

UBC ALUMNI

Chronicle



CANADA'S COMMUNICATIONS SATELLITE

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to all U.B.C. Alumni*

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CANADA'S COMMUNICATIONS SATELLITE

THE NEW EARLY BIRD IN SPACE

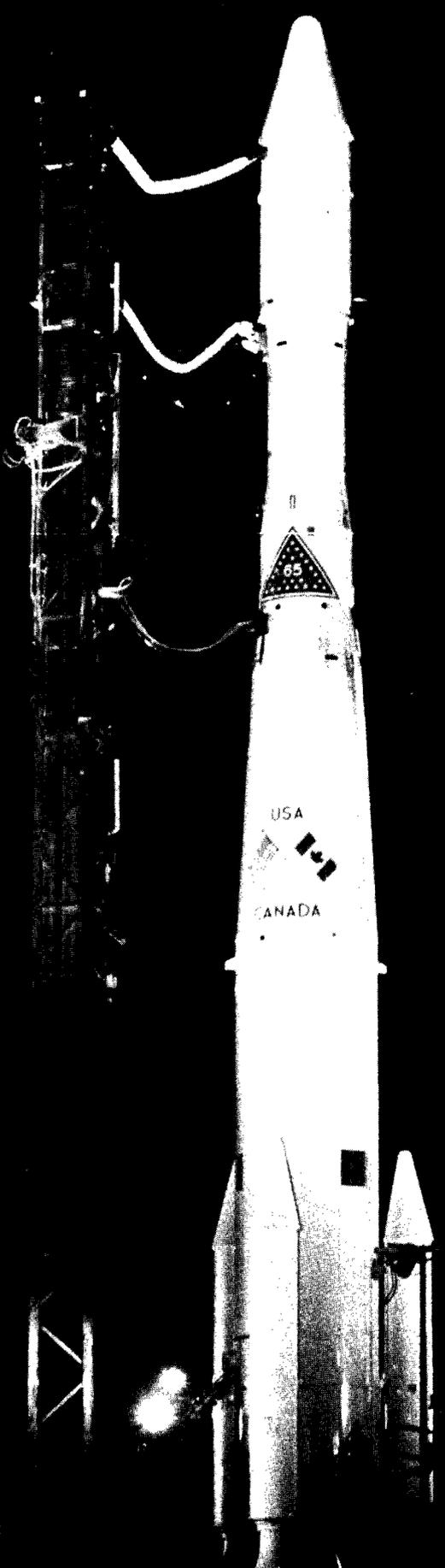
By CLIVE COCKING

THAT'S ONE SMALL STEP for man, one giant leap for mankind." With these now famous words, U.S. astronaut Neil Armstrong stepped out onto the moon, the first man to walk on its surface. And his words rang true in more than one sense. The flight to the moon undoubtedly marked an important step forward in the technology of space travel. But it was also a giant leap forward in the history of man's exploration of his universe.

As such, this feat by the U.S. has been widely and justly acclaimed. It was, of course, the most glamorous of space projects. Efforts in other areas and by other nations have tended to be dwarfed by it, at least in terms of public attention. Yet, some efforts should not be lost sight of. For while Apollo XI was streaking toward the moon, work was quietly going on in Canada on a development that will likely have more profound and immediate impact on this nation's way of life than any number of flights to other planets.

