

UBC REPORTS

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By JOHN ARNETT
UBC Reports Staff Writer

If the battle of Waterloo was won on the playing fields of Eton, there is a good possibility that many of the major skirmishes in the continuing battle in this province against problems involving inflation, the economy, energy, and major social concerns will be won in the classrooms and laboratories of UBC.

The British Columbia government is turning increasingly to University of B.C. faculty members to serve on commissions, boards of inquiry, task forces and other bodies designed either to frame legislation or to bring in reports that will form the basis of provincial government action.

Virtually every sector of life in British Columbia is covered by these studies — education, health care, energy policy, real estate, agriculture, the environment, labor-management relations, the forest industry, sports and recreation, and law enforcement.

Eight members of one UBC department alone — the Department of Economics — are undertaking studies for Victoria in areas as diverse as fighting organized crime (Prof. Stuart Jamieson is a member of the policy board of the provincial crime-fighting Joint Forces Operation) to children's dental care (Dr. Robert Evans is chairman of the Children's Dental Health Research Project, which is to design a publicly financed dental care program for B.C. children.)

Hardly a month goes by without an announcement from Victoria of the appointment of a UBC faculty member to an important new inquiry. The latest, this fall, was the appointment of Prof. Gideon Rosenbluth, of the Department of Economics, as a one-man board of inquiry into the real estate industry.

And certainly, if government action to date is any

UBC'S ACTION ACADEMICS

UBC faculty members in a variety of fields are serving on provincial government commissions and task forces designed either to frame legislation or carry out studies leading to government action. UBC economist Prof. Peter Pearse, left, is advising the government on legislation affecting the forest industry, while Prof. Arthur Thompson is being asked to leave as chairman of the B.C. Energy Commission. The action academics interviewed for the article beginning below agree that this kind of activity is valuable to the community at large, to themselves as teachers and researchers, and to students.

"The University of British Columbia, like our forest industry, our fertile farmlands and our oceans teeming with fish, is a very rich resource which is being tapped for the future development of the province." — UBC's president-designate, Dr. Douglas Kenny, in a recent speech to Kamloops alumni.

indication, no session of the B.C. Legislature will take place without the introduction of important new legislation based on reports and recommendations of inquiry groups headed by UBC faculty members.

Two examples from the last session of the provincial Legislature are far-reaching new legislation on the B.C. forest industry based on reports of the Task Force on Forestry headed by Prof. Peter Pearse, of UBC's Economics department, and the new *Universities Act*. The latter legislation was based on the report of the Committee on University Governance, which had as key members UBC's former deputy president, Prof. William Armstrong, now chairman of the Universities Council, and Prof. Walter Young, former head of UBC's Political Science department,

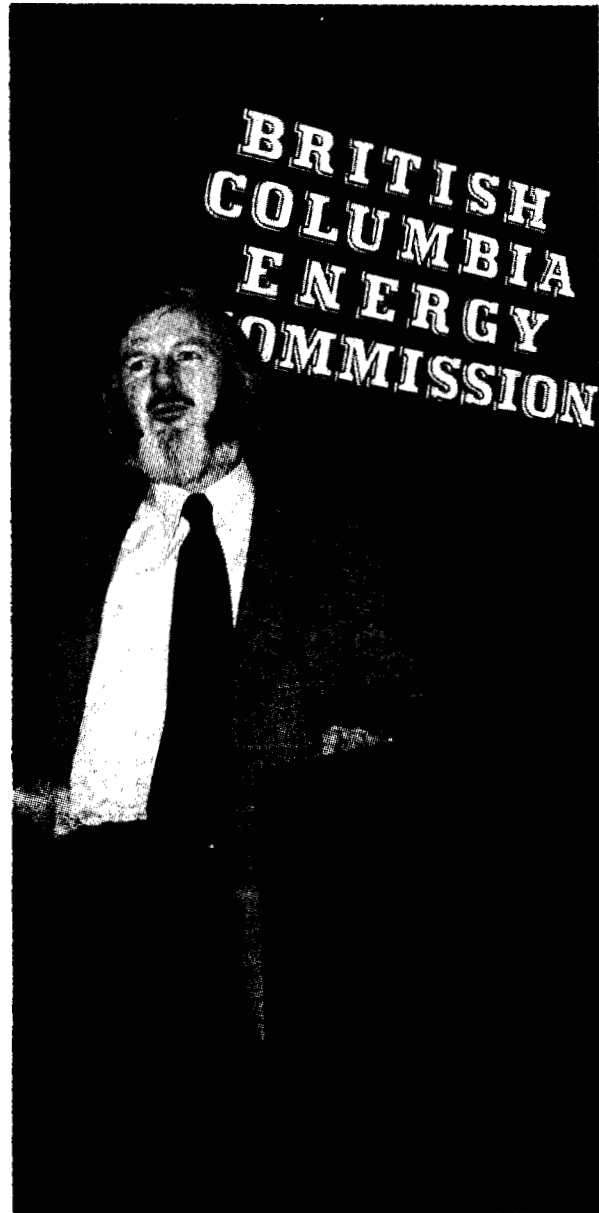
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who now holds a similar post at the University of Victoria.

No count is kept of the number of UBC faculty members who have been called on by both the provincial and federal governments. Any such count would be incomplete because, apart from boards and commissions that receive wide publicity because of the nature of their work, many faculty members work quietly behind the scenes utilizing their research and academic skills to advise governments. In many instances, the contribution of UBC faculty members is known only to a few colleagues and to the government departments involved.

UBC Reports sought out a representative cross-section of faculty members working on provincial government projects to ascertain their views on the role of the university professor in undertaking such inquiries and producing reports which, if implemented in the form of legislation, can have a profound effect on the future growth and well-being of this province.

All viewed their studies primarily as public-service endeavors and a welcome opportunity to make some practical use of the expertise developed over the years as a result of research and study. They stressed that the university professor is one of the few people to whom the government can turn for an objective view of a subject, based on research and teaching interests.

Unlike larger countries, such as the United States, Canada doesn't have the private research institutes and agencies to which governments can turn for help, says Prof. Peter Pearse, head of the Task Force on Forestry.

"I believe that there is a certain responsibility on

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BREAKING DOWN THE BARRIERS

By **JIM BANHAM**
Editor, UBC Reports

While UBC faculty members are going off-campus in increasing numbers to make an impact on the community, one Vancouver lawyer has returned to the campus for a year as a teacher in an attempt to bridge the gap between the legal profession and UBC's Faculty of Law.

Hamish Cameron, who has been practising law with one of Vancouver's top legal firms since graduating from UBC in 1956, is UBC's first full-time "lawyer-in-residence" as the result of a grant from the Law Foundation of B.C.

"As I see it," he says, "I have two main functions in undertaking a year of teaching in the Law Faculty at UBC.

"The first is to bring some ideas about legal education from downtown and expose them in a forceful way to campus law teachers. The other is to tell the legal profession downtown that the jobs we thought scholars couldn't do can be done if we blend the work of the scholar with the legal practitioner."

One of the major problems facing legal education today, Mr. Cameron says, is developing a method of communicating to students the knowledge that practitioners use on a day-to-day basis. "There's simply a lot of knowledge that we can't get into student's heads in any organized way," he says.

One possibility envisaged by Mr. Cameron for breaking down this barrier would be to take a leaf out of the book used by the medical profession for training doctors.

"The kind of parallel I see with medical education would be to attempt to develop for law students an experience of the same kind that medical students get in a teaching and research hospital, where fledgling doctors are exposed to medical educators and practitioners.

"In a teaching and research hospital the professors know that in any one year the medical student will be exposed to a wide range of conditions and diseases. The student also has the experience of watching theorists and practitioners dealing with medical problems. So we have

to find some way of duplicating the conditions of the teaching hospital in medicine for law students."

Mr. Cameron is pleased with the positive response to this idea that he finds in UBC's Law Faculty.

"Understandably," he says, "the members of the faculty here feel they have scholarly interests to protect. They don't want to lose their academic independence and their connection with the University.

"Part of the purpose in my being here for a year is to try to convince the academics that downtown practitioners are not attempting to threaten those interests."

When Mr. Cameron returns to full-time law practice next May he hopes to be able to persuade downtown lawyers that they can help students by blending the knowledge and expertise of the practitioner with that of UBC law professors.

LECTURES VALUABLE

"Four months ago, before I joined the teaching staff," he says, "if anyone had told me that a professor of law without a good deal of experience as a practitioner could teach a course in negotiation — the art of resolving conflicts before they get to court or putting together business deals through trade-offs — I would have said they had taken leave of their senses.

"I would also have said that I couldn't imagine the best downtown negotiator being able to teach such a course adequately either, because he doesn't have a chance to reflect on what it is he does to create a successful negotiating situation.

"At UBC I've been sitting in on a course on negotiation taught by a professor without extensive experience as a practitioner, and I'm astounded at the value students are getting through simulations of highly theoretical discussions."

Mr. Cameron sees the downtown practitioner participating in courses such as negotiation in order to build a sense of credibility in the minds of students toward their non-practicing professors.

"There's a tendency on the part of students to say of their UBC professors, 'He's never practised, I don't believe him.' It's the old story of the students believing

COMMUNITY SERVICE

Continued from Page One

the part of all academics to involve themselves in public affairs, particularly if the government feels that it can make use of their special area of expertise."

Prof. Pearse says that while he finds it a challenging and stimulating experience to work with the government in developing policy, the experience works both ways. He believes it will make him a much better teacher when he returns to the classroom in January.

"We are always trying, in economics, to interpret and analyze the implications of public policy. It has been a very enlightening experience for me to be involved in the actual formulation of policy," he says.

"Students are always concerned about relating the things that we are talking about at the University to the so-called 'real' world. I think that in future I will be able to discuss issues of forest-management policy with a much better understanding of the reasons behind the creation of that policy."

Prof. Pearse, who has been a critic of government policies in the past, adds that the fact that a faculty member might play an important role in helping formulate government policy does not mean that he cannot keep a critical eye on what is going on.

"A faculty member might be constrained in making comments when he is part of a policy-making group, but I don't think he should be under any constraints once he gets back in his academic role."

NOT ACCEPTED

One UBC faculty member who did not hesitate to express his views when recommendations that he had made in a report were not accepted by the provincial government was Prof. John Cragg, of UBC's Department of Economics.

