of all Canadian industries.

Pulp and paper accounts for nine per cent of all domestic export earnings and the industry makes up 3.2 per cent of the Canadian gross national product. Over the past few years, the industry has invested large amounts of capital, and there has been a trend towards consolidating small operations.

Michael Tretheway

While low productivity in the 1980s may not affect Canada's market share in the short term, a long trend of low productivity could have serious consequences in the future.

"A quarter of a percentage point loss in productivity, compounded over ten years could make us uncompetitive on the global market," Tretheway explained.

Study results indicated that trying to maintain small forest products operations may also restrict Canada's future competitiveness.

"Thwarting consolidation may not be valuable," Tretheway said.

A second study is already under way to look at pulp and paper productivity in Canada's two closest competitors—the United States and Sweden.

"We want to find out if Canada is losing ground to the U.S.A.," Tretheway said. "They have invested more heavily in the industry than we have. Has this resulted in greater productivity?"

In Sweden, the pulp and paper industry is bypassing the global newsprint market and directing its products to a market for high-quality papers, such as those used in glossy magazines. Every level of forestry, from selection of tree species to manufacturing the end product, has been integrated into the industry strategy.

"If that kind of strategy has been successful, Canada might want to look at its own forest management operations," Tretheway said. "In silviculture, for example, it might be wrong to plant the same kind of tree as was harvested. What are we going to be using that tree for in the future?"

Canadian forest products may also face new competitors such as Australian eucalyptus, a faster-growing species, that produces a lower-cost product.

"Australia has the potential to take forest products business away from Canada in the future," Tretheway said.

Photo by Warren Schmidt

Syd Butler (left) and Roy Bentley of UBC's Language Education faculty visited 101-year-old Rachel Houghton-Brown at University Hospital's extended care unit to present her with a copy of their new book, "Writing Life Stories: A Lifewriting Anthology" published by the Centre for Continuing Education. (Mrs. Houghton-Brown is accompanied by her daughter, Gladys Rekert.) The book compiles stories and poems written by students who took the course taught by Bentley and Butler.

Doctoral thesis

Prenatal plan ignores family

By Gavin Wilson

Physicians should include the families of pregnant women in prenatal education, a doctoral thesis by UBC graduate Irene Strychar recommends.

The study found that while family members are one of the most important sources of information on health and pregnancy, they are often neglected in pre-natal planning.

"Health professionals really haven't tapped into this yet," said Strychar, who completed her PhD in Adult Education this spring.

Family members are quick to offer well-intentioned advice, but little of their information is based on current medical knowledge, said Strychar. And in some cases, women were even told by family members to ignore doctors' advice.

Her thesis was based on a survey of new mothers on their knowledge of the dangers of low birth weights for babies.

Low birth weights affect about five percent of babies and are often caused by the mother's use of cigarettes or alcohol and insufficient weight gain during pregnancy.

Strychar asked women where they received their information on the perils of low birth weight. Reading, physicians, family, friends and pre-natal classes topped the list.

Most of the women said they compared their weight gain during pregnancy with that of their pregnant friends.

"But comparing with friends is not always appropriate," warned Strychar. "It could have serious implications for your baby if your friend's height and weight are different than yours."

The survey also found that friends of pregnant smokers almost invariably said it was okay to continue smoking. As well, there was often an erroneous belief that drinking alcohol in moderation is acceptable during pregnancy.

Strychar came to her conclusions after surveying new mothers on their knowledge of the dangers facing babies with low birth weights. Interviews were conducted with 127 women who had just given birth in Vancouver area hospitals. Their ages ranged from 16 to 46.

Babies with birth weights under 2500 grams (the norm is 3,000) face a much greater risk of a variety of problems including respiratory complications, birth defects, learning disabilities, morbidity, retardation — even death.

Strychar is currently doing post-doctoral studies at Pennsylvania State University. She takes a teaching post at the University of Montreal next year.

Exec courses help upgrade employees

By Jo Moss

UBC's Executive Programmes are helping companies stay ahead of the competition by developing the most important aspect of any business—employees.

"Human capital, your own or that of those you manage, is the major asset of today's executive," said Bruce Fauman, director of Executive Programmes in the Faculty of Commerce. "We're here to help companies maintain and upgrade that investment."

Last year, more than 2,000 middle and senior managers participated in seminars and workshops at the university. They came from businesses such as pulp and paper plants, utilities, marinas and manufacturing operations. While the majority are from B.C., an increasing number come from other provinces, including Quebec, and even from overseas, Fauman said.

From its beginnings as a small, specialized service in 1969, Executive Programmes has grown to involve hundreds of top-level seminar leaders and a program of more than 70 workshops.

Most courses are one- or two-day sessions, although some run a full week. They range from marketing, finance and computers, and operations and systems controls to personal development and human resources.

"Many of our recent programs reflect current interest in international business and finance," Fauman explained. But other skills programs are consistently popular. Seminars like Speed Reading for Executives and Professionals, Financial Management for Non-Financial Managers, and The Skillful Negotiator draw capacity enrolment.

An academic background is not required for any Executive Programmes course, Fauman said. And if a firm can't find a seminar that suits its needs, the Executive Programmes staff will arrange one that's tailor-made on site—anywhere in Canada.

"Management training doesn't end when you're 25, it's a lifelong process for any person or business that wants to stay competitive," Fauman said.

Interest in sharks sparked by aquarium

By Gavin Wilson

If James Powlick's life was a song, it would be the relentless theme from the movie Jaws.

Powlick, who received a B.Sc. honors degree last May, became a shark expert while still an undergraduate. And he has his sights set on becoming one of Canada's leading authorities on those feared denizens of the deep.

Powlick's interest in marine biology began as a hobby when he first started to raise tropical fish in an aquarium at the age of 12.

He still has an aquarium — patrolled by a pair of piranhas named Laverne and Shirley — but along the way his hobby became serious study.

While still doing undergraduate course work in a joint oceanography-zoology program at UBC, Powlick taught a course on sharks at the Vancouver Aquarium. He now intends to pursue graduate studies.

Sharks are seldom studied in Canada, but Powlick feels they should be. It's a little-known fact, but there are 10 species of sharks in B.C. waters, he says.

They range from the common dogfish to the 45-foot-long basking shark, the world's second-largest fish, which — what a relief — eats only plankton, not people.

Even the Great White, made famous by Hollywood, has been found in these waters.

But Powlick believes the popular notion of sharks as vicious predators is overblown. Aside from the odd, well-publicized attack, sharks are actually "quite docile," he said.

Powlick likes to point out that more people die from bee stings than from shark attacks.

B.C. student wins bronze

David McKinnon, a 17-year-old St. George's high school student, won a bronze medal at the 29th annual Mathematics Olympics held in Canberra, Australia, in July.

UBC mathematics professor Geroge Bluman administered the B.C. section of the competition.

calendar

Sept. 11-24

Monday, Sept. 12

Seminar
Clonal Immunoglobulin Gene Rearrangements in Blood B Lymphocytes of Multiple Myeloma Patients. Dr. Christian Schmitt, Speaker. For information call 877-6010. Lecture Theatre, B.C. Cancer Research Centre, 601 W 10th Ave. 12:00 - 1:00 p.m.

BIOCHEMICAL DISCUSSION GROUP SEMINAR
Mechanisms of replication for information-carrying scrapie prions—A theorist's view. Dr. Peter Wills, Dept. Physics, Univ. of Auckland, Speaker. For information call Susan at 228-5925. Lecture Hall #4, IRC Building. 4:00 p.m.

Wednesday, Sept. 14

Seminar
The Effects of Retinoic Acid on the Developing Chick Face. Dr. Sarah E. Wedden, Nato Postodoctoral Fellow, Dept. of Cellular & Molecular Physiology, Harvard Medical School, Speaker. For information call Dr. V.M. Diewert, 228-3592. Room 388, J.B. Macdonald Building. 12:30-1:30 p.m.

Seminar
Music & comparative phonotics in language teaching & training (English & Chinese). Raymond Huang, Speaker. Free Admission. For information call Sabrina at 228-2746. Asian Centre Seminar Room 604. 4:30 p.m.

Demonstration
Tai Chi routines and a brief explanation of 4 main schools of Chinese Martial Arts. Dr. Yuan Shao-Liang, Speaker. Free admission. For information call Sabrina at 228-2746. Asian Centre Auditorium. 12:30 p.m.

Thursday, Sept. 15

Medical Grand Rounds
Herpes Simplex Virus - A New Diagnostic Tool. Dr. S. Sacks, Univ. Hospital, UBC Site, Speaker. For information call Kathy at 228-7737. Room G-279, HSCH - ACU. 12:00 p.m. (noon).

Institute Seminar
Women in Development: India. Dr. Govind Kelkar, Nehru Library, Delhi & Dr. Susheela Kaushik, Delhi Univ., Speakers. Free Admission - discussion following. For information call Katie at 228-4688. Seminar Room 604, Asian Centre. 12:30-2:30 p.m.

Friday, Sept. 16

Medical Genetics Seminar
Reports from XVI International Congress of Genetics. Faculty, Medical Genetics, UBC, Sponsoring Department. For information call Debbie 228-5311. Parentcraft Room, Main Floor, Grace Hospital, 4490 Oak Street, Vancouver. 1:00 p.m.

First Nations House of Learning - Advisory Committee Meeting
UBC Deans, Dept. Heads & faculty are welcome to attend. Please RVSP by Sept. 9. For information call Ethel at 222-8940. Salon B & C, Faculty Club. 9:00 a.m. - 4:00 p.m.

Saturday, Sept. 17

Field Trip
Petroglyph Tour. Beth Hill, Author of Indian Petroglyphs of the Pacific Northwest, Speaker. Fee $58. Museum Members $52, bring lunch. For information call Kay at 222-5237. Meet at Horseshoe Bay Ferry Terminal. 7:00 a.m. - 7:00 p.m.

Sunday, Sept. 18

Geology Field Trip to Mount Baker
Fossils, Fire & Ice. Wilbert Danner, PhD., Dept. of Geological Sciences, U.B.C., Speaker. Fee $58, bring lunch, sturdy shoes. For information call Kay 222-5237. Meet at Winter Sports Centre, UBC. 8:30 a.m. - 6:00 p.m.

Tuesday, Sept. 20

Lectures in Modern Chemistry, Chemistry Seminar
On the Mechanism of Energy Storage by the Other Photosynthetic Systems in Nature. Prof. Mostafa F. Amr. El-Sayed. Dept. of Chem., UCLA, Speaker. Refreshments will be served in Rm. 250 from 12:30 p.m., prior to the lecture. For information call Carolyn at 228-3299. Room 250, Chemistry Building. 1:00 p.m.

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Editor-in-Chief: Don Whiteley
Editor: Howard Fluxgold
Contributors: Jo Moss, Debora Sweeney, Gavin Wilson.

Photo by Bob Jemieson

Cam Grant, as member of Canada's Olympic swim team trains at the UBC Aquatic Centre. The team trained at the centre from Aug. 24-Sept. 9 in preparation for the Seoul Olympics later this month.

CALENDAR DEADLINES

For events in the Period Sept. 25 to Oct.8 notices must be submitted on proper Calendar forms no later than noon on Thursday, Sept. 15 to the Community Relations Office, 6328 Memorial Road, Room 207, Old Administration Building. For more information call 228-3131.

Wednesday, Sept. 21

Academic Lecture
Living in Today's Family - Psychiatric Effects of Divorce & Remarriage. Dr. Laura Doyle, Clinical Instructor, Child Psychiatry, Children's Hospital, Speaker. For information call Gisela at 875-2025. Room D308, Acute Care Building, Shaughnessy Hospital. 8:30 a.m. - 9:30 a.m.

Thursday, Sept. 22

Seminar/Lecture
Expertise in Tutoring and the Psychology of Subtle Control. Dr. Mark Lepper, Dept. of Social Psychology, Stanford Univ., Speaker. For information call 228-5214. Room 1211, Scarfe Bldg. 1:30 p.m. - 3:00 p.m.

Friday, Sept. 23

Medical Genetics Seminar
Retrotransposons in the Human genome. Dr. Dixie Mager, Terry Fox Lab, B.C. Cancer Research Centre, VGH, Speaker. For information call Debbie at 228-5311. Parentcraft Room, Main Floor, Grace Hospital,4490ak St.

NOTICES

Neville Scarfe Children's Garden
Be sure to visit the Neville Scarfe Children's Garden located west of the Education Building. There is no charge to use the garden and it is open all year long. Families interested in planting, weeding and watering in the garden should contact Jo-Anne Naslund at 434-1081 or 228-3767.

Special Issue on Africa and the French Caribbean
Contemporary French Civilization is pleased to announce the preparation for 1989 of a major special issue exclusively devoted to Francophone Africa (North Africa and Black Africa) and the Caribbean. Articles in English or in French, 15-20 typed pages long must be submitted by March 1, 1989 on any contemporary culture-civilization topic involving a country or a region of Africa, Madagascar or the Caribbean (including Haiti). For other Francophone countries, please check with the guest-editor beforehand. Contributions should be of high quality in socio-cultural, socio-political, artistic fields, etc., showing an original approach to some aspect of the cultural complex of African, Malagasy or Caribbean society of the past 20-25 years. For information call Dr. Claude Bouygues, African Literatures, French Department at 228-2879.

Golf Lessons
Get into the swing of things this spring with Golf Lessons. Community Sport Services is once again offering Golf Lessons at the basic or intermediate level. Tuition waivers not acceptable. For information call 228-3688.

Language Exchange Program
Exchanging Languages on a One-to-One Basis. *For information call* 228-5021. *International* House. Office Hours 9:30 a.m.-4:30 p.m.

1988/89 First Nations Studies Calendar
The 1988-89 First Nations Studies Calendar is being updated and revised for accuracy. The Calendar includes courses and programs related in part or in total to First Nations people. The deadline for submissions of revisions, changes, or new information is extended to Sept. 16. For information call 222-8940.

UBC Access—Guided Independent Study
To obtain a copy of our new 1988/89 UBC calendar of UBC credit courses by distance education, call 228-6565 or drop by our office, Room 324, Library Processing Building.

Chinese Silk Painting Exhibition
Sponsored by Institute of Asian Research, Caroline Ching-Hua Shen. Free admission. For information call 228-2746. Auditorium, Asian Centre. 11:00 a.m. - 5:30 p.m.

Traffic and Security
The Traffic and Security Department announce an increase in visitor parking rates effective August 2. Rates for surface lots and parkades will be 75 cents an hour, or portion thereof, to a maximum of $5 a day. After 5:00 p.m., the evening flat rate will be $2. Meter rates will be 75 cents an hour; 20 cents for 25 minutes. The new parkade in the SUB area is progressing on schedule and is expected to be opened in mid-December.

Theatre Performance - Play
Sept. 14 - 24. Just Between Ourselves. By Alan Ayckbourn. Directed by Roy Surette. For information and reservations call 228-2678 or come to Room 207 in the Theatre Building. Main *Stage - Frederic Wood Theatre. 8:00 p.m.* (Matinees 2:00 p.m.).

UBC Fine Arts Gallery
Sept. 6 - Oct. 1. Marion Wagschal: Recent Paintings and Drawings. Hours: Tues. - Fri., 10:00 a.m. - 5:00 p.m. Sat., 12:00 p.m. (noon) - 5:00 p.m. For information call 228-4381. Basement Main Library Bldg.

Library Copy Card Sale
10% this week only Sept. 6-9. $5 cards sold in most libraries; $10, $20 or higher cards in Copy Service, Main or Woodward. Cash/cheque/departmental requisition. For information call 228-2854. Copy Service Office, Main Library.

Library Tours
Tours of Main and Sedgewick Libraries will be given weekdays, September 12 - 23 at 10:30 a.m. and 12:30 p.m. Meet in the Main Library entrance. Tours last about 45 minutes. All welcome.

The UBYSSEY Celebrates 70 Years
The highlight of this year's Homecoming is the celebration of The Ubyssey's 70th Anniversary. The Homecoming Committee, the Celebration "70" Committee, and the current editorial staff invite all old Ubyssey hacks and UBC graduates who have followed careers in journalism to a gala dinner to be held October 6, 1988, at UBC. In addition to this libel-laden affair, they invite all of you to submit material for a Special 70th Anniversary Issue—providing it is under 600 words, and received no later than Sept. 16. Personal experiences—the horrors of linetape to the pleasures of deadlines—critical commentaries and current views on any political or social issues, graphics, photos, or just the truth, the whole truth, and nothing but the truth, are all welcome testimony. Please mail submissions, or for further information contact Iolanda Weisz, AMS Archivist, SUB Building, UBC, Vancouver, B.C. V6Y 2A5. Telephone: (604) 228-5320.

Surplus Equipment Recycling Facility - Departmental Sales
Sales begin Sept. 7 - All surplus items. For information call 228-2813. Every Wednesday 12:00 p.m. - 3:00 p.m. Task Force Bldg. 2352 Health Science Mall.

Department of Psychology
Individuals 18 and older are needed for a research project on changes in memory across the adult life span. For information call Jo AnnMiller at 228-4772.

Language Programs & Services
Non-credit conversational programs in French, Spanish, Japanese, Cantonese and Chinese begin the week of Sept. 26. Also offered is Business Japanese. Saturday Morning classes in Business French, French Lyrics and French Music, as well as Teaching Languages to adults *are also available For more information*, call 222-5227.

Botanical Garden
Open Daily 10:00 a.m.-6:00 p.m., Sept. 1-Oct. 10 Admission $2. Free on Wednesdays.

Fungus helps protect tomatoes

By Jo Moss

A UBC plant scientist has developed a natural weapon to help B.C.'s tomato growers fight a virulent fungus which is devastating their crops.

The weapon is another fungus that's closely related to the one causing the problem. Bob Copeman in UBC's Plant Science Department has found if it's applied to tomato seedlings as they begin to sprout, it prevents or delays the destructive fungus from becoming established.

The fungal weapon is easy and inexpensive to apply, and completely non-toxic, Copeman said.

"We don't know exactly how it works, but it definitely has a protecting effect."

Copeman is hoping for temporary licensing from the federal government so that commercial growers won't have to watch another year's profits wilt away.

The fungus epidemic is hitting the tomato industry at a critical time, just as growers have established a place in the produce market with a high quality product—unblemished, red tomatoes that consumers will pay premium prices for.

There are fewer than 30 commercial growers in the Fraser Valley, but better cultivation techniques and an aggressive marketing campaign over the last three years has turned a struggling industry into a thriving multi-million dollar enterprise.

Growers are proud of the fact that their product is almost entirely naturally produced. The B.C. greenhouse industry is a world leader in biological pest control, Copeman said.

The fungus disease is spreading rapidly through commercial greenhouses and could wipe out the tomato industry. It kills tomato plants by attacking the roots and rotting them away.

"It's devastating growers," Copeman said. "Some of them are losing 20 to 30 per cent of their plants before harvesting."

Because growers want to avoid using toxic pesticides, Copeman looked for what plant scientists call a cross-protecting strain, a fungus from the same family that would negate the effects of the disease-causing fungus.

The 'good guy' fungus he is working with is actually a combination of three different, but related, fungi that occur naturally in soil, but are absent from the hygienic sawdust commercial tomato growers use.