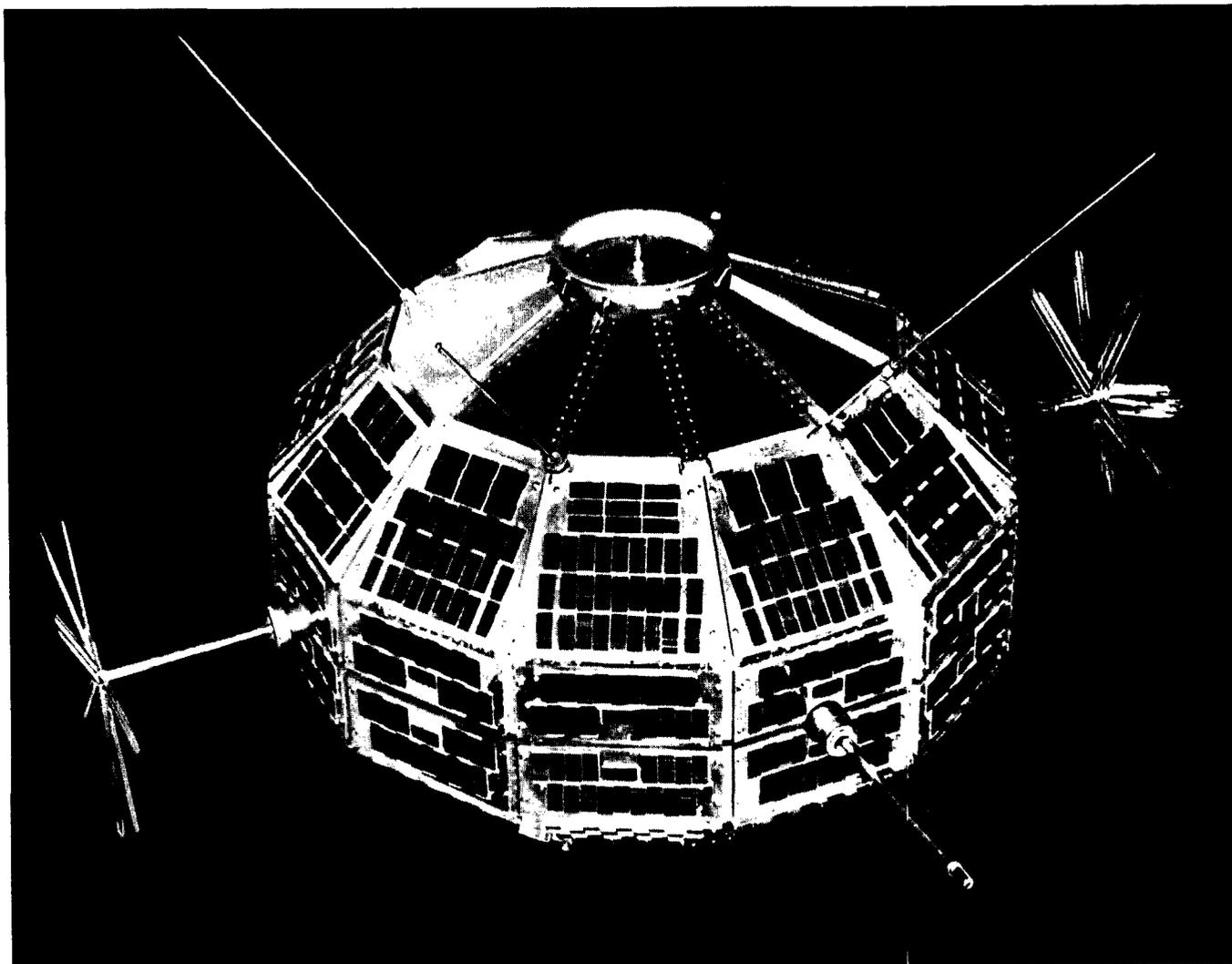
The fact is that Canada is on its way to being the first nation in the world to have its own domestic satellite communications system. A combined public-private corporation, Telesat Canada, has been established and the first satellite is due to be launched in late 1971, with the system being fully operational in early 1972. That day will likely be as important in Canada's history as that day in 1885 when the last spike was driven in the Canadian Pacific Railway.

Not only will the satellite communications system represent a major step forward in Canadian technology, it will also represent a giant leap forward in the capacity of Canadians to communicate with each other. The system will boost greatly telephone, telegraph, data and television transmission to all parts of the country. And it will herald the coming revolution in communications, a revolution with great potential benefits—and problems.



All of this is not to say that other nations are not also developing domestic satellite communications systems. The U.S., the Soviet Union, Japan and several European countries have development programs underway. In addition, there is already established, sparked by U.S. commercial interests, an international satellite communications system, Intelsat (International Telecommunications Satellite Consortium), in which Canada is participating. It has four satellites aloft. But the point is that Canada is doing more than hold its own in this important field. As Communications Minister Eric Kierans told Parliament this spring: "In the conquest of space, while our contribution is modest by comparison to those of the United States and the USSR, we nevertheless rank among the pioneers." And *that* undoubtedly comes as a surprise to many people.

Minutes later this U.S. rocket fired Canada's ISIS 'A' into orbit.



Alouette II is one of three Canadian research satellites in orbit. Third nation to launch a satellite, Canada may be first to have a domestic satellite communications system and UBC grads are helping develop it.