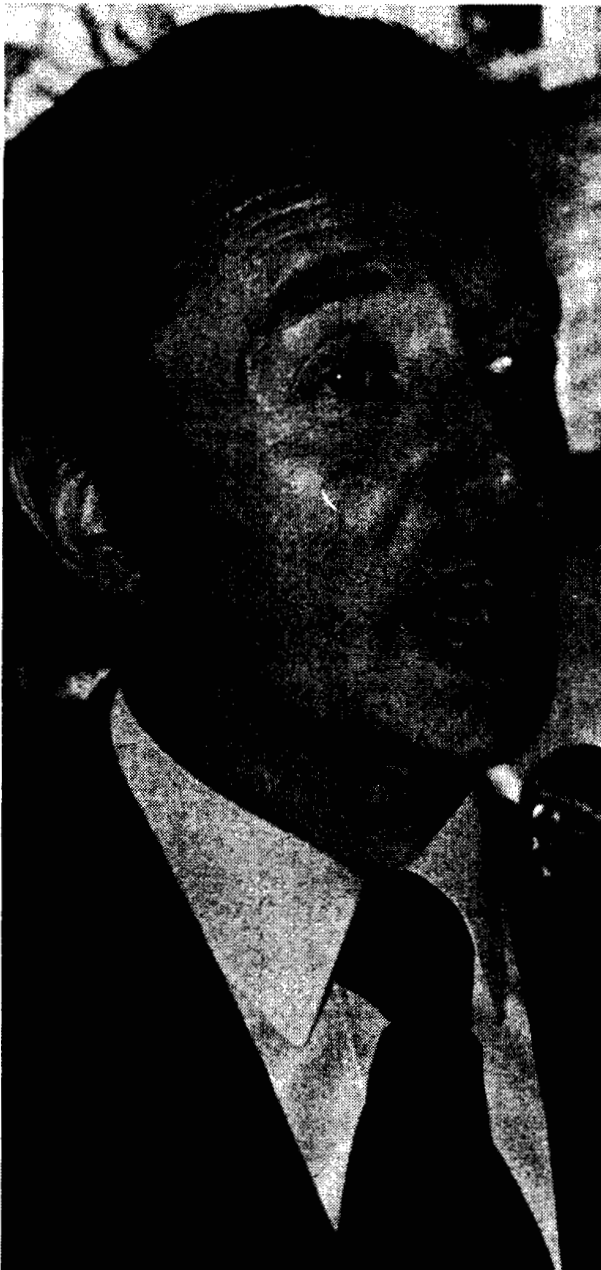
Commissioned to prepare a report on rental policies, Prof. Cragg came up with a recommendation that rents should be increased 21.2 per cent if landlords were to keep pace with inflation. The provincial government decided to peg the increase at 10.6 per cent instead.

While Prof. Cragg says he was disappointed with the government's decision, "it wasn't my job to give the government the type of advice that they wanted to hear. I based my advice on the facts that were before me."

He was also quoted in the press as saying that if the provincial government pursues its present policies on

rent control "there is a very real danger that existing rental accommodation will deteriorate."

Prof. Cragg says that he too believes that there is a community-service aspect to undertaking assignments for government agencies. "For example, if this had been an assignment from private industry I would not have



DR. ERIC BROOM



PROF. JOHN CRAGG

that what they hear in the classroom isn't relevant to the real world out there.

"If, however, I was in the classroom with the non-practising professor and was able to say to the students, 'Listen to this man, he knows what he's talking about,' and was able to back up his lecture with examples based on my own experience as a practitioner, it would result in credibility in the mind of the students for the professor."

"So I plan to tell the members of the downtown bar that there are a lot of good things happening at the University that could be improved if practitioners take part in them."

Mr. Cameron realizes, however, that University professors, "for legitimate and scholarly reasons," worry about standards and the intellectual quality of the Faculty's offerings. "They're afraid that if they turn the job over to practitioners entirely that quality will slip, and practising lawyers harbor the fear that if training is left entirely to faculty members, students won't get the practical training."

Mr. Cameron hopes that his presence in the Faculty of Law for a year will tend to overcome prejudices on both sides.

Finally, he says, there are benefits for him personally in being a lawyer in residence for a year.

"I'm exposed to a number of very bright professors who know about the latest developments in theoretical thinking about the law and that's valuable to me as a person who'll be returning to practice soon. I'm also learning how to be a better teacher. When I return to practice I'll be in better shape physically and mentally, and I'll also have some new tools to use in my profession."

Not that Mr. Cameron is a newcomer to legal education. During his 18 years as a practising lawyer he's taught his peers through courses sponsored by the B.C. Law Society or the Continuing Legal Education Division of UBC's Centre for Continuing Education.

As UBC's lawyer-in-residence, Mr. Cameron teaches courses in the drafting of legal statutes and private agreements and corporate planning. In addition, he meets a group of nine first-year law students regularly

for a compulsory, non-credit course in legal writing.

Mr. Cameron finds that the UBC campus in general and law students in particular are vastly changed from the day when he was a student.

"Students today have a problem coping with the sheer physical size of UBC and many law students tend to be isolated from the mainstream of campus life because of the heavy academic load. In addition, the students themselves are of a different order from my days at law school in the 1950s. Careful pre-selection means that there are fewer marginal students, and the students that get in stay in."

Another striking aspect of 1974 UBC life for Mr. Cameron is what he describes as "the whole student democracy thing," which was non-existent in the 1950s.

RESPOND TO DEMAND

"I'm quite sure contemporary students and professors who have grown up with it don't realize the enormous administrative burdens that are imposed on faculty members today in responding to the demand to 'let justice be seen to be done as well as done'," he says.

"I couldn't believe it recently when I saw exam timetables being distributed, first for faculty comment and then for student comment, and then a committee meeting being arranged to settle tiny inequities that would have been removed in my day in a fraction of the time."

"There's hours and hours of effort involved in this business of the institutionalization of fairness. It imposes on already-busy faculty members a terrible burden of time and effort," he says.

Mr. Cameron plans to continue his connection with UBC's Law Faculty even after he returns to his practice. "I really don't feel I can spend more than a year away from practice because I'd get out of touch with downtown trends."

"I'm also hoping that I can persuade some practising lawyer to take a year off, as I have, to teach at UBC and that the Law Foundation will continue their financial support of the lawyer-in-residence program."



MR. HAMISH CAMERON

nothing theoretical about the rent study. You are dealing with real people facing real problems."

A colleague of Prof. Cragg's, Dr. Robert G. Evans, is facing up to problems of another kind. A health economist, he is the chairman of an 11-member task force designing a publicly financed dental care program for B.C. children.



DR. ROBERT EVANS

Dr. Evans, who is dividing his time between the University and the task force, says he believes that university professors are in an ideal position to undertake such assignments.

"There are just not enough people in the civil service to do all of the things that the government wants to do just now, and competent people are just not available to pack up and go to Victoria at short notice to work."

SPECIALIST POOL

"The University has a pool of specialists who can be brought in to work on problems on a relatively short-term basis. However, there aren't that many University people available either, because many of the people who are really in demand on the campus are booked up two or three years in advance; they just don't have the time to undertake assignments at short notice."

Dr. Evans, who teaches a course on the economics of health care, says his involvement with the task force works both ways — the government gets the benefit of his years of research in the field, which includes a Ph.D. thesis at Harvard University on hospital cost reimbursement, and he gets access to information and insights into the operation of the health-care industry which will prove invaluable to him in his teaching and research at the University.

"The government has the biggest supply of data on the health-care industry and it is interested in the same kinds of issues that I am interested in as an economist studying the field," he says.

Dr. Eric Broom, an associate professor of physical education at UBC, was commissioned early in 1973 to conduct a study and an evaluation of all available services for recreation, physical fitness, and amateur sports, and to report and recommend to the government policies and procedures designed to provide services essential for the enrichment of leisure to all citizens of British Columbia. The report, "Leisure Services in British Columbia," was tabled in the provincial Legislature early in 1974.

The report recommended the formation of a new government agency, called the Department of Leisure Services, which would offer a wide range of advisory services and help administer grants to municipalities and other agencies through three funds for cultural, physical fitness and community facilities.

"Working on this report gave me an opportunity to get around the province and see what is going on in the whole field of recreation, something that would have been impossible for me to do otherwise," he says.

"It also gave me access to information and opened many doors that would otherwise be closed if I was

undertaking more research work in this particular area. So it was an extremely valuable experience for me as a teacher and, I hope, will be of benefit to my students because of the insights that I have gained into the whole field of recreation."

Prof. Andrew R. Thompson, of UBC's Faculty of Law, has taken leave of absence from the University to head up the B.C. Energy Commission, a body created in May, 1973, to oversee the management and control of provincial energy resources.

Prof. Thompson commutes twice a week, at noon-hour, from his country office on the 21st floor of the Board of Trade Tower in downtown Vancouver to the campus to teach a class of first-year students in property law. "I didn't have to do this, of course, but I enjoy teaching very much and I particularly like teaching first-year students," he says.

Prof. Thompson, a specialist in the petroleum industry, says that there is "all kinds of talent and expertise capable of playing a critical role in terms of trying to solve society's problems within the ranks of University faculty members. This is an important part of what the University stands for."

"I know that within the Faculty of Law we have had a number of outspoken individuals over the years who have been studying and criticizing what government and industry have been doing. At a certain point, it seems, their message gets through, and government calls on them for help by saying 'Okay, you have been talking about this for a long time, now come and see if you can do something about it.'"

Prof. Thompson says he has always felt that among all of the other roles played by the University as a teaching and research institution, its faculty members should be available as a "sort of public-interest consulting group."

NEW DIRECTIONS

"Very often the University professor is called on when the politicians sense that new directions must be pursued in a particular area. Persons within the industry, or whatever field is involved, cannot do this because often they are part of the problem."

Prof. Thompson says that when he does return to UBC on a full-time basis the experiences as head of the Commission will be invaluable to him as a teacher. "You begin to appreciate, for example, the enormous complications that are involved when you start to apply policy — in effect, change the way that things have been done. For a start, it makes you more modest in your conception of what can or cannot be done — and more realistic too."

Metallurgy Research Group Achieves Breakthrough in 'Moly' Production

By PETER THOMPSON
UBC Reports Staff Writer

A technological breakthrough at UBC should give the province an economic edge in the production of a glamor metal used in making high-strength steel.

The metal is molybdenum, or "moly," in high demand in our post-industrial society. Molybdenum steel is used extensively in the automotive, space, and petroleum-refining industries.

More than 90 per cent of Canada's moly production comes from B.C. and most of it leaves the province in a relatively unprocessed form. The UBC research will make it possible for the metal to be processed here under a new method that is much less expensive than the conventional method used around the world.

"We were looking for something to work on that would be of direct benefit to the province," said Dr. J. Keith Brimacombe, associate professor in UBC's Department of Metallurgy. Dr. Brimacombe and Dr. A. Paul Watkinson, assistant professor in the Department of Chemical Engineering, teamed up as

the supervisors of Dr. Igor Wilkomirsky, who took on the problem for his Ph.D. degree. After three years of work, the group has successfully developed the new processing method.

"The first step in the metallurgical processing of moly is to concentrate the ore," Dr. Watkinson said. "About 65 per cent of the 30.4 million pounds of molybdenum metal shipped from B.C. last year went as concentrate.

"The other 35 per cent was exported after it had passed through the next processing step. The concentrate — mostly molybdenum combined with sulphur — is burnt to produce molybdenum trioxide, which can be used without further refinement to make some types of molybdenum steel.

"This is called roasting the concentrate to remove the sulphur."

Until the UBC research, no one could find a way of roasting moly concentrate using the modern "fluid-bed" method that has been successfully used to process other metals.

Dr. Wilkomirsky said that in fluid-bed roasting,

finely powdered concentrate and air are fed into a cylindrical vessel. The mixture of burning concentrate and air bubbles behaves much like a boiling liquid and is referred to as a fluid bed.

He said that two major problems had foiled previous attempts to adapt fluid-bed roasting to moly.

"The first is that the particles of concentrate tend to come together and adhere to the side of the cylinder," Dr. Wilkomirsky said. "This could lead to the moly forming a solid mass and collapsing to the bottom of the cylinder.

"Another problem is heat. Roasting moly in a fluid bed produces a tremendous amount of heat."

As a result of these and other barriers, moly is roasted by an older multiple-hearth method, Dr. Brimacombe said. In this process, moly is continuously stirred in a vertical stack of hearths and falls from one hearth to another through ports in the hearths. Burning gas drives off the sulphur, producing molybdenum trioxide.

CONCENTRATE LOST

"Yet another obstacle is that the fine moly concentrate — the particles are smaller than talcum powder — can easily be blown out of the fluid bed before they are oxidized and their sulphur content removed," Dr. Brimacombe said.

Dr. Wilkomirsky said the obstacles were overcome by designing and building a continuous fluid-bed plant where heat and the moly particles blown out of the fluid bed are collected and re-introduced into the bottom of the cylinder.

Continuous recycling of the concentrate reduces the possibility of the particles adhering together into a solid mass, ensures that particles blown out are roasted, and uses excess heat to cut down on the amount of fuel needed, Dr. Wilkomirsky said.

He said the system is far more efficient than the multiple-hearth method now in use.

"An advantage of our fluid-bed process is that the sulphur dioxide gas produced by burning the concentrate can easily and profitably be treated to produce sulphuric acid as a by-product.

"In the multiple-hearth method, the sulphur dioxide gas is so dilute that it is very expensive to treat and is usually released directly into the atmosphere. The amount of sulphur dioxide released when roasting moly isn't that great. Much less of the gas is given off than in roasting concentrates of zinc, copper or nickel sulphides."

Dr. Watkinson said that a fluid-bed roasting plant for moly would cost about 60 per cent less to build, 40 per cent less to operate, and would consume a fraction of the fuel compared with a conventional multiple-hearth plant.

Apart from the production savings, roasting moly adds 20 cents per pound to its value.

"The 30.4 million pounds of molybdenum metal exported from B.C. last year was worth about \$52 million," Dr. Watkinson said. "If the moly that went out as concentrate were roasted in B.C., another \$7 million or so would be added to its value."

The group of researchers have applied for patents in the United States and are in the process of doing so in Canada. Their research was supported by the National Research Council and UBC.

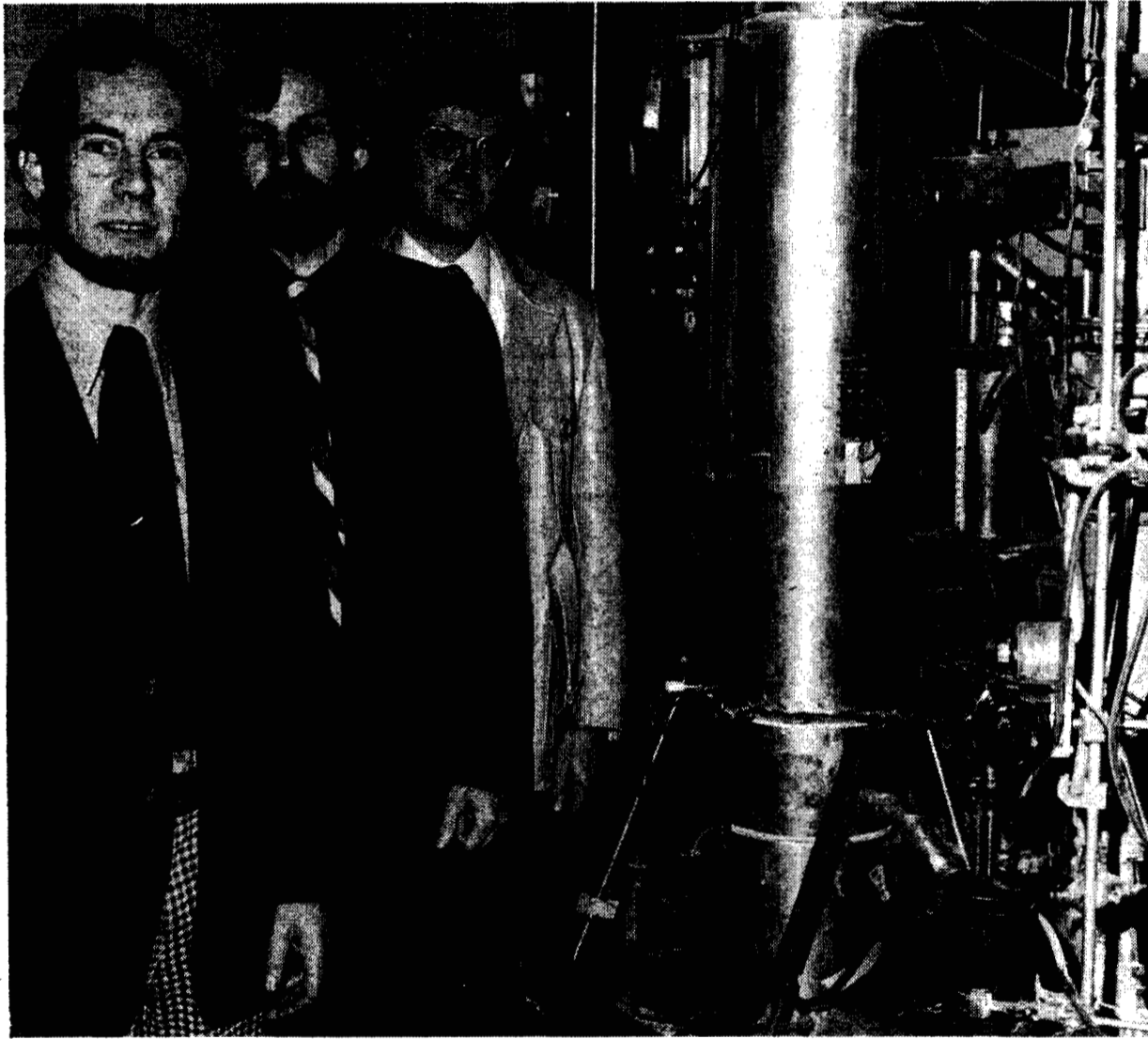
FUNDS SOUGHT

They have applied to the provincial government for funds to build a small pilot plant, the next step necessary before a commercial plant can be built, but so far have been unsuccessful in obtaining funds.

"We aren't looking for a grant. We'd even be interested in the possibility of setting up a small government-owned company so that the people of B.C. would get the benefit if the process went into operation," said Dr. Brimacombe.

"We aren't going to them (the provincial government) with some hare-brained scheme that we dreamed of one night after eating pickles and ice cream. We have test data resulting from very careful and thorough experimentation for the development of a profitable process.

"The next step isn't speculative in the sense of 'Will the process work?' The next step is to determine on what scale the plant should be built."



UBC research group which has developed a new method for producing molybdenum, a high-demand metal used in making steel, is shown standing beside complex apparatus used to test new process. Left to right are Dr. Igor Wilkomirsky, who took on development of the new process for his doctorate in metallurgy; Dr. A. Paul Watkinson, of the Department of Chemical Engineering; and Dr. J. Keith Brimacombe, of the Metallurgy department. Group has applied to the provincial government for funds to build a small pilot plant for producing molybdenum. Picture by Jim Banham.

PAVILION PLANNED FOR IWY

Meeting in UBC's Frederic Lasserre Building to discuss plans for projected women's pavilion are four of the ten women taking an active part in the International Women's Year project. Left to right are Charlotte Murray, of the architectural firm of Rhone and Iredale; Barbara Dalrymple, of Thompson, Berwick, Pratt; Patricia French, of Arthur Erickson; and Hanna Skapski, a registered architect with the Pacific Division of the federal Department of Public Works. Picture by Jim Banham.



By LOIS CRAWLEY UBC Reports Staff Writer

A visionary concept to celebrate International Women's Year is taking shape on the UBC campus. An ad hoc planning committee, headed by UBC's Dean of Women, Dr. E. Margaret Fulton, has conceived the idea of creating an environment for women — a pavilion designed by and for women — in which a colorful spectrum of events will take place during IWY in 1975.

One group of women has surfaced as enthusiastic Women's Year participants — a committee of women architects.

When representatives of Dean Fulton's committee presented the idea of creating an environment for women to Catherine Wisnicki, assistant professor of the School of Architecture, she immediately became interested.

Within a few days, Mrs. Wisnicki had gathered together several women architects to discuss the feasibility of their taking on the design and building of the pavilion as their contribution to International Women's Year. They enthusiastically agreed to the challenge.

The architects' committee under Mrs. Wisnicki's guidance is composed of women graduates from UBC and other universities, most of whom are now working professionally in well-known architectural firms in Vancouver.

Because they are women who like to get on with the job, they quickly devised a modus operandi and allocated areas of responsibility within a team framework.

DESIGN GROUP

Charlotte Murray, an experienced architect with the Vancouver firm of Rhone and Iredale, was asked to co-ordinate the design group. Her role is to establish priorities and see that communications between team members are effective.

The other members of the committee, Barbara Dalrymple of Thompson, Berwick, Pratt and Partners; Patricia French of Arthur Erickson; Hanna Skapski, a registered architect now with the federal Department of Public Works, Pacific Division; and Anna Buchan, free-lance designer, will each take an important part of the design problem, work it out with dispatch, then feed it back into the group. Only through this close co-operation with one another will the women be able to realize their target date for a pavilion on campus — May of 1975.

In late November, three more extremely capable women volunteered to help out. Edith Jane Schwalm, a distinguished member of McNab, Barkley, Logan and Young, is keenly interested in the project and will serve as a resource and liaison person. Jane Best, who was a top student in the School of Architecture's second graduating class and who worked for several years with the planning department of the Municipality of Burnaby, will be liaison between the group and UBC's Physical Plant department. And Afaf Elsmay, a graduate architect from the University of Cairo now doing her master's degree at UBC, agreed to take on the supervision of contract documents.

STUDENTS TO HELP

UBC students in the School of Architecture are as eager to get to work on the proposed pavilion as the professionals. Merrie Bakker has offered to seek out more women architect participants throughout B.C., and Roberta Fralick will co-ordinate student participation.

The well-known Vancouver landscaper, Cornelia Oberlander, has volunteered to lend her expertise and it is anticipated that many other women in the profession will wish to contribute time and energy.

Adequate funding is, of course, the vital factor which will determine whether the concept and design ever becomes a building.

Dean Fulton, who has been actively seeking funds from the federal and provincial governments and from the University, says: "The idea for a women's pavilion has been received with great interest — enthusiasm even. It strikes a pleasant, upbeat note that a plan which elicits such joy from women should also be considered exciting by men. Because the pavilion is so functional, not only for IWY but for multiple future uses, I am very hopeful about funding."

Imaginative ideas for design are surfacing in the on going meetings. The women see the project as an opportunity to create a symbol of women's capabilities and co-operation.

Mrs. Wisnicki, who will continue to lead the group as a consultant and major resource person, sees the proposed pavilion as "a visible demonstration of what women can achieve within the architectural profession and an encouragement to young women to enter the field to realize the potential of both their creative and practical talents."

An integral part of the design of the pavilion will be flexibility to accommodate the range of activities during IWY. The interior space will probably be divisible so that it can function either as a largish hall for lectures, films and theatrical productions, or as small meeting areas for workshops, seminars, etc.

There should be projectionist space, a lobby, cloakrooms, washrooms and all the facilities to make it totally functional for any event. Special design attention will probably be paid to display areas that will enhance the exhibitions of painting and sculpture.

The pavilion promises to be a beautiful place to be in. And be in it women, from both on and off campus, surely will. Not only for lectures by distinguished international and Canadian women, but for workshops concerning the changing roles of women in society, exhibitions of painting and sculpture, musical events, drama, poetry readings and films.

Some of the events will be sponsored directly through the Dean of Women's office — lectures, for instance, by outstanding women such as anthropologist Margaret Mead and others. Both the Vancouver Institute and the Cecil and Ida Green lectureships have offered to help finance such talks. But Dean Fulton has expressed the need for active participation from students, staff and faculty to bring about the year's fullest expression of women's aspirations and achievements.

LEADERSHIP ROLE

Dean Fulton said: "I very much hope that faculty women will take a leadership role in co-ordinating seminars and lectures pertinent to their disciplines. Women in Law, Medicine, Education, Sociology — in every Faculty in which women are enrolled — will have a great deal to contribute, not only in revealing the achievements of women in research and practice but also in stating the problems and the opportunities experienced by women entering the professions."

The Dean went on to say: "Students and staff should take this excellent opportunity of arranging constructive projects and workshops that will reflect their ideas about women in society."

International Women's Year on the UBC campus is off to a good start. When the input from campus women begins, it should be possible for them to make a continuing contribution to the United Nations goal of "Equality, Development and Peace" between men and women throughout the world.

RECORD 43 NOMINATED FOR AWARD

By GEORGE INGLIS

What constitutes a master teacher of university undergraduates?

The question may sound like a loaded one, but four teachers on the University of B.C. campus — all of them holders of the annual Master Teacher Award — came up with strikingly similar answers, considering the wide differences in their teaching disciplines.

Their views are that a Master Teacher must be able to inspire and motivate students, help instill a thirst for knowledge, and make its acquisition an enjoyable experience. If the Master Teacher can discover hidden potential and release it, his reward is to be found in the sudden awakening of his student and his metamorphosis into a scholar.

The four — Prof. Dennis Chitty of Zoology, Prof. Sam Black of Education, Dr. John Hulcoop of English, and Dr. Floyd St. Clair of French — each won the distinction of being named for the award, and the \$2,500 cash prize that goes with it, because a selection committee rated them as having the qualities of a Master Teacher.

"You cannot generalize about what makes a good teacher," Prof. Chitty said. "He must have a burning desire to help young people get educated. He must have an intense interest in students, and a high degree of scholarship on his own."

Combining research and teaching can be a burden to the aspiring young teacher, he said, and result in his seeing too little of his students. Having one's door always open plays havoc with one's time for writing and research, a distraction that younger faculty members can seldom afford.

Prof. Chitty spent 26 years in "the ivory tower isolation" of research at Oxford University before returning to Canada 13 years ago. "I am grateful to UBC for having let me do the kind of teaching I wanted to do," he said, "but I find conditions sadly different from those I knew at Toronto in the 1930s."

TOO MANY LECTURES

Prof. Chitty deprecates the assembly-line techniques inevitable in a large university like UBC, the over-indulgence in lectures as a means of education, the fragmentation of students' time, and the never-ending anxiety over marks, which seems to him to downgrade the quality of education. "I would rather think that students are here because they like learning," he said.

He also finds it astonishing that few people have even heard of the MacPherson Report, put out by the University of Toronto in 1967. This report recommends giving students no more than one lecture per course per week, and agrees with a British report (to which Lord Wolfenden wrote the foreword) criticizing the modern fault of giving students too little time to think for themselves.

Prof. Black, an art teacher for more than 16 years at UBC, heartily endorses the personal element in teaching.

"You have to have faith, consideration and trust in the student, and you must be constantly aiming toward that point where the student is able to walk on his own."

He agrees with Prof. Chitty that exams are necessary, but only to determine a student's progress. "Many exams are simply diabolical tests of courage, not an assessment of intellectual growth. There are also many other ways than the exam route to assess student growth and teacher effectiveness.

KNOW HIS SUBJECT

"The teacher has to keep in touch with the contemporary world, prepare his subject well, anticipate questions, and adjust to situations as they occur," Prof. Black said. To broaden the resources available to his student teachers, Prof. Black is constantly on the lookout for new materials and techniques for use in the classroom. Before he turns his students loose on a project involving new materials, he makes a point of experimenting and working with them himself to determine their potential.

"Unfortunately," Prof. Black said, "if I do my job well, I work my way right out of a job, but there is always a new crop coming up."

Much of a teacher's energy in today's university has to be concentrated on "a culture gap, not a generation gap," said Dr. Hulcoop, who teaches English.

Dr. Hulcoop said he is seriously concerned with "the McLuhan-like cobweb of immediacy and spontaneity in which today's students are enmeshed.

"In a utopian world of education, the students would be here to extend the boundaries of their knowledge through reading and scholarly research. But actually, utopias don't exist."

Rather, Dr. Hulcoop said, "I find myself confronted with what looks like a deterioration of standards in basic reading, writing and comprehension by high school graduates."

This means a whole new approach toward university teaching, "a whole new and different kind of skill is required to teach in the '70s from the days when students possessed basic skills, facts and information in given disciplines."

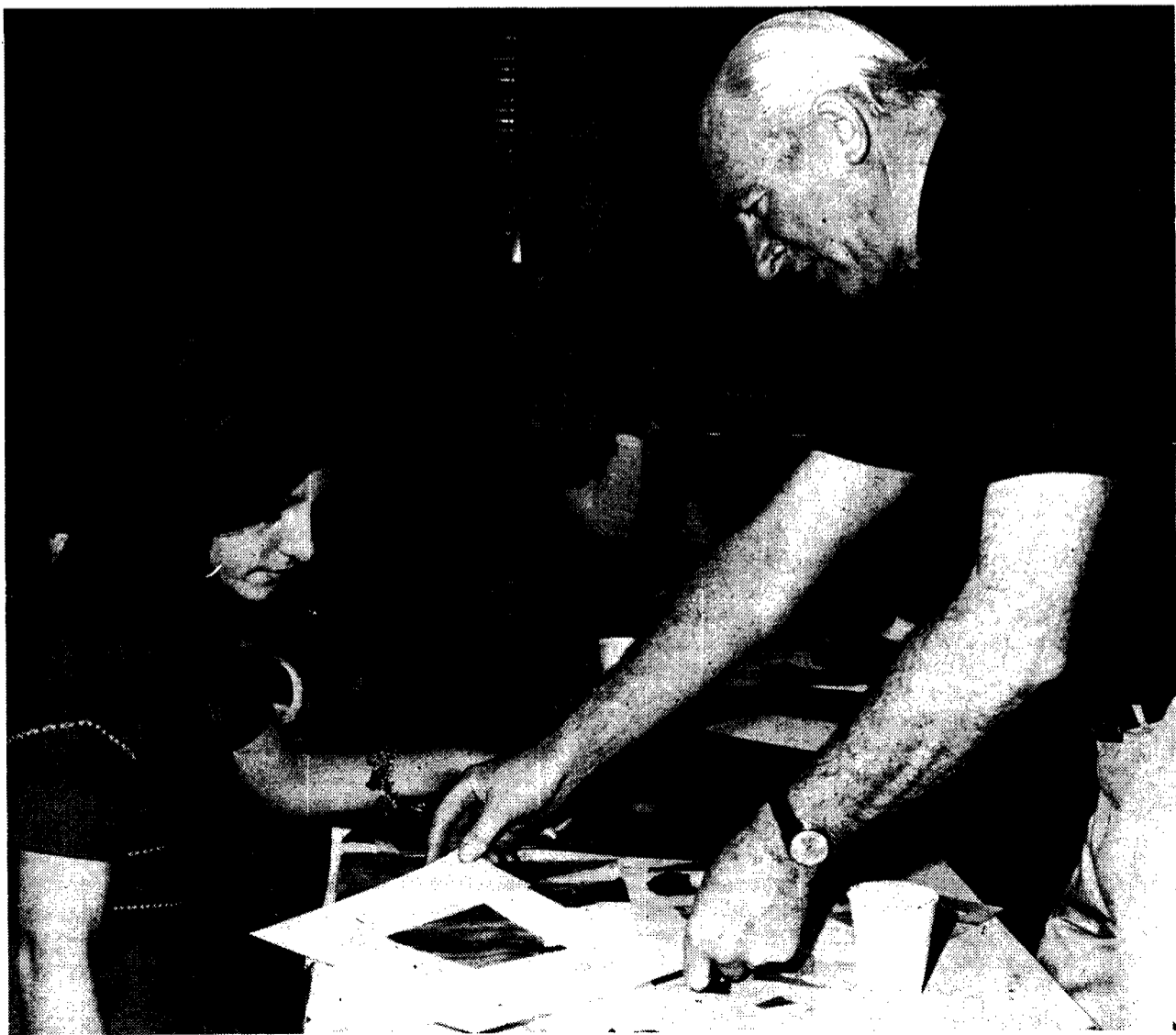
To achieve these new skills, a teacher of university undergraduates should be extremely adaptable, he said, dedicated to his job, and able to contend with the "now-complex" and the obsessive "profession-orientation" of today's students.

"Education has become the handmaiden to money-making, and the good teacher is the person who can induce in his students the desire to learn in spite of this fact."

"There is no one way to be a good teacher," said Dr. St. Clair, a teacher of French literature, now in his 12th year at UBC.

"One of the things I had to learn first was to be myself," he said. "I had tried to pattern myself after a brilliant professor I had as an undergraduate, and I

UBC's Master Teachers are noted for their rapport with students. At far right Prof. Dennis Chitty, of the Department of Zoology, chats with a student during a coffee break at a weekly seminar. At near right, Prof. Sam Black, of the Faculty of Education, confers with one of his students during a weekly studio workshop session. Pictures by Jim Banham.



found it just didn't work out."

He said a student frequently is like an unplumbed well. "I think you must solicit and develop the latent skills in students. Many know more than they realize themselves and once they are encouraged have interesting things to contribute in a class.

"I like to interest myself in my students, try to project in them an interest in learning, and understand their problems," said Dr. St. Clair, who added a common denominator expressed by all four Master Teachers:

"I like what I am doing."

"There are no hidden criteria for the Master Teacher Award," was the comment of Dr. Ruth L. White, chairman of the selection committee for the second year and a member of the French department.

"Everyone who is nominated becomes a candidate provided he or she accepts and is qualified," Dr. White said. Dr. White said she felt the award, which was instituted in 1969 by Dr. Walter Koerner in honor of his brother, the late Dr. Leon Koerner, has been successful in "discovering" outstanding teachers of undergraduates at UBC.

"Those of us who serve on the committee feel it has been a privilege to see teaching of such high quality and to realize there is so much of it at UBC," she said.

VISIT CLASSROOMS

This year, Dr. White and her selection committee are considering a record 43 nominees for the 1974-75 awards. Every facet of a nominee's teaching ability is weighed and committee members visit classrooms to see nominees in action.

"We are delighted with the way the award has worked out," said Dr. Robert M. Clark, director of the Office of Academic Planning and a member of the selection board. "When it was first proposed by Dr. Koerner, there was considerable doubt that a committee could agree on criteria for outstanding teaching."

He said the nine UBC criteria, patterned after similar criteria at the Universities of Toronto and Toledo, Ohio, "have been widely accepted on campus, both by students and faculty."

Slightly re-worded last year, but basically unchanged since their inception, the criteria are:

- Having a comprehensive knowledge of the subject;
- Being habitually well-prepared for class;
- Having enthusiasm for the subject, and arousing interest in it among students;
- Establishing good rapport with students;
- Encouraging student participation in class;
- Setting a high standard and motivating students to reach it themselves;
- Communicating effectively at a level appropriate to the student's background;
- In evaluation, laying stress on an understanding of the subject rather than on simple memorization; and
- Being accessible to students outside class hours.

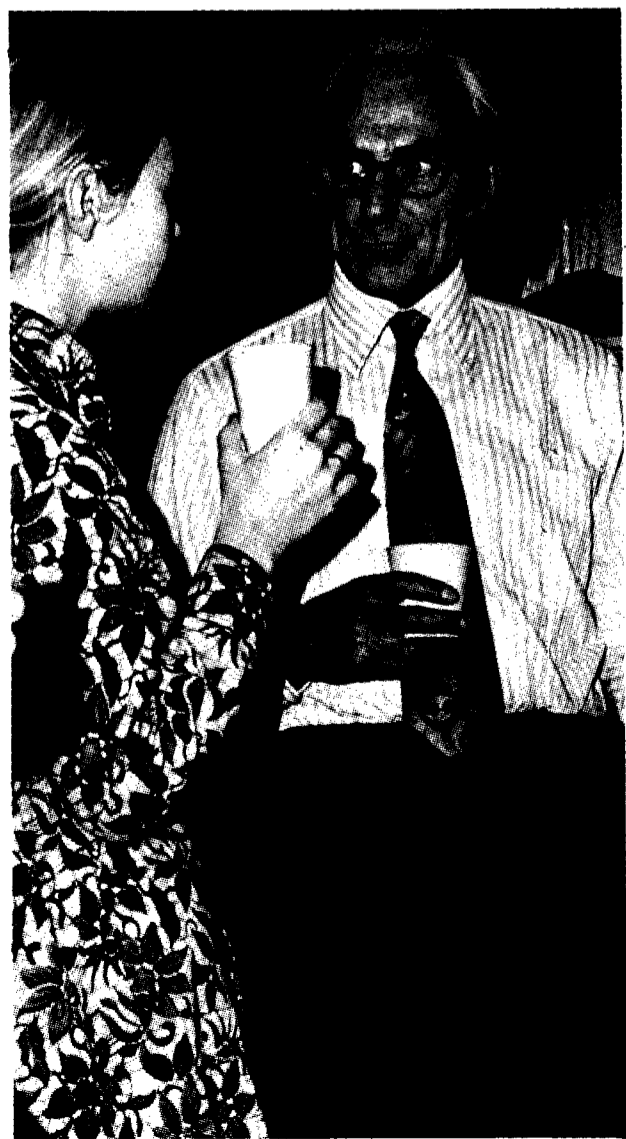


Photo by Jim Banham

UBC students who have won outstanding awards recently are, left to right, John Perry, winner of the 1975 Rhodes Scholarship; Duncan Klett, winner of the Sherwood Lett Memorial Scholarship; and Ted Davies, co-winner of the Harry Logan Memorial Scholarship.

Rhodes Scholar Named

B.C.'s Rhodes Scholar for 1975 is John Perry, a 21-year-old honors history student at the University of B.C.

John, who will enrol next September for two or three years of study at Oxford University in England, is the son of Prof. Thomas Perry, of UBC's Department of Pharmacology, who was himself a Rhodes Scholar from 1937 to 1939 from Harvard University.

The winner of the prestigious award told *UBC Reports* that he will study either law or English history at Oxford University.

Apart from his academic work at UBC, John is an enthusiastic alpine hiker and cross-country skier.

In the summers of 1973 and 1974 John was employed by the health department of the City of Vancouver on studies related to cigarette smoking.

In 1973 his research on the potential ill-effects of second-hand smoke on the health of non-smokers led to the publication of an article in the *B.C. Medical Journal*. In 1974 he was employed by the city health department in an anti-smoking education program in Vancouver secondary schools.

Duncan Klett, a fourth-year electrical engineering student, has been named the 1974-75 winner of the \$1,500 Sherwood Lett Memorial Scholarship.

The annual award is made to a student who reflects the high standards of scholastic achievement, sportsmanship and ability to serve and lead others which characterized Mr. Lett, a former Chancellor of

UBC who was Chief Justice of B.C. at the time of his death in 1964.

In addition to maintaining a first-class standing throughout his UBC career, Mr. Klett has been active in student affairs in the Faculty of Applied Science and is widely known for his achievements as a distance runner.

He was senior boys aggregate champion in the 1970 Vancouver and District High School Track Meet and has competed for UBC in track and cross-country running. He was a member of the UBC team which won the Canada West University Athletic Association cross-country championship in 1973.

After graduating from UBC in 1975, Mr. Klett plans to work in the field of computer technology before returning to UBC to study for his master's degree.

Two students from Victoria have been named the co-winners of the Harry T. Logan Memorial Scholarship for 1974-75. Each will receive \$350.

They are Edward T. "Ted" Davies, a third-year chemical engineering student, and Megan Hurn, a student in UBC's School of Rehabilitation Medicine. Both attended the University of Victoria before enrolling at UBC.

Both Mr. Davies and Miss Hurn were students at Oak Bay secondary school in Victoria, where they played in the school orchestra and were active in sports and other extracurricular activities.

Mr. Davies was a member of a Canadian band which played at Expo 70 in Japan and toured eastern Canada in 1971.

In the field of athletics Mr. Davies has been active as a tennis player. At the age of 16 he won the B.C. Junior Closed Tennis Tournament and was named the outstanding tournament player. In 1973 and 1974 he won the men's singles in the Victoria City Tennis Championships. He also competes for UBC as a member of the men's tennis team.

After graduation Mr. Davis plans a career in either the petrochemical or pulp and paper industry. He is particularly interested in the problems of pollution and process control in these fields.

Miss Hurn, in addition to playing in her high school band, was a member of the Oak Bay secondary school swimming team and also participated in competitive synchronized swimming outside her school.

She worked with handicapped children at the G.R. Pearkes Clinic in Victoria and on graduation from high school was the recipient of two awards for academic and extracurricular activities.

At UBC she has participated in activities and events in the School of Rehabilitation Medicine, including the annual Wheelchair Wheelathon, a fund-raising activity sponsored by the School.

She hopes to specialize in working with handicapped children after graduation.

The Harry Logan Memorial Scholarship is named for the late Prof. Logan, who taught Classics at UBC — with two interruptions — from 1915 to 1967. He died in 1971.

Dairy Unit Named

Mr. J.C. "Barney" MacGregor, farm manager for the University of B.C., died in the spring of 1974 before the University's new Dairy Cattle Teaching and Research Unit was completed.

Barney MacGregor had been farm manager for 22 years and much of his time in the year before he died had been spent preparing to move into the new unit.

He died suddenly late one evening last April while attending UBC's prize dairy herd in the old Dairy Barn that was a landmark on the campus and has since been demolished.

Now the new unit, which he never had the opportunity of working in, will be named in his memory.

Dr. Warren Kitts, head of UBC's Department of Animal Science, said he was pleased with the decision by the University's Board of Governors to name the new unit after Mr. MacGregor.

"Barney was well known throughout the livestock industry in this province," Dr. Kitts said. "Many of the people who knew him will find it fitting that the unit has been named in his memory."

"He was responsible for about 1,200 animals on a 24-hour basis and showed cattle from the University's herd at the Pacific National Exhibition for more than 20 years and brought a lot of credit to UBC through the many prizes he won."

INSTITUTE IS PEOPLE, NOT

By JOHN ARNETT
UBC Reports Staff Writer

Prof. Charlotte David, director of the B.C. Mental Retardation Institute, would like to set the record straight once and for all.

The Institute, located on the UBC campus, is *people*, not buildings.

It is made up of a group of UBC faculty members working together to activate interest in, and broaden awareness and knowledge of, mental retardation in university and community settings.

And furthermore, it is one of the truly interdisciplinary projects on the campus, with a solid record of achievement in the interdisciplinary field at a time when a debate continues to go on within the University about the value and purpose of interdisciplinary studies.

Somewhere along the line, says Prof. David, confusion has developed in the minds of many people about the role of the Pre-School for Exceptional Children within the framework of the BCMRI.

SEPARATE BODY

Though the BCMRI was instrumental in bringing the pre-school, which accepts up to 32 functionally retarded children between the ages of three and six, to the campus, it has nothing to do with the actual operation of the school, which is an autonomous body within the Department of Special Education in the Faculty of Education.

"However, there is an extremely close relationship between the pre-school and the BCMRI because of the field work and practicum experience that the school provides for our students," says Prof. David, who is also a professor in the Department of Special Education.

Now, as a result of the public support and the fund-raising efforts of the telethon put on by the Vancouver chapter of Variety Clubs International and *The Vancouver Sun's* House of Hope campaign, the BCMRI will at last have a permanent "home" of its own on the campus, replacing temporary quarters in converted army huts on Acadia Road.

Some administrative and faculty offices for the BCMRI will be located in Phase One of the new Variety Club Centre on Osoyoos Road — a \$350,000 project which will also include four special classrooms, a pre-school activity centre, and facilities for staff to conduct interviews, special training sessions and the like. In addition, the University is donating land for the construction of the centre and paying up to \$130,000 for the installation of services to the property.

First sod for the project was turned on Dec. 7, with completion scheduled for late in 1975. A second phase, also costing in excess of \$300,000, and including more classrooms, a covered play area and a unique hydrotherapeutic facility, will probably be started late in 1975 with funds raised from the Sun's 1974 House of Hope campaign and the Variety Club telethon in February, 1975.

"We are greatly indebted to the Variety Club and the Sun for the interest that they have shown, and to the people of British Columbia for responding so magnificently to the fund-raising efforts," says Prof. David.

"Having office space for our faculty members and a seminar and reading room for students will certainly provide impetus to the work of the BCMRI," says Prof. David, who adds that, concurrent with the start on the new building, the Institute, formed in 1967 as a centennial project with funds provided by the federal and provincial governments, is branching out in new directions.

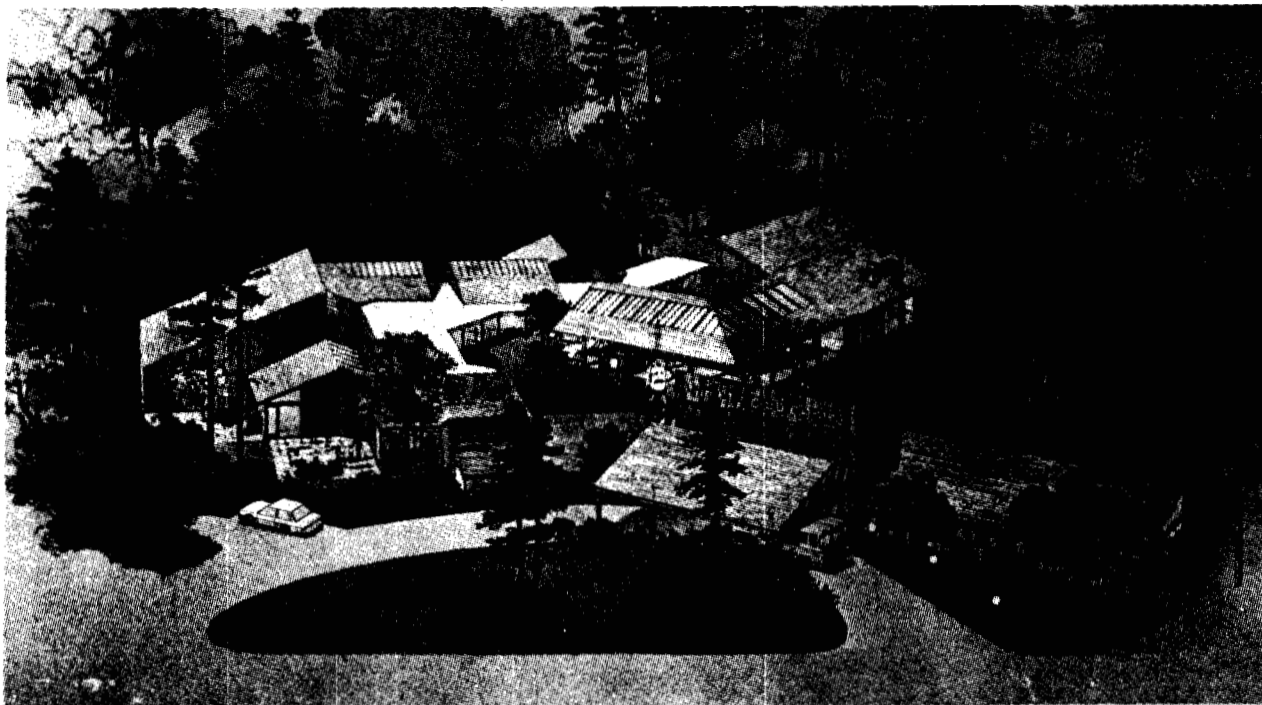
"The original idea behind the Institute was to provide interdisciplinary training in the care of the mentally retarded for professionals who would be going out into the field," says Prof. David.

PROVIDE TRAINING

Eight departments and Schools within the University were originally involved in the program — Special Education, Physical Education and Recreation, Social Work, Nursing, Home Economics, Pediatrics and Psychiatry.

The faculty members were expected to provide training in the care of the mentally retarded either by introducing material into the existing curriculum or by setting up new programs.

However, adds Prof. David, the Institute has always had a greater purpose in mind — the development of an interdisciplinary approach to mental retardation at the university level — and has managed to achieve this in a



New home for the B.C. Mental Retardation Institute, shown in the sketch above by project architect Thompson, Berwick, Pratt and Partners, will be built on Osoyoos Road on the UBC campus. Variety Club International is raising funds for the building which will be named in memory of the late Mr. Bob Berwick, architect and Variety Club member. Building will include six classrooms, a special activity room, administrative wing and hydrotherapy wing. Hydrotherapy facility will bear the name of the late Mr. Bill Galt, former managing editor of *The Vancouver Sun*, an enthusiastic supporter of fund-raising campaigns by the Variety Club. Below, UBC's President, Dr. Walter H. Gage, got some help from young onlookers in turning the first sod for the Institute building at a Dec. 7 ceremony.



Photo by Dave Roels

BUILDINGS

variety of ways through seminars, workshops and other special programs.

The Institute originally paid the salaries of all faculty members involved with it, though they continued as members of the departments and Schools with which they were connected. However, as federal-provincial funding, originally specified for a five-year period, ran out, their salaries were taken over by the departments and Schools concerned.

The faculty members have, however, continued to work with BCMRI on a voluntary basis, setting up non-credit interdisciplinary seminars and other programs for students. "In fact," says Prof. David, "the BCMRI has been operating for the past two years with no outside funds at all."

However, BCMRI has now acquired additional funding — a total of \$350,000 from the provincial government — which constitutes the remainder of the money pledged by the provincial government in 1967, but not used when the time limit for matching federal grants expired. This money will be paid out at the rate of \$70,000 a year for the new five years.

"The Association for Retarded Children of B.C. convinced the provincial government that the funds should be released to permit a new thrust in our work — the training of the para-professional or, as I call them, the eyeball-to-eyeball workers in the sheltered workshops, the adult residences, the day-care centres and other community-based services," says Prof. David.

The training of para-professionals to work with the developmentally disabled is actually a nation-wide project, headed up by a national organization and provincial manpower advisory councils.

Prof. David's role with BCMRI has changed to the extent that she will be concerned with what she calls the "broader outreach" of the Institute in training para-professionals through community colleges and other institutions, while Miss Anne Tilley, an assistant professor in the School of Physical Education and Recreation, will co-ordinate the Institute's activities on the campus.

VARIETY OF COURSES

Prof. David says that community colleges already provide a variety of courses for people who want to get into the health-care or social-service field, and training for work with the mentally retarded could be fitted into these courses.

"I would like to see the BCMRI working as a consultant group to colleges planning courses in the field of mental retardation. However, we can't push ourselves down the throats of the colleges any more than we could push ourselves down the throats of universities," adds Prof. David.

"We would like to work with the colleges in setting up a program based on a national model. This would not only permit portability in employment across the country but also provide for upward mobility by permitting training beyond the two-year college level, perhaps at the University."

Prof. David says she has already been approached by Capilano and Douglas Colleges, which are interested in setting up courses.

Meanwhile, back at the University, Miss Tilley says that as co-ordinator of the programs on the campus "we hope to continue building on the kinds of things that we have been working on in previous years."

Miss Tilley says she is particularly interested in developing continuing interdisciplinary programs for students. "In the past we have presented a seminar in October or November and then we take a break until March. What we are trying to do this year is work with a small group of students on a continuing basis.

"We have always thought, also, that we should try to reach more students on the campus to discuss the whole area of mental retardation, particularly those embarking on careers where they will be working with people. So we hope to put on seminars that will attract people from right across the campus."

Prof. David also sees a public-relations role for the BCMRI. "Over the years a negative mythology has been built up around mental retardation which has resulted in disinterest and even downright hostility on the part of many people towards what is probably the biggest single disability group in the world, touching about 10 per cent of the population if we include the families of the handicapped as well.

"We see as one of our jobs the correction of mistaken impressions and inaccurate information about mental retardation, not only among university students but among the population at large."



Photo by Jim Banham

RECOGNITION has come in the form of a plaque to the team of UBC math students who last year took second prize in the 34th annual William Lowell Putnam Mathematical Competition sponsored by the Mathematical Association of America. Mark Latham, John L. Spouge and J. Bruce Neilson, left to right,

teamed up for the competition, the most prestigious open to undergraduate students of mathematics in North America. Mr. Spouge and Mr. Neilson, who have entered this year's competition, are fourth-year Science students. Mr. Latham is in the first year of UBC's Master of Business Administration program.

Extended Care Unit Planned for Campus

Contracts will be let as soon as possible on a 296-bed extended care hospital at the University of B.C.

Construction of the six-storey structure should begin early in the new year. The hospital, to cost a total of \$11,479,196, will be located to the west of the existing 60-bed Psychiatric Unit on Wesbrook Place and will form part of the University's Health Sciences Centre.

Construction of the facility will take about two years.

The project has been approved by provincial Health Minister Dennis Cocke, the Greater Vancouver Regional Hospital District, the B.C. Medical Centre, and UBC's Board of Governors.

Dr. John F. McCreary, Co-ordinator of Health Sciences at UBC, said the hospital will be a major teaching and research resource to the campus.

APPLY PRINCIPLES

"It will allow us to apply the principles of the health team in a clinical setting that is part of the campus. Rather than students in nursing, rehabilitation medicine, pharmacy, medicine, dentistry, social work and nutrition having to leave the campus to gain practical experience co-operating with each other as a team, they'll be able to function together within a few yards of their classrooms."

Dr. McCreary said the hospital will be particularly important to the Schools of Rehabilitation Medicine and Nursing, which do not have any clinical teaching areas assigned to them.

"The School of Nursing, for example, has been on this campus for about 50 years and in all that time has not had any control over the hospital beds it has used for teaching," he said.

Dr. McCreary added that the extended-care hospital was badly needed. "Because of the lack of extended-care beds, many patients who would be better treated in such facilities are now occupying expensive acute-care beds."

Dr. McCreary said the UBC hospital would save taxpayers the cost of land that might have had to be

expropriated had the hospital been located elsewhere.

"The land would be worth about \$2 million if it had to be duplicated somewhere in the Point Grey area," he said. "There will be a saving to the taxpayer of another significant sum because the building plans will be very similar to those used for the existing Banfield Pavilion at the Vancouver General Hospital.

TIME SAVED

"Rather than designing a completely new extended-care hospital, we are using the plans of the recently-completed Banfield Pavilion and adding space for teaching and research. By doing this we are saving at least one year of construction time during a period when construction costs are inflating rapidly."

The building will consist of four patient floors of 74 beds each as well as two service floors. Nursing units, service areas and patient-care areas will total 145,928 square feet. Teaching and research areas, which will be provided on each floor of the hospital, will total 23,384 square feet.

Teaching and research areas will cost \$1,755,699 and will be paid for by the B.C. Medical Centre. Patient and other areas will cost \$9,723,497, including equipment, and will be funded 40 per cent by the Greater Vancouver Regional Hospital District and 60 per cent by the provincial government.

The GVRHD will build the hospital and sign it over to UBC when it is completed.

OPERATING COSTS

All operating costs of the hospital, including maintenance of teaching and research areas as well as patient areas, will be covered by a per diem rate from the B.C. Hospital Insurance Service.

Mr. Lloyd Detwiller, administrator of the UBC Psychiatric Unit, will also administer the extended-care hospital when it is completed and the Community Health Centre in the James Mather Building on campus, as well as UBC's community health centre near the Vancouver General Hospital.



MR. DONOVAN MILLER



MR. SVEND ROBINSON



MR. RICK MURRAY



MR. KEN ANDREWS



PROF. GIDEON ROSENBLUTH



DR. WILLIAM WEBBER

UBC Governing Board Reconstituted

The University of B.C. now has a reconstituted Board of Governors, provided for under the new *Universities Act* passed at the spring session of the provincial Legislature.

The reconstituted Board, increased in size from nine to 15 members, is made up of the Chancellor and President of UBC; five members elected by the students, faculty members and employed staff of the University; and eight members appointed by the provincial cabinet.

The appointments of the eight persons named by the provincial cabinet on Dec. 17 are effective on Jan. 1, 1975. No date has yet been set for the first meeting of the reconstituted Board. The Board does not normally meet in January.

UBC's new Chancellor is Mr. Donovan F. Miller, a former member of both the UBC Board of Governors and Senate, who was declared elected by acclamation when nominations for this post closed on Dec. 2. (For biographical details on Chancellor Miller and those nominated for four Convocation seats on UBC's reconstituted Senate, see story on Page 12.)

President Walter H. Gage will continue as a member of the Board of Governors until June 30, 1975, when he will retire as President. He will be succeeded on July 1 by Dr. Douglas Kenny, whose appointment as UBC's President was announced in June, 1974, and who is currently on leave of absence from his administrative duties as Dean of the Faculty of Arts.

The two faculty members elected to the Board by the faculty are:

● Prof. Gideon Rosenbluth, a member of UBC's Department of Economics since 1962; and

● Dr. William Webber, professor of anatomy and associate dean of UBC's Faculty of Medicine. He has been on the UBC faculty since 1961.

The two faculty members, who will serve three-year terms on the Board, were elected from a field of ten nominees.

The two students who will sit on the Board for one-year terms are:

● Mr. Svend Robinson, a second-year Law student who has served on UBC's Senate and has been active in student affairs; and

● Mr. Richard "Rick" Murray, a third-year student in the Department of Civil Engineering who has held numerous posts in the student Alma Mater Society and has served on joint student-faculty committees established by the University in consultation with students.

A total of nine students were nominated for the two Board positions.

Elected by the University's employed staff for a three-year term on the Board is:

● Mr. Ken Andrews, an electrician employed by the Department of Physical Plant for the past ten years and the current president of the Canadian Union of Public Employees, Local 116, University Employees. He was elected from a field of 16 nominees.

Of the eight persons appointed by the cabinet to serve three-year terms on the Board, three have served

on the existing 11-member Board under the old *Universities Act*.

The three reappointed are:

● Mr. Thomas Dohm, a UBC graduate and well-known Vancouver lawyer who was a judge of the Supreme Court of B.C. from 1966 to 1971;

● Mr. Charles J. Connaghan, a former president of UBC's Alma Mater Society who is currently president of the Construction Labor Relations Association of B.C.; and

● Mr. Clive Lytle, a UBC graduate who is currently assistant secretary-treasurer of the B.C. Federation of Labor.

New cabinet appointees are:

● Mr. George Morfitt, immediate past president of the UBC Alumni Association and a graduate of UBC's Faculty of Commerce and Business Administration;

● Miss Sadie Boyles, professor emerita in UBC's Faculty of Education and a UBC teacher from 1941 until she retired in 1971;

● Mrs. P.M. Chubb, a member of the executive board of the B.C. division of the Canadian Union of Public Employees and area representative for all CUPE locals in the Greater Vancouver area;

● Mr. Bing Wing Tom, a graduate in architecture from the University of California in Berkeley who is currently employed as a designer by the Vancouver firm of Arthur Erickson/Architects; and

● Rev. George Hermanson, chaplain for the Cooperative Campus Ministry of the Anglican and United Churches on the UBC campus and a UBC graduate.

Mr. Connaghan and Mr. Morfitt were chosen by the cabinet to serve on the Board from a list of nominees submitted by the UBC Alumni Association, as provided for under the new Act.

★ ★ ★

Statements Circulated With Ballot

Under the terms of election regulations approved by UBC's Senate, faculty members and members of the employed staff who were nominated for Board positions were entitled to append a 150-word statement to the biographical information circulated with ballots.

Prof. Rosenbluth, in his statement, said it was his view that elected members of the Board "are not mandated representatives of an interest group, but are selected by their peers as most qualified to advance the objectives assigned to the University."

Prof. Rosenbluth, who is currently a member of the UBC Senate and a past president of the Canadian

Association of University Teachers, added that as an economist "I am trained to evaluate policy alternatives in terms of their costs and benefits, with special attention to those costs and benefits that do not appear in the financial statement."

Dr. Webber, in his statement, said he viewed the University of B.C. as an institution with major community, provincial, national and international responsibilities for teaching and scholarship. "At the same time, it is very much a community of all those who work within it."

The new *Universities Act* and the appointment of a new President, he continued, "provide an opportunity for careful assessment of our existing practices so as to retain those which function well and to introduce changes where required. In this context the primary role of the Board is, as always, to seek the necessary resources to support high-quality programs and needed new endeavors."

To carry out this function, he said, the Board must work effectively with external agencies, including governments and the new Universities Council, and with internal organizations, including the Senate, the Faculties, the Faculty Association, the Alma Mater Society and the Alumni Association.

"It is essential to the welfare of the University," he concluded, "that the Board both function well and be seen to do so."

The nine students nominated for two Board positions campaigned by poster, leaflet and statements published in the student newspaper, *The Ubysey*.

In his campaign literature Mr. Murray advocated improved campus planning, closer relations with the off-campus community, increased financial support by the University administration for UBC's athletic and recreational programs, improvement of campus ancillary services such as the Bookstore and Food Services, and construction at the northern end of the campus of multi-level underground parking facilities that would be accessible to students and faculty members on an equal basis.

In his campaign statement Mr. Robinson said that if elected to the Board he would listen to students and inform them "about what's going on at the Board level."

He said that secret Board meetings "must, and will, end."

Mr. Robinson's campus posters advocated "better services, such as housing and transit, improved financial aid, demystification of decision-making at UBC, affirmative action on the needs of women on campus, and community involvement."

Mr. Andrews, in a statement circulated with the ballot to members of the employed staff, referred to his involvement with community and campus activities and added that his concern is for the future, "for the problems of the campus, for improving conditions and benefits for all employees who live and work at the University."

Senate Vetoes Disclosure of Vote Results

UBC's Senate has rejected a recommendation providing for the public disclosure of the results of all elections to the Board of Governors and the Senate.

The recommendation, from the Senate Committee on the Implementation of the *Universities Act*, was debated and narrowly defeated at Senate's Dec. 18 meeting. Under the terms of the recommendation, disclosure of results would have been subject to the approval of all candidates in each election.

The recommendation was opposed by Prof. Robert M. Clark, director of the Office of Academic Planning, who said that the pattern of elections to UBC governing bodies indicated that the individuals who were best known stood the best chance of getting elected.

"Some people who might make a contribution end up with a small number of votes," he said, "and since the results aren't known it's not a discouragement to run again if their prospects are rather small."

Dr. Clark said he suspected one of the consequences of the publication of results would be "an increasing politicization of Senate, which I recognize many would think is a very good thing."

He said he would welcome a fuller statement by candidates when ballots were circulated, but added that the increasing political emphasis implied in the publication of election results "is not going to lead to any more effective elections or the improvement of the conduct of those who do get elected."

Prof. Rosenbluth supported the recommendation on the ground that publication of election results would be an important aid in gauging "the state of opinion on the campus."

He said candidates in the elections represented different interests and tendencies of thought. Publication of election results would enable judgments to be made about the state of opinion among faculty, students and Convocation.

"The suppression of this sort of information," he said, "makes it extremely difficult to get any meaningful relationship between the feeling among the constituents and the governing bodies."

Prof. Milton Moore, of the Department of Economics, supported Prof. Clark. He said candidates were standing on their own merits and the electors would choose them on the basis of whether candidates would serve the best interests of the University.

Prof. William C. Gibson, head of the Department of the History of Medicine and Science, said that in a democracy "you owe it to the electorate to let them know what has been determined."

After the recommendation was defeated, Mr. Gordon Funt, a student Senator, gave notice of motion providing for the disclosure of results for the election of students to the Board and Senate.

New Elections In the Offing

UBC's Senate took other steps at its Dec. 18 meeting leading to the election of a reconstituted Senate.

On the recommendation of the Committee on the Implementation of the *Universities Act*, Senate approved a motion requesting President Gage to call a joint meeting of the Faculties of the University on Feb. 13 to determine the way in which the 10 Joint Faculties representatives to Senate are to be elected.

Faculty members who wish to make submissions concerning procedures to the Feb. 13 meeting are asked to provide written notice of motion to the Registrar, Mr. J.E.A. Parnall, not later than Jan. 23.

Senate also approved a recommendation that individual Faculties make their own decisions on procedures and timing of the election of their two Senate representatives. All elections are to be completed by March 31.

Ballots for the election of four Convocation members to UBC's reconstituted Senate are now in the mail to all Convocation members for whom the University has current addresses. A total of nine persons have been nominated for the seats.

Deadline for the receipt of ballots in the Convocation election is Feb. 18. The election results will be announced at a Senate meeting scheduled for Feb. 19.

Under the terms of the new *Universities Act*, UBC's Senate will be reduced in size from 99 to 79 members.

UBC IWY Lectures Set

Two distinguished women will open International Women's Year at UBC in January — Dr. Margaret Mead, world-renowned anthropologist, and Sylva Gelber, one of Canada's leading women in labor relations.

Dr. Mead currently holds the positions of Curator Emeritus of Ethnology with the American Museum of Natural History and Adjunct Professor of Anthropology at Columbia University. While in Vancouver she will inaugurate the new headquarters of the World Federation of Mental Health, located on the UBC campus under the direction of Dr. Tsung-Yi Lin, of UBC's Department of Psychiatry.

Dr. Mead will address the Vancouver Institute on the topic "The Social Significance of Theories of Human Aggression" on Saturday, Jan. 11 at 8:15 p.m. in Lecture Hall No. 2, Instructional Resources Centre.

Sylva Gelber, director of the Women's Bureau of the federal Department of Labor, has been invited by the Dean of Women's Office to speak on "The Future of Women in the Work Force" on Jan. 16 at 12:30 p.m. in Room 106 in the Buchanan Building.

Ms. Gelber, who was with the Department of National Health and Welfare for 18 years before she was appointed to direct the Women's Bureau, will also take part in a series of seminars arranged by Prof. Richard Splane of the School of Social Work. At the Jan. 16 seminar at 4:00 p.m. in Lecture Hall A in the School of Social Work Building, Ms. Gelber's topic will be "Women in International Social Welfare."

A one-day workshop, "Women in India," will take place on Saturday, Jan. 18, in the lower lounge of International House. Beginning at 10:30 a.m., the day will feature three women speakers: Elor Ames, of the Psychology department of Simon Fraser University, who will speak on "Childhood Socialization of Indian Women"; Vijay Agnew, a Ph.D. candidate from the University of Toronto, will talk about "Indian Women in Extremist Politics"; and Dr. Leena Naidu, of the Sociology department of Brandon University, will give an address entitled "Women Politicians in the Indian Parliament." A curry lunch will be served at minimal cost to the guests.

On Tuesday, Jan. 28, at 7:30 p.m., "Bisexuality: A Study of Sexual Identity" will be the subject of an address by Dr. Pepper Schwartz, assistant professor in the Sociology department, University of Washington, and author of several sociological works on sexual roles in contemporary society. Sponsored by UBC's Women's Office, Dr. Pepper will speak in the Blue Room of the Arts I Building.

Beginning Jan. 14 at 9:00 p.m. a series of broadcasts entitled "Women in Focus" will be presented by the Women's Office on Channel 10, Vancouver Cablevision. The series will run every Tuesday night for 20 weeks and will be entirely programmed, produced and directed by members of the audio-visual workshop directed by Marion Barling of the Women's Office. Topics will include women in the arts, discrimination against women in schools and the work force, and interviews with interesting women who will be on the UBC campus during International Women's Year.

Another television series on Channel 10 evolving from UBC women's activities begins Monday, Jan. 13, at 9:30 p.m. Joyce Searcy, assistant to the Dean of Women, will produce and host 13 Monday broadcasts, "The Distaff Side: Conversations on the Social and Literary History of Women." First of the series will have women from UBC's Classics department — Elizabeth Bongie, Ann McCallum and Shirley Darcus — discussing how men viewed women in 500 BC in Athens and in 100 AD in Rome.

Dr. Robert Ornstein, research psychologist and author of "The Psychology of Consciousness," has been invited to be an International Women's Year speaker in late January. Dr. Ornstein will talk about his research into split-brain consciousness (the concept that the left hemisphere of the brain governs rational thinking, while the right hemisphere deals with intuitive thinking) and the implications of how this concept might affect women. Date of Dr. Ornstein's talk will be announced later in January.

PHILOSOPHER SPEAKS

A young philosopher who has published extensively on the topics of philosophy, sociology and political science is one of two distinguished scholars who will visit the campus during January as Cecil H. and Ida Green Visiting Professors.

Dr. Brian Barry, 39, official fellow of Nuffield College at Oxford University, will give three lectures under the general heading "The Theory and Problems of Social Justice."

His first lecture takes place today (Jan. 6) at 12:30 p.m. in Lecture Hall No. 4 of UBC's Instructional Resources Centre. He speaks again on Thursday (Jan. 9) at 12:30 p.m. in Lecture Hall No. 2 of the IRC and

also on Saturday, Jan. 18, in the same location, starting at 8:15 p.m. The latter lecture will be co-sponsored by the Vancouver Institute.

The second Cecil H. and Ida Green Visiting Professor this month will be Prof. Theodore Roszak, a historian from California State University, Hayward, Calif.

Dr. Roszak is described as a visionary thinker and a leading interpreter of the contemporary religious renaissance in the Western world. He has written three best-selling and controversial books — *Pontifex*, *Where the Wasteland Ends*, and *The Making of a Counter Culture*.

Dr. Roszak will give lectures on three successive Thursdays, beginning Jan. 16, at 12:30 p.m. The first lecture will be held in the Hebb Theatre and the remaining two in Lecture Hall No. 2 of the Instructional Resources Centre. The lectures will have the general title: "Aquarian Frontier: The Landscape of Contemporary Spiritual Adventure."

TRIUMF Extracts A Beam

The official opening of TRIUMF, the cyclotron now in operation on UBC's south campus, will take place in May.

Details of the opening are now being worked out following the successful extraction of a beam from the cyclotron on a Sunday afternoon a few days before Christmas.

The event was the major watershed of TRIUMF's five years of construction and was heralded by TRIUMF administrators as the most important event in the history of science in Western Canada.

TRIUMF is a machine for producing mesons, subatomic particles found in the nucleus of the atom. It is through mesons that extremely powerful nuclear forces hold positively-charged protons and neutrons, which don't carry a charge, together in the nucleus of the atom.

The cyclotron produces mesons by accelerating negative hydrogen ions until they approach the speed of light, then directing the ions onto a target. The tremendous impact of the collision shatters the atoms of the target and some of the particles produced are mesons.

The possible practical benefits of research at TRIUMF include more efficient nuclear reactors and more effective cancer treatment. Scientists are hoping they can use meson beams to kill certain types of cancer cells. The advantage of a meson beam over conventional Cobalt 60 rays or x-rays is that its energy can be released exactly where it is wanted. This means that a cancerous tissue can be destroyed by a negative meson beam without also destroying the healthy tissue in the path of the beam.

Several years of work will be needed before meson beams can be used routinely in cancer therapy, said TRIUMF director Dr. J. Reginald Richardson.

TRIUMF scientists emphasize that it is totally impossible to predict other material benefits that might result from research using the cyclotron.

TRIUMF is a co-operative project involving Simon Fraser University and the Universities of Alberta, B.C. and Victoria. At first only the three B.C. universities were included in the consortium making up TRIUMF — an acronym for Tri-Universities Meson Facility — but later the University of Alberta was included.

Total cost of the project was about \$35 million. UBC REPORTS will carry a special supplement at the time of TRIUMF's official opening.

UBC REPORTS

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UBC ALUMNI Contact

PREPARED FOR UBC REPORTS BY THE UBC ALUMNI ASSOCIATION



Photo by Tish Woodley

Mell Reeves, president of the Men's Big Block Club at UBC, was one of 62 UBC students, recruited by the Men's and Women's Athletic Committees, who contacted almost 1,100 graduates during recent Alumni Fund phonathon.

Panelists' Viewpoints Vary

Should our universities be turning out a higher percentage of graduates who are equipped with vocational skills which will be of immediate use to their prospective employers?

Or should the emphasis be on a broad, generalist education which would teach basic concepts in a number of disciplines, thus enabling the student to see human problems in a wider perspective?

Or are most of today's graduates relatively well-trained to step into the positions employers want filled, although they might be a bit short on maturity and common sense?

Each position has its proponents and detractors. The benefits and problems of each concept were explored at a panel discussion on Nov. 18 following the annual Student-Alumni Dinner at Cecil Green Park. The event was attended by more than 60 students, alumni and senior University faculty members.

Panelists Glen Forrester, research officer at the B.C. Research Council; Robert Currie, vice-president of Panarctic Oils, Calgary; Dr. Margaret Fulton, UBC's new Dean of Women; and the reactor, Dr. George Volkoff, Dean of Science at UBC, led the debate which was followed by a lively discussion with the audience.

Mr. Forrester, who has been working on a 3½-year Research Council study of the impact of community colleges in B.C., said surveys of employers, post-secondary students, high school students, and faculty members have convinced him that universities are not practical enough in their training of graduates.

"Universities do not provide the educational training that the employer wants and needs, or that the student wants and needs."

But Mr. Currie, who is in charge of land and administration at Panarctic Oils, said he is impressed with the graduates his company employs.

"We hire them because of their performance at the interview table, their desire to learn and grow, and their grasp of the theoretical subject."

He said that while knowledge of specific skills is very important, there is a danger in people becoming too narrow in their capabilities. He said the problem continually arises where a person may have worked for five or 10 years at a specialized job, but when the time comes for promotion to an administrative post the person doesn't have the necessary wider range of knowledge, and therefore can't handle his new duties.

Dean Fulton, the final speaker, deplored the trend to increased specialization.

"Since the first Sputnik went up, our universities have become superior vocational training schools. In our haste to get trained scientists and engineers to compete in the atomic age, we have totally disregarded the need to develop the individual as a whole."

She said the strictly utilitarian approach to education has brought mankind to a state of utter confusion.

"The last 20 years have seen the universities of the world compete to see who graduates the largest number of the most highly trained experts in every field you wish to name, and yet the human race bleeds and in fact faces extinction."

Dr. Fulton called for an education which first teaches the individual to become wholly aware of one's humanity.

TEN LECTURES SET

It's going to be even more than a four-star season for the Vancouver Institute this spring. They have ten outstanding programs scheduled for the campus Saturday-evening lecture series.

All lectures, which are free, begin at 8:15 p.m. in Lecture Hall No. 2 of the UBC Instructional Resources Centre.

Jan. 11 — Dr. Margaret Mead, world renowned anthropologist, speaks on "The Social Significance of Theories of Human Aggression." She is the first speaker in UBC's special International Women's Year program.

Jan. 18 — A young Oxford philosopher, Dr. Brian Barry, fellow at Nuffield College, looks at "Problems of Social Justice."

Jan. 25 — A distinguished food scientist, Prof. James F. Richards, explores "The Myth of Organic Foods."

Feb. 1 — UBC Professor Emeritus of Geology Dr. Harry Warren, an outspoken and fearless debater on many public issues, considers mining in B.C. — "Gold or Dross — The Romantic Past and Future Potential of B.C.'s Mineral Wealth."

Feb. 8 — An evening of music when Mr. Martin Best, guitarist, lutenist and singer who is, according to the Edinburgh *Scotsman*, "irreverent, touching, elegiac, bitter, riotously funny and always brilliant," presents "The Art of the Minstrel."

Feb. 15 — Japan's famous Nō Theatre, with Sadayo Kita and his troupe of ten performers, will give a lecture demonstration of "Hagomoro" (The Heavenly Maiden), a memorable piece from this classic Japanese theatre's repertoire.

Feb. 22 — B.C.'s director of human rights, Ms. Kathleen Ruff, will look at "The New Issues in Human Rights."

March 1 — One of the foremost living experts on personality theory, Prof. Raymond B. Cattell, will discuss "A New Morality Based on Science."

March 8 — Prof. Frederick C. Steward, director of the Laboratory for Cell Physiology, Growth and Development at Cornell University, will speak on "Cloning."

March 15 — "A Roving Editor Reports," when distinguished *New York Times* journalist and editor Mr. Harrison Salisbury visits UBC, courtesy of *The Vancouver Sun*.

Chancellor Elected by Acclamation

UBC's new Chancellor is Mr. Donovan F. Miller, BCom'47, who was declared elected by acclamation on Dec. 2, the last day for receipt of nominations.

Mr. Miller, who will succeed the Hon. Nathan Nemetz, Chief Justice of the Supreme Court of B.C., will take office on a date to be specified in 1975. Mr. Nemetz decided not to run for a second term as Chancellor because of the heavy work load as Chief Justice of the B.C. Supreme Court.

Mr. Miller, who as Chancellor will be a member of both the Board of Governors and Senate now being reconstituted under the new *Universities Act*, is currently vice-chairman of the Board of Directors of the Canadian Fishing Co., a firm he has been associated with since 1947.

Mr. Miller is no stranger to the University's two leading decision-making bodies. He was a member of the UBC Senate from 1962 to 1970 and a member of the Board of Governors from 1963 to 1972. He served as chairman of the staff committee while a Board member.

Mr. Miller, who holds a Master of Science in Business Administration degree from Massachusetts Institute of Technology in addition to his UBC Commerce degree, has also been active in the UBC Alumni Association. He was Association president in 1960 and chairman of the Association's annual giving committee in 1958.

UBC's Chancellor-elect has also been closely associated with various government and professional bodies concerned with Canada's fishing resources.

He is currently a member of the International North Pacific Fisheries Commission and is a former president of the Fisheries Council of Canada. He is also currently chairman of Canadian Fisheries Advisory Council to the federal Minister of Fisheries.

(For news of other elections to the Board of Governors, see Page 10.)

An election for the four Convocation seats on Senate will be conducted by mail ballot by the University Registrar as a result of the nine nominations received by Dec. 2

The nominees for Convocation seats are:

Monica McArdle Angus, BSN'58, MA'70, a past president of the B.C. Registered Nurses' Association and a current member of Senate;

Mr. Justice John C. Bouck, BA'54, LLB'58, a former Vancouver lawyer and Bencher of the Law Society, now a member of the B.C. Supreme Court;

Beverley McCorkell Field, BA'42, a past president of the Alumni Association, currently a member of Senate and the Board of Governors;

Graham N. Forst, BA'62, PhD'71, currently a faculty member of Capilano College, North Vancouver, recently returned from several years teaching at American universities;

Betsy Greer Lane, BA'49, currently a member of Senate and a former member of the Canada Council;

Charles D. Ovans, BA'40, retired general secretary of the B.C. Teachers' Federation and a past president of the B.C. Education Research Council;

Peter J. Sharp, BA'36, BCom'36, a retired executive officer of the Royal Bank of Canada and a past president of the Alumni Association and the University Club of Vancouver;

Gordon A. Thom, BA'56, principal of the B.C. Institute of Technology and a former assistant director of the Alumni Association; and

Benjamin Trevino, LLB'59, a current member of Senate and the Board of Governors and a past president of the UBC Alma Mater Society.

Full biographical information on all the candidates will accompany the election material mailed by the University Registrar to alumni whose addresses are known. Changes of addresses should be sent immediately to Alumni Records, 6251 N.W. Marine Dr., Vancouver B.C., Canada, V6T 1A6.