

# REPORTS

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## UBC prof develops 'cookbook' for Indians

A five-year research project designed to show that the health of Canada's native Indian population can be improved by reviving the use of traditional Indian foods is nearing completion at the University of B.C.

Dr. Harriet Kuhnlein, an associate professor in UBC's School of Family and Nutritional Sciences, said the results of her study with the Nuxalk Nation of Bella Coola Indians, funded by Health and Welfare Canada as a demonstration project, can be applied anywhere in Canada.

"The aim of the project is to demonstrate that the health of native people can be improved by reviving the use of locally available, but sometimes neglected foods that were part of their diet in the past. The results will enable native people anywhere in Canada to realize the potential of local food resources that may also be under-utilized," Dr. Kuhnlein said.

The Bella Coola project, the outgrowth of earlier work by Dr. Kuhnlein among the Hopi Indians in the U.S., began in 1980 following discussions with Archie Pootlass, the Nuxalk band manager and at that time acting director of the Union of B.C. Indian Chiefs, and Edward Moody, the elected chief of the Nuxalk. It has been guided locally by the Nuxalk elders; Sandy Moody, the public health nurse; and Rose Hans, the band health representative.

A series of intensive interviews carried out by Dr. Kuhnlein's research team disclosed that over the past 70 years the family use of locally available berries, greens, roots and wild game had declined significantly, while the use of fish and certain other seafood has remained more or less constant.

Followup studies of food preferences, the availability of traditional Nuxalk foods locally and analyses of the foods themselves have served as the basis for a food and nutrition handbook. A key element in the project's educational program, the handbook is currently being distributed to homes on the reserve in Bella Coola, which is about 500 miles northwest of Vancouver as the crow flies.

"We also did a baseline health assessment, including blood tests, on some 70 per cent of the 600 people who lived on the reserve in 1983," Dr. Kuhnlein said. "We found that many of the people have low body stores of iron, particularly the women, and, in addition, many adults have low levels of vitamin A and folic acid. There's also a high incidence of dental caries, particularly among children, as well as obesity and a general lack of fitness among adolescents and adults."

The handbook prepared under the project assumes that fish and seafood will continue to be a major component of the

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See NATIVE



*And you thought you had a lot of Christmas baking to do . . . In the past few weeks Irene Nowak, a pastry decorator in UBC's food services department, has turned out more than 1,000 gingerbread cookies, 500 dozen shortbread cookies, Christmas cakes of all sizes and descriptions and such specialty items as cookies with personalized holiday messages. Her handiwork is on sale at the Food Services' bake shops located in SUB and Ponderosa cafeterias.*

## Some facilities take Yule break

Some facilities on campus will be closed over the Christmas season and others will be operating on reduced hours.

The official closure dates for the University are Tuesday, Dec. 25, Wednesday, Dec. 26, and Tuesday, Jan. 1. Details on food service hours for the month of December are listed in the notice section of the calendar of events on page 4.

The Aquatic Centre will be open for public swimming daily, except for Christmas, Boxing Day and New Year's Day. The Museum of Anthropology is open regular hours except for closures on Dec. 25 and 26.

The staff of *UBC Reports* would like to wish readers an enjoyable Christmas season. See you in January.

## UBC active in 3-year study on acid rain

UBC is participating in a \$1-million study on acid rain, the environmental problem plaguing North America, Europe and other parts of the world.

Acid rain is caused when substances in emissions from industry and other sources undergo chemical reactions in the atmosphere, are converted to acids and fall to the earth as rain.

Involved with UBC in the three-year project financed by the U.S. Environmental Protection Agency are SIMS (the Society for Industrial and Applied Mathematics), Stanford University and the Rand Corporation.

Principal investigators of the UBC team, both from the Department of Statistics, are Dr. A.J. Petkau and department head Dr. J.V. Zidek.

"Although we all agree acid rain can have a terrible effect on the environment, we can't agree on its sources, in particular on how much of it is the result of industry and other human activities, and how much of it is natural," Dr. Zidek said.

"Volcanos, for example, can emit thousands of tons of material into the atmosphere which can be converted to

acid rain. The precise measurement of the impact of acid rain, necessary for regulation and control, is exceedingly difficult.

"The solutions involve mathematical and statistical problems of great variety and depth. In the end, we intend to estimate the naturally-caused levels of acid rain as a fraction of the total amount present in any location.

"In particular, we anticipate our statistical methods will allow us to detect the impact of acid rain, measure trends, map acid rain desposition levels over broad regions and over time, and determine how those levels vary from region to region."

A seminar series has been started at UBC to exchange knowledge on acid rain among researchers in government, industry and universities.

Other members of the UBC team are Dr. Albert Marshall of the statistics department, Dr. William Caselton from civil engineering, and two members of the statistics department of the University of Washington, Dr. Peter Guttorp and Dr. Paul D. Sampson.

## PRESIDENT CONVEYS HIS THANKS

UBC President George Pedersen is in Asia this week on behalf of the federal government, attending an education conference and renewing UBC's many friendships in the area. For the last edition of *UBC Reports* before the holiday break, he wished to extend a message to faculty, staff and students:

On behalf of myself and my wife Joan, I should like to take this opportunity to wish each and every one of you a happy holiday season. I hope that the Christmas period will provide a welcome rest and an enjoyable time to share with family and friends.

The year has been a demanding one for the University and the thousands of people who are a part of our community. You have all made sacrifices. From these difficult times, however, I am convinced we will emerge a healthier university, whose commitment to quality is undiminished. Our challenges today must become our opportunities.

Meanwhile, the co-operation and support shown by all of you is appreciated. For your efforts, for your extra effort, I give you my sincere thanks.

I hope that you all have a warm and happy holiday and a good Christmas.



George and Joan Pedersen

# Dean says forest industry faces changing times, many challenges

*UBC's Faculty of Forestry, first among Canada's six forestry schools in total enrolment, is undergoing changes that reflect shifts within the industry and the profession itself. It is just now leaving a period of adolescence and entering a new phase of maturity. Unlike medicine, engineering, agriculture and other fields which sub-divided into specialized disciplines decades ago, forestry's only now on the threshold of specialization. Confronting the profession is a fundamental redirection of the industry and of national forest policies as Canada tries to regain its competitive edge in international markets for forest products. In a continuing series of interviews that will highlight the University's faculties, schools and institutes UBC Reports explored the future of the Faculty of Forestry with Dean Robert W. Kennedy.*

**UBC Reports. What are some of the challenges facing the industry in the future?**

**Dr. Kennedy.** There are significant changes facing the industry on the B.C. coast. The delivered cost of logs to mills is increasing dramatically, and the logs are now smaller in dimension than the mills were originally designed to take. The coastal industry will have to move into the specialty market, with kiln-dried material, rather than continue to produce green dimension lumber as a commodity product. They will have to become much more in tune with markets overseas and in the U.S. for higher value-added products. For example, since the coast still has some virgin timber, it can make clear products — products that are free of knots or other blemishes if you like — by being much more judicious in the cutting at the mill. In some mills, they have already increased the amount of clear products from hemlock by 10 per cent. Their goal is to recover 30 per cent of the lumber essentially in the form of clear specialty products.

The interior industry as yet doesn't have the logging and transportation costs of the coast, and their mills are newer. But they are facing severe insect problems, particularly with mountain pine and spruce bark beetles. The insects ravage mature and over-mature stands, and unless they are

## Native

*Continued from Page 1*

diet of the Nuxalk people. "Fortunately, there is no shortage of protein in the traditional local diet," says Dr. Kuhnlein.

The handbook encourages the revival of the use of a traditional food fat from the ooligan, a small fish that is netted for a brief period in early spring. "The ooligan grease is very rich in vitamins A and E," Dr. Kuhnlein said, "and we suggest it as a substitute for lard and cooking oils."

The traditional and somewhat neglected foods that are most recommended for revival are berries and greens, both of which are available in substantial quantities locally. "Bella Coola is berry heaven," is the way Dr. Kuhnlein puts it. "There are at least 22 different species growing in the area. The handbook gives details for identifying, preparing and preserving most of them."

Dr. Kuhnlein, who's personally tried all the food recommended in the handbook, says the clover has a taste much like fresh peas, silverweed roots have a nutlike flavor and the bulbs of the local rice plants have a sweet taste when cooked.

The research group is also encouraging the Nuxalk people to begin or expand their gardening activities by incorporating some of the wild food plants into garden plots.

Dr. Kuhnlein anticipates that there will be an improvement in health on the reserve when the health assessments are repeated at the end of the education program, which is being conducted by Louise Hilland and Emily Schooner, locally trained nutrition aides.

checked the Interior will be in a serious timber deficit in a few years.

**UBC Reports. Are we doing any research here at UBC that can help the industry?**

**Dr. Kennedy.** The Faculty of Forestry and others at UBC have been working with industry and with some people at Simon Fraser University developing traps using chemicals attractive to beetles. Some of these are in the commercial market place now. And our remote sensing people have developed a method of identifying outbreaks of beetle attacks by interpreting special aerial photographs. Their work is so precise they can detect an outbreak before there is any sign visible to someone on the ground. A major problem, though, is accessibility to the damaged areas. Some areas are so remote that you can't get to them and they're just going to go down.

Our research funding is increasing. As you know, the federal government has asked us to take on a special task of doing research in forest policy and economic analysis, an area that Canada is terribly deficient in compared with its major international competitors. The federal grant for that research is \$1 million per year. In addition, the faculty is working on about 80 different research projects funded for a total of \$1.5 million from various research granting agencies.

A unique situation that other professions don't have to contend with is that we do not have a forestry research granting agency. Medicine has the Medical Research Council in Canada, and researchers in the Faculties of Science, Agriculture and Applied Science have special grant selection committees within the Natural Sciences and Engineering Research Council. But our grant applications end up being assessed by a committee of botanists, for example, or civil engineers, or population biologists.

**UBC Reports. Are there certain research areas that will be more important than others in the future?**

**Dr. Kennedy.** We will have to emphasize our traditional subjects such as the supply of nutrients to make trees grow, economics, overall forest policies, recreation, wildlife management and others. But there are other opportunities. There is the whole area of biotechnology and its application to forestry. There are certain fungi, for example, that remove the lignin holding cellulose together in wood. Separating the cellulose fibres is an essential step in making pulp and paper. At



Robert Kennedy

the moment, a variety of chemical agents are used to accomplish this. Perhaps much more efficient methods can be found to pulp wood using biotechnology. Profs. Reed and Sziklai of our faculty are organizing a national conference on biotechnology in forestry, sponsored by the Science Council of Canada, to be held in Ottawa in February.

Another area of research is wood utilization. We don't know enough about the strength of wood and so wooden homes and other industrial wood structures are over-built just to make sure. If we could reduce the volume of wood used by just 10 per cent, through more rational design methods based on a better understanding of engineering properties of wood, we could make wood that much more competitive compared with other materials.

**UBC Reports. How are you preparing students to meet challenges in their profession?**

**Dr. Kennedy.** We are trying to give the students a multi-use perspective. No single group in society has exclusive rights to the forests. There are many uses for forests — hydrology or watershed management, fisheries, timber production, range management for cattle, wildlife management and, of course, recreation. The Meares Island controversy is an example of land use conflict that should be resolved through a multiple use approach.

Forestry is just now at the stage that engineering was decades ago before it developed totally separate streams. Today, we wouldn't think of having a monolithic engineering school. There are civil engineers, mining engineers and others. That sub-division is beginning to take place in Forestry. We now have four different streams for students leading to two degrees at the undergraduate level. We are accommodating the students within a four-year program now, rather than the old five-year one.

About 70 per cent of our students are from the Lower Mainland. Yet the Interior of the province is now producing forest products that are worth roughly twice as much as the coast. This is a complete reversal from the situation thirty years ago. The Interior is where the action is now. For that reason we want to attract more students from the Interior, and we are making arrangements for these students to be able to take the equivalent of first-year forestry at their local community colleges so they can come here for their final three years.

**UBC Reports. Foresters don't have a reputation for speaking up on public issues involving forestry.**

**Dr. Kennedy.** In this province there are two major reasons for that. The first is the complexity of forestry itself and our limited understanding of it. Foresters themselves often disagree on public issues. The profession is often as divided as society. The other is the particular institutionalized arrangement of forestry in B.C. The vast majority of productive land is owned by the provincial government, and companies act as tenants charged with managing the resource. This too often results in a confrontational situation, where foresters feel their allegiance is owed either to their public or private employer. This isn't the case in Sweden or the U.S., by the way, where there's a greater ownership mix between public and private sectors.

**UBC Reports. What's the future of the industry in B.C.?**

**Dr. Kennedy.** The opportunities in this province are unparalleled. We have better forest soils and climate than any other part of Canada. This is especially true for the south coast of the province. If we can't make a go of it here, the industry is doomed in all of Canada. Forestry will remain the major industry of B.C. for some time to come, if we have the collective will to invest for the future.



Meredith Wadman

## 'Ordinary' Meredith off to Oxford

Rhodes Scholar Meredith Wadman, speaking to *UBC Reports*, observed that much of the publicity she has received since her scholarship was announced last week has made her sound like some kind of wonder-woman activist. Please, could we make her seem more ordinary. Here, then, are a few of the accomplishments of the "ordinary" Ms. Wadman, a 24-year-old second-year medical student at UBC who will complete her degree at Oxford:

- A member of the cross-country, basketball and field hockey teams while at Magee secondary school;
  - First in her class and president of the student council at Magee;
  - Winner of the Soroptimist International Citizenship Award, for outstanding contribution in her chosen fields of endeavour, and for exemplary citizenship;
  - A graduate with distinction in Human Biology from Stanford University;
  - A summer worker with Operation Crossroads medical teams in 1981 and 1984 in Ghana and the Ivory Coast;
  - A visitor to health clinics in Algeria, Egypt and Nepal in 1982 and 1982;
  - A crew member on small salmon trollers off the coast of Alaska;
  - A hiker who made it to the top of the Thorung La Pass in Nepal and the summit of Mt. Toubkalt in Morocco;
  - An accomplished musician (piano and saxophone).
- Personable, yes. Ordinary, no. But then ordinary people don't become Rhodes Scholars.

Ms. Wadman said she hopes to work after graduation in the areas of clinical and educational medicine, in small communities in Canada and overseas.

Her long-term goal is to be involved at the international level, possibly with the World Health Organization, in the planning of medical programs, but she wants to spend time first in small communities to see how things really work.

Administrators, she feels, sometimes lose touch with the realities and the needs of ordinary people.

Ms. Wadman is only the second B.C. woman to win a 'Rhodes' since the 80-year-old scholarships became available to women in 1976. UBC student Catherine Milsum was the first in 1978.

## A DAY IN A LIFE AT UBC

# Meet Joe Nagel: curator and entrepreneur

One of Joe Nagel's days last week was partly taken up by a visitor from Portland.

Another part of the same day was occupied by a visitor from Germany.

There were many visitors from Vancouver, and even more from the campus.

Joe Nagel is curator of the UBC Geological Museum, located on the main floor of the Geological Sciences Building, and the only certainty about a day in his life is that the day will be fragmented and the curator busy.

On the day in question, the visitor from Portland wanted information about the museum and how it is operated, so that something similar might become part of a \$10 million natural history museum he hopes to establish in Oregon.

Curator Nagel was happy to oblige, but he admits he enjoyed his visitor from Germany even more.

"He's a collector," Mr. Nagel explained, "and he bought about \$300 worth of gold specimens."

Most museums, of course, have souvenir shops, but few can be as fascinating as the 800-square-foot "store" that Mr. Nagel operates as part of his duties as museum curator. The decor isn't fancy, but two large display cases carry crystal specimens in the hundreds, each one a unique work of art created by nature.

"I usually have about one thousand items for sale at any one time," said Mr. Nagel, "and they range in price from \$1 to about \$1,500."

Hundreds of the smaller specimens are displayed and sold in clear plastic boxes —

pieces of crystalized copper, gold embedded in quartz, topaz, galena, amethyst, and countless others.

Each piece was handpicked by the curator, and he has also prepared personally the explanatory labels that go with each sale. He admits that this retailing operation takes up to a third of his time, but the reward to the University is considerable.

More than two-thirds of the pieces currently on display in the museum proper weren't there when Joe Nagel completed his master's program in geology at UBC in 1974 and became curator. The collection has been built up through the sales side of the operation.

"Just since 1980," Mr. Nagel said, "we've been able to add 600 pieces, at least 95 per cent of them financed through the shop."

Although the specimens for sale come from many sources, the major single source is an annual mineral show held every February in Tucson, Arizona. From the many thousands of specimens displayed, some 500 usually wind up back at UBC.

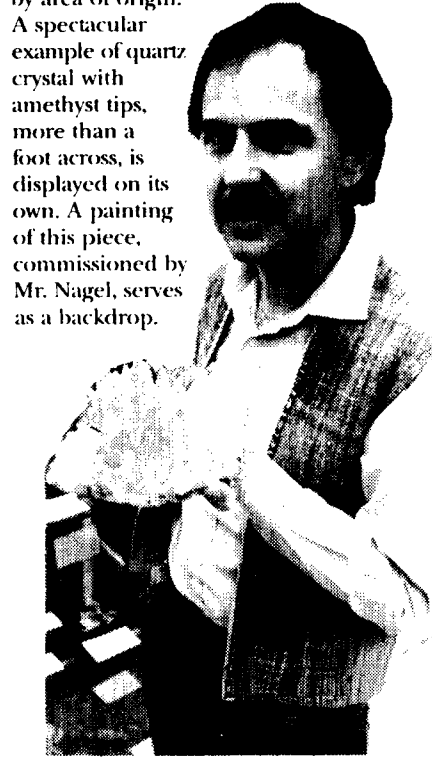
Joe Nagel doesn't offer a money back guarantee on his works of art, but he has introduced a trade-in scheme that has proved popular. He allows full purchase price credit on any item exchanged for another specimen selling for at least 50 per cent more.

"This encourages a growing and changing interest on the part of collectors, while increasing our ability to carry a wide selection of specimens."

The main museum contains a number

of display cases, showing some quite extraordinary minerals and fossils, many of them grouped by area of origin.

A spectacular example of quartz crystal with amethyst tips, more than a foot across, is displayed on its own. A painting of this piece, commissioned by Mr. Nagel, serves as a backdrop.



Joe Nagel

Another eye-catching display, and one that the curator admits is a great drawing card, is the skeleton of a dinosaur, a 30-foot-long Lambeosaurus that roamed the plains of southern Alberta 80 million years ago.

Despite the spectacle of this part of the museum, and despite the importance of sales, Joe Nagel stressed that the prime purpose of the museum is to serve as a teaching facility. One large section is devoted to displays used by first and second-year geology students — a systematic collection of minerals and fossils, all clearly labelled.

The museum draws about 10,000 visitors a year, and they come from everywhere. This past summer, for example, there were visitors from every province in Canada, from 15 American states, and from 35 other countries. Admission is free.

In addition to his work at UBC, Joe Nagel chairs the public relations committee of the B.C. Museums Association, where the main task now is to organize museum involvement with Expo '86.

For his annual vacation, the curator returns annually to what he describes as the biggest natural history museum in the world — the Galapagos Islands off the coast of Ecuador.

He gives slide shows of the Galapagos, and gives illustrated evening lectures at the museum. But whatever the day has held, the last hour before bed is usually spent playing classical piano.

## CAMPUS PEOPLE

Canada's first Centenary Medal for northern science has been awarded to Dr. J. Ross Mackay, who continues to carry out research in the Arctic even though he retired from teaching in the Department of Geography in 1981.

The medal and a cheque for \$5,000 were presented to Dr. Mackay in Ottawa on Nov. 20 by Governor-General Jeanne Sauve in the presence of distinguished guests.

The Centenary Medal was created in recognition of the 100th anniversary of the International Polar Year (1882-83).

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Sculptures by Richard Prince, an associate professor in UBC's Department of Fine Arts, are currently on display in the Art Gallery of Hamilton in Ontario. Other work by Mr. Prince will go on display in Vancouver for a month beginning Jan. 8 at the Charles Scott Gallery of the Emily Carr School of Art on Granville Island.

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Dr. Gernot Wieland, an associate professor in the Department of English, has been awarded a scholarship by the Alexander von Humboldt Foundation of West Germany. The award will support Dr. Wieland's continuing studies on the Anglo-Saxons in Germany.

## University takes Moli shares

UBC is not "spending millions", as reported in the Vancouver Sun, to take an equity position in a new company, Moli Energy Ltd., that will manufacture batteries based on research work at the University.

The University isn't spending a penny.

UBC has a variety of mechanisms to deal with the transfer of innovations from the University into the commercial marketplace. They take into account the

benefits that should go to the person or group who conceived the innovation, as well as benefits to the University for paying the salaries of the innovators and providing them with facilities.

In most cases, the University negotiates a royalty.

In the case of the new high tech battery, the University has decided to accept shares in the manufacturing company instead of royalties.

## For the innocent, GKT is a better test

A University of B.C. psychologist believes that a long-neglected lie detector test may be almost 100 per cent effective in clearing innocent persons in certain criminal cases.

Recent studies by a UBC research group headed by Dr. William Iacono also suggest that the test, known as the Guilty Knowledge Test (GKT), is no less accurate than the Control Question Test (CQT), the traditional test used in lie detection.

Dr. Iacono emphasizes that he isn't advocating that the traditional test be junked in favor of the GKT, which has not been used outside the laboratory in a real criminal case. "However, our experimental results indicate that the GKT has some significant advantages over the traditional test and I'd like to see some field testing done using both techniques on several cases so that results can be compared."

The standard lie detector (or polygraph) test uses questions that can be answered with a simple yes or no. For example, a suspect involved in a murder case would be asked: "On the night of June 16, did you stab John Doe in the back?"

In the GKT, the suspect would be told that if he killed John Doe, he would know what method was used. The suspect would then be asked to reply to a multiple choice question: "Was John Doe killed with (a) a revolver; (b) a knife; (c) a club; (d) poison?"

Dr. Iacono says that an innocent person would have no particular reason to respond to one option over another in the GKT

question, except by chance. And chance reactions, he says, can be minimized if a series of 10 questions associated with the crime are asked of each suspect.

The GKT, Dr. Iacono points out, used a question format that doesn't accuse the suspect of anything, as does the CQT. "The standard lie detector test could be biased against innocent people, and there are documented cases where an innocent party was sent to prison on the basis of a failed polygraph test. The big advantage of the GKT is that it's almost impossible for an innocent person to fail it."

## New Alumni director must be versatile

A search committee has been set up to find a new executive director of UBC's 100,000-member Alumni Association.

Dr. Peter Jones, who served in that post since 1979, resigned in November to become Dean of Development at the B.C. Institute of Technology. Alumni Association president Kyle Mitchell said that the association had "progressed significantly" under Jones' leadership in terms of volunteer involvement in University-related activities and in alumni giving.

Michael Partridge, chairman of the search committee, said that encouragement of volunteer participation and fundraising would continue to be two key goals of the Alumni Association. "The three major areas of responsibility of the new executive director will be to develop and implement programs designed to increase personal involvement of alumni in UBC affairs, to plan and execute annual fundraising programs and to sustain interest in the University through effective communication vehicles such as publications.

Alumni Fund director Pat Pinder has been appointed acting executive director of the association.

Dr. Iacono bases his support of the GKT on the results of experiments with student volunteers at UBC.

One group of students — designated the guilty group — was given details of a simulated apartment burglary, which they viewed on closed-circuit television. "Innocent" subjects viewed a videotape depicting scenes of the interior of another apartment, this time with no crime committed.

Each member of both groups was then questioned while hooked up to the polygraph, which measures a series of body responses, including respiration, blood pressure and electrical resistance of the skin.

Dr. Iacono and his associates were able to classify accurately 100 per cent of the innocent subjects and 88 per cent of the guilty participants, for an overall accuracy rate of 94 per cent.

Dr. Iacono is quick to point out that the GKT, which was developed some 25 years ago by University of Minnesota psychologist David T. Lykken, has some limitations. It is not useful in a situation where the details of a crime have been well publicized and would be known to an innocent person. And questions for the alternative test have to be more carefully constructed than those currently in use for lie detector tests.

Dr. Iacono believes there are some good reasons why the Guilty Knowledge Test has been neglected.

"The conventional wisdom is that the CQT is virtually foolproof," he says. That's by no means certain, however, and there's a growing body of experimental evidence that it is not infallible, particularly with innocent suspects. Then the fact that some details of a crime have to be withheld if the GKT is to be effective doesn't sit well with some segments of society — the news media, for instance. And finally, the GKT is more complex and difficult to administer."

Hovering in the background, too, are some vexing questions in the civil liberties area. "It comes down to whether you're more interested in protecting the rights of the innocent or the possibility that the guilty may go free," Dr. Iacono says.



# Sports facilities open to community

If you're willing to play goal, you play free.

That's one of the ways Paul Trustham entices casual hockey players to the ice rinks at the Thunderbird Winter Sports Centre on weekday afternoons.

Mr. Trustham manages the centre, which also is open to the public for curling, ice skating, squash and racquetball.

The centre has three ice rinks suitable for skating and hockey, six sheets of curling ice, four squash courts and two racquetball courts. The centre is going non-stop from 7 a.m. to 2 a.m., and is usually open all night on weekends. About 45 per cent of this time is used by the off-campus public.

Faculty, staff and students can skate free from 8:30 a.m. to 12:30 p.m. Monday through Friday, or they can play hockey on another rink during these hours.

Afternoons are given over to the public for casual hockey, and this is where the goalies get a break.

"The charge to play hockey for an hour is \$1.50," Mr. Trustham noted, "but sometimes there aren't enough goalies. Waiving the charge for anybody willing to go in the nets means there are usually four good pickup games going every afternoon on the two rinks we use."

Players can rent any equipment they need, including skates, or they can buy equipment at competitive prices. Recreational

skaters, too, have a choice of 330 pairs of rental skates.

And if they are evening visitors, and they are old enough, they also have access to a fully licensed bar that is open daily from 6 p.m. to 1:30 a.m. Snack bar service is also available.

Mr. Trustham said the Christmas period, running from mid-December through early January, is a particularly good time for

off-campus groups, since use of the facilities by students is at a minimum.

He said ice skating or hockey inquiries should be made through 228-6121. For squash or racquetball information, the number is 228-6125.

UBC's indoor swimming pool, used by the public 50 per cent of the time on a regular basis, also becomes even more of a community facility over the holiday break.

The pool will be closed on Christmas Day, Boxing Day and New Year's Day. Otherwise, from Dec. 22 through Jan. 5 it will be open twice a day for public swimming.

All swimming pool information is available through 228-4521.

A broader range of activity — ranging from tennis to modern dance and martial arts — is available to students, faculty, staff and public through Recreation UBC, Rec UBC, for example, offers 49 separate tennis courses, at three levels of proficiency. The 14 martial arts courses include WuShu, TaiChi, Judo and Kendo (weaponry). The number to call for any of these programs is 228-3349 or 228-2982.

UBC's tennis bubble, operated in conjunction with Tennis Canada, is also a public facility, with four courts open daily regardless of the weather. Again, there is even more public time available through the holiday season. For information, call 228-4396.

## Service held for former Arts dean

A memorial service was held in Victoria on Nov. 15 for Dr. Dennis M. Healy, former dean of UBC's Faculty of Arts, who died on Nov. 11 at the age of 72.

Dr. Healy first joined the UBC faculty in 1962 as head of what was then the Department of Romance Studies. He was Dean of Arts from 1965 to 1968.

Dr. Healy is survived by his widow, Eileen, and two sons.

Alison Law, who worked for more than 30 years in the UBC registrar's office, died in Vancouver General Hospital last month at the age of 69. At the time of her retirement in 1979, Miss Law was an admissions officer.

## CALENDAR TO HAVE NEW LOOK

The Calendar section of *UBC Reports* will have a new look in January. The Department of Community Relations has received many requests in the past few months for more news stories in *UBC Reports*. Because of space problems associated with a limited budget and rising publishing costs, we're experimenting with a shorter, general-interest Calendar format to create more space for news in the paper.

The streamlined Calendar will list lectures of interest to a wide campus audience, exhibits, music and theatre performances and items now listed under 'Notices'. In order to keep the Calendar to a page or less, we will no longer be able to list departmental research seminars or lectures geared to a highly specialized audience. Information on specialized seminars and lectures is still available in departmental circulars and on notice boards.

We hope the increased news content will help meet the information needs of the campus community. If you have any questions, please call Community Relations at 228-3131.

# UBC CALENDAR

### CALENDAR DEADLINES

For events in the weeks of Jan. 13 and 20, material must be submitted not later than 4 p.m. on Thursday, Jan. 3. Send notices to UBC Community Relations, 6328 Memorial Road (Old Administration Building). For further information call 228-3131.

### MONDAY, DEC. 17 Cancer Research Seminar.

Radiation and Proliferation: Results Using a Normal Rat Thyroid Cell Line. Dr. Juliet Broising, Cancer Centre, University of Rochester Medical Centre, Lecture Theatre, B.C. Cancer Research Centre, 12 noon.

### The Pedersen Exchange.

The Pedersen Exchange is cancelled until January as the president will be out of town. The exchanges normally take place at 3:30 p.m. each Monday in the Main Library.

### TUESDAY, DEC. 18 Dorothy Somerset Studio.

The Dorothy Somerset Studio presents *Guendoline* by James W. Nichol Dec. 18 to 22. For ticket information, call 228-2678. Dorothy Somerset Studio, 8 p.m.

### WEDNESDAY, DEC. 19 Biochemical Discussion Group Seminar.

A Novel Approach to the Cloning of GMSE. Dr. Gordon Wong, Genetics Institute, Boston, Mass. Lecture Hall 1, Woodward Instructional Resources Centre, 4 p.m.

### FRIDAY, DEC. 21. Medical Genetics Seminar.

New Developments in Chondrodystrophy. Dr. David Rimoin, Medical Genetics, Torrance, Calif. Parentcraft Room, Grace Hospital, 1 p.m.

### TUESDAY, DEC. 25 Christmas Day. University closed.

### WEDNESDAY, DEC. 26 Boxing Day. University closed.

### TUESDAY, JAN. 1 New Year's Day. University closed.

### FRIDAY, JAN. 4 Women's Basketball.

UBC vs. the University of Manitoba. War Memorial Gym, 8 p.m.

### SATURDAY, JAN. 5 Women's Basketball.

UBC vs. Seattle AAU. War Memorial Gym, 8 p.m.

### SUNDAY, JAN. 6 Women's Basketball.

UBC vs. Seattle AAU. War Memorial Gym, 2 p.m.

### MONDAY, JAN. 7 Mechanical Engineering Seminar.

Vortex Model for Vertical Cylinders. S.M. Calisal, Room 1202, Civil and Mechanical Engineering Building, 3:30 p.m.

### Cinema 16. Kamikaze 89. Auditorium, Student Union Building, 6:30 and 8:30 p.m.

### TUESDAY, JAN. 8 Philosophy Lecture.

Scientific Realism: The Deep and the Shallow. Prof. Clifford Hooker, Philosophy, University of Newcastle, N.S.W. Sponsored by the Committee

on Lectures, Penthouse, Buchanan Building, 12:30 p.m.

### Science, Technology and Social Studies Lecture.

Value and Normative Assumptions in Cost-benefit and Risk Analysis. Prof. Clifford Hooker, Philosophy, University of Newcastle, N.S.W. Penthouse, Buchanan Building, 4 p.m.

### WEDNESDAY, JAN. 9 Forestry Seminar.

Forestry in Alberta as Seen on a Recent Tour. Prof. David Tait, Forestry, UBC, Room 166, MacMillan Building, 12:30 p.m.

### Noon-Hour Concert.

Music of Tromboncino, Cara, Crequillon, Dowland, Moulinie and da Milano. Suzie LeBlanc, soprano, and Ray Nurse, lute. Recital Hall, Music Building, 12:30 p.m.

### Leisure and Cultural Studies Seminar.

Power and Cultural Production: The Case of Australian Sport. Brian Stoddart, Liberal Studies, Canberra College of Advanced Education, Penthouse, Buchanan Building, 3:30 p.m.

### THURSDAY, JAN. 10 Physics Colloquium.

Search for Casimir Forces in Atomic Helium. Stephen Lundeen, Physics, University of Notre Dame, Room 201, Hennings Building, 4 p.m.

### FRIDAY, JAN. 11 Swimming/Diving Meet.

UBC vs. the Universities of Alberta and Victoria. UBC Aquatic Centre, 7 p.m.

### Hockey.

UBC vs. the University of Saskatchewan. Thunderbird Winter Sports Centre, 7:30 p.m.

### Recital.

Purcell String Quartet plays works by Mozart and Canadian composers. For further information and tickets, call 980-1854. Recital Hall, Music Building, 8 p.m.

### Women's Basketball.

UBC vs. the University of Calgary. War Memorial Gym, 8 p.m.

### SATURDAY, JAN. 12 Swimming/Diving Meet.

UBC vs. the University of Calgary. UBC Aquatic Centre, 7 p.m.

### Hockey.

UBC vs. the University of Saskatchewan. Thunderbird Winter Sports Centre, 7:30 p.m.

### Women's Basketball.

UBC vs. the University of Lethbridge. War Memorial Gym, 8 p.m.

### Notices . . .

#### Pep Band

The UBC Athletic Department Pep Band is looking for new members for next term. Students and staff interested in joining the band should call 228-3917 or 228-3838. Time involved is three to four hours a week and some playing experience is advised. The emphasis is on having musical fun on an organized basis.

#### Fine Arts Gallery

An exhibition by Salmon Harris is on display in the Fine Arts Gallery in the basement of the Main Library until Dec. 21. The gallery is open Tuesday through Friday from 10 a.m. to 5 p.m. and Saturday from noon to 5 p.m.

#### Painting Missing

A portrait of the late Peter Guichon, founder of the Douglas Lake Ranch, has disappeared from the first floor hallway of the MacMillan Building. The painting is in a grey frame, approximately 26 x 30, and there is an identifying plaque. Anyone who might have a lead as to where the painting might be is asked to call June Binkert, secretary, President's Committee on University Art, 228-5650. No questions will be asked if the painting is returned.

#### Food Service Hours

Food Service outlets on the campus will be closed on the following dates during the Christmas season: Yum Yum's at the Auditorium — closes Dec. 20, reopens Jan. 7; Arts 200 — closes Dec. 7, reopens Jan. 7; Barn Coffee Shop — closes Dec. 21, reopens Jan. 2; EDibles — closes Dec. 7, reopens Jan. 7; IRC Snack Bar — closes Dec. 21, reopens Jan. 2; Ponderosa Snack Bar — closes Dec. 14, reopens Jan. 7; SUBWay Cafeteria closes Dec. 21, reopens Jan. 7. The Bus Stop Coffee Shop will be open weekdays, with the exception of Dec. 25, 26 and Jan. 1.

#### Margaret MacKenzie scholarship.

The Faculty Women's Club of UBC has established a scholarship to honor Margaret MacKenzie, wife of UBC President emeritus Norman MacKenzie. Mrs. MacKenzie, a long-time member of the Faculty Women's Club, has contributed greatly to the University's development. If you would like to contribute to the scholarship, which will be given to a woman student entering UBC for the first time, please send cheques payable to: UBC Margaret MacKenzie Scholarship, c/o Margaret Guy, Department of Financial Services, UBC, 2075 Wesbrook Mall, Vancouver, B.C. V6T 1Z4.

First Class Mail

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