It all began when Alouette I was launched in September, 1962, making Canada the third nation in the world (after Russia and the U.S.) to have a satellite in orbit. This was followed by Alouette II in 1966 and ISIS 'A' early this year, both research satellites investigating the ionosphere. Two further research satellites, ISIS 'B' and ISIS 'C' will be launched in the next few years. At present the federal government is studying design proposals for the first communications satellite developed by RCA Limited and Northern Electric. Arrangements for its manufacture are expected to follow shortly.

In an indirect way, the University of B.C. has contributed to these developments. Several UBC graduates have played important parts in designing and developing the Alouette and ISIS satellites. They are now working hard on the communications satellite and related facilities.

At RCA's labs in Montreal, for example, Terence A. Cagney, BAsC '55, served as project engineer for ISIS 'A' and is now manager, electrical design, in the company's aerospace engineering department. He is supervising the staff responsible for the design, test and calibration of electronic equipment and subsystems for use in satellites and associated ground support facilities.

J. S. Korda, BAsC '65, is in charge of aerospace reliability engineering with the same company. Korda's job is to see that an RCA communications satellite will operate successfully for its intended five-year lifetime. Also with RCA, J. A. Stovman, BAsC '53, is responsible for subsystem designs, specifications and drawing approval relating to all satellite transmitters, receivers, antennas and tape recorders.

In Ottawa, W. R. Reader, MAsC '62, is manager of the aerospace IV group with Northern Electric. His



Northern Electric satellite (above) shares oil drum look with RCA plan.



Paving way for series of automated satellite earth stations in our north is new station near Bouchette, Que. UBC grads helped design it.



W. R. Reader inspects model of communications satellite antenna.

recent work has involved system design of a satellite communication system for northern Canada and



Testing satellite equipment are grads Quon Chow (centre) and John Bond.

project management on the design and construction of a prototype

earth-terminal for this system. That terminal was recently completed at Bouchette, Quebec, 70 miles north of Ottawa.

Two other UBC graduates are also involved with Northern Electric in its communications satellite program. John A. Bond, BAsC'64, MAsC'67, is engaged in developing automatic control and switching systems for use in earth terminals. Quon S. Chow, BAsC'64, is working on developing a special modulation technique for encoding the television sound signal inside the picture signal for transmission over a satellite link.

Another alumnus is one of the key personnel with the federal department of communications, the department responsible for the satellite communications system. He is G. K. Davidson, BA'41, BAsC'41, the director of operations for the satellite project.

After that important count-down in 1971, a NASA Delta or Atlas rocket will fling into space an object resembling a six-foot tall oil drum with an antenna of equal size mounted on it. That will be Canada's first communications satellite. Both satellite designs, while differing in details, look like oversize oil drums. Each consists of a large cylindrical housing with an antenna (elliptical in one design, paraboloidal in the other) mounted on top. Weight at lift-off will be about 1,000 pounds. Thousands of solar cells on the surface of the satellite will be the main source of power for the electronic equipment, backed up by nickel-cadmium batteries.

To be an effective communications instrument, the satellite must be in synchronous orbit with the earth—in effect, hover stationary. The satellite will consequently be thrust into orbit 22,300 miles high over the equator and “parked” in the same longitude as Winnipeg. Since the orbit period at that height is 24 hours, the satellite will then appear to be stationary relative to the earth. Its antenna will be permanently beamed toward Canada, providing coverage for the whole nation.

The ground segment of the system will consist of a master control station, four regional multiple-access, transmit-receive stations scattered across Canada and 20 tele-

vision receive stations located in the north. Total cost is expected to be between \$65 to \$75 million. For this price, Canada will get greater communications capacity at a time when this is becoming vitally needed. Forecast growth of long-distance telephone circuits, for example, is about 20 per cent annually. The satellite will add capacity for six new television channels or 6,000 telephone voice circuits. It is expected this will meet Canada's needs for 10 years.

The advantages to the system will be many. "The most important advantage," said Terence Cagney, "will be the increase in capacity and flexibility the satellite system will offer for television, telephone and data transmission traffic. This is particularly true in northern areas, where vast stretches of wilderness and very low population density virtually preclude the use of terrestrial cable or microwave links." The domestic satellite system will provide the north, for the first time, with high quality telephone and data transmission service—and full television coverage. It will bring the north into the mainstream of Canadian life.

For the rest of Canada there will be other benefits as well as a simple increase in communications capacity. For one thing, it will give a boost to bilingualism, since it will be possible to extend television services in both languages to all Canadians at an economic cost. It will also enable television broadcasters to provide separate television distribution to each of the six time zones or alternately common simultaneous distribution to all areas for events of national interest. And national educational television may become an economic possibility.

One of the main reasons Canada is moving so swiftly in this field is that there is a shortage of "parking" spots in space. For a satellite to be in synchronous orbit with the earth it must be stationed over the equator at 22,300 miles high. Communications satellites must be six degrees of longitude apart or their signals will interfere with one another. This means that in the area serving North, Central and South America there are at most six or seven locations. The U.S. wants four to cover four time zones, Canada wants one, Bra-

zil wants one and some other South and Central American nations are also showing interest. The best way to be sure of a spot is to be there first.

That's why Canada is making arrangements with Intelsat to lease the Early Bird satellite when its active broadcast life ends next year. The plan is to use Early Bird to work the kinks out of ground stations at Bouchette, Que., and Mill Village, N.S., and to gradually maneuver the satellite into one of the coveted parking spots covering North America. Then when the time comes to put up our own communications satellite, it can slip into the spot held by Early Bird.

This determination gives an indication of how important a domestic communications satellite system is considered to be by Ottawa. The satellite may well do for Canada's north what the building of the railroad did for southern Canada: unify and stimulate development. As Communications Minister Kierans told Parliament: "Once in operation the domestic communications satellite system will constitute a project of which all Canadians will be proud. We will have blazed a trail both in what we are doing and in the way that we are doing it. Above all, it will be a project that will help to knit this country more closely together and to narrow the differences in living standards between those Canadians who live amid the rigours of the frontier and those who live amid the comforts of the cities. In essence, the domestic communications satellite system will reflect, and will help to fulfill, the substance of confederation."

Canada's satellite effort, of course, will not end there. It is recognized that a second communications satellite will ultimately have to be parked next to the first to meet the nation's future needs. Considerable thought is also being given by the federal government to the possible use of satellites for resource surveying and mapping.

On this score, Terence Cagney feels Canada must push ahead even more strongly than it is now doing. Says Cagney: "I would like to see this country invest more heavily in certain aspects of this field which, at the present time, show promise of paying handsome dividends in terms

of the nation's development. I am thinking particularly about resource survey satellites, about communications satellites using ultra-wideband laser carriers and about direct-tele-sat communications satellites deriving power from atomic reactors. I feel there is no question about the availability of competent Canadian scientists and engineers to undertake these projects, but no progress will be made unless this country, as a whole, is willing to devote the resources necessary for their development."

The potential benefits are obviously great. In the area of communications alone, the "global village" McLuhan talks about may well become a reality. With programs and news criss-crossing the globe almost instantaneously through satellites, man may well begin to feel more strongly the common humanity he shares with inhabitants of other countries.

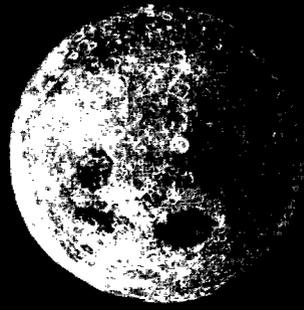
But at the same time, satellite communication will bring with it some thorny problems. At present, the communications satellites put forth a feeble signal which must be received at a ground station and be amplified for transmission into homes. The ground station obviously serves as a control point where a vigilant government can see, for instance, that television programs beamed into Canadian homes have 55 per cent Canadian content. But what happens when the satellite has enough power to bypass the ground relays and broadcast directly into home television sets?

This is something that should have more than just television network owners concerned. Perhaps 1984 is closer than we think. □



The APOLLO advertisement on the facing page was placed by a Vancouver company on the actual day of the moon landing, and without awaiting the outcome. The response was immediate and overwhelming, and in answer to many requests a large format (16" x 24") reproduction suitable for framing is available free to readers of the UBC Alumni Chronicle upon request to:

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Has Success Spoiled CUSO?

by Joyce Bradbury

WHEN THE FIRST CUSO volunteers left for India, Ceylon and Sarawak in 1962, they went to "serve and learn." Last year, Canadian University Students Overseas volunteers went forth under advertising banners proclaiming, "development is our business." The times—and CUSO—have clearly changed. CUSO has become big business in the external aid field.

Seven years ago, CUSO was launched on a shoestring and a wave of enthusiasm in Canadian universities. That first year, its organizers scrounged a budget of \$15,000 and sent 16 volunteers, four from UBC, to three countries. Today, CUSO has an annual budget of \$4.5 million, a permanent staff of 55, including 25 area coordinators overseas. The organization has 1,100 volunteers serving in 43 countries and has just sent out a freshly-trained crop of 700. Among the CUSO staff, executive salaries now range from \$9,000 to \$14,000 a year.

But not everyone is happy with CUSO's burgeoning size and newfound corporate image.

There is a fear within the organization that CUSO, once a vital, informal group of volunteers, is los-

ing its intimacy in a spreading bureaucracy where too many people don't know each other and couldn't care less. There is fear too, that the bureaucracy and expanding budget of CUSO eventually will promote a top-directed organization tied too closely to Canada's foreign policy and which is forced to employ an increasing number of unqualified people. In essence, the underlying concern is that CUSO is losing its identity as a volunteer, student organization where the incentive, initiative and policy come from local university groups rather than a bureaucratic centre.

One of the critics of this new CUSO is Joseph Richardson, UBC Assistant Professor of Asian Studies. He goes so far as to say, "We should plan to phase CUSO out in 5 years. We'll need radical new thinking in CUSO in a few years which won't be possible if a status quo is allowed to develop. When jobs are at stake, change is naturally resisted."

Mrs. Janet Roberts, a 1966 volunteer to Ghana and acting coordinator of the CUSO committee at UBC, is also unhappy with the way things are going in the organization. She observed, "CUSO is not attract-

ing people who know anything about the developing world or who can empathize with the problems there. We are attracting people who want their little adventure, who tend to talk about the price they're going to pay their houseboys. CUSO's new image is attracting status quo people. It has lost its vitality in terms of the people who go overseas." She added, "It's time there was a dialogue in CUSO to determine where the organization is going and why. The CUSO people in Ottawa should know that there is widespread discontent at the local level and among returned volunteers."

Prof. Richardson agrees. "There has been a move in the national organization to emphasize development and professionalism", he noted. "There is a sense in which this is a kind of arrogance because however competent volunteers are, neither their competence nor the structure of CUSO can be said to be really significant in terms of industrial and social development in any

Mrs. Bradbury, BA'67, a former Ubysses reporter, is a Vancouver freelance writer. She plans to return to UBC next year to enter law.



CUSO agriculture volunteer Jim Ward, BSA'64, (top, left) helps Indian farmer fix his crude plough. And Martin Horswill, (bottom, right) conducts informal English class under a shady tree in Kenya.

of the developing countries. Development is the business of international organizations and governments. To have this slogan is unrealistic. CUSO is a matter of individuals going out and giving and receiving a cultural experience. So the real indices of success in CUSO should remain the enthusiasm of the volunteers and their personally enriching experiences."

However, those now in positions of authority within CUSO deny that the organization is losing its effectiveness. Rather, they see changes which they describe as evolutionary.

Jean-Marc Metieier, director of the CUSO Asia program and returned volunteer from Thailand, said that the original ideology of CUSO has undergone a definite evolution in terms of what developing countries need. He said that formerly the volunteer was a BA graduate who "went abroad to suffer with the people or try to make deep contacts and establish communication". During the last few years this emphasis has shifted and CUSO has stressed professional skills and efficiency because overseas governments increasingly want professional people.

Robert Sallery, director of plan-



ning for CUSO, does not agree that the usefulness of CUSO is nearing an end. He pointed out, "I think we can go on longer in terms of providing manpower even though it means that we may have to change some of our conditions. The BA graduate is not completely useless. We might provide him with assistance so that he can become retrained. This means, of course, that we would have to up our commitment in terms of finance. We also need a more extensive advertising campaign if we're going to attract the 15,000 volunteers we need to fill job re-

quests we get each year from developing countries. In the next year or so we plan to open recruiting offices in the major Canadian cities."

Presently, CUSO fills 700 job requests a year, mainly for 'middle manpower'—science and mathematics graduates, teachers, engineers, technicians, nurses, and dentists.

Gerald Savory, director of the 1969 UBC CUSO orientation program and supervisor of UBC extension public affairs programs, disagrees with critics who say CUSO is selecting the wrong kind of person

UBC's Stake In CUSO

AS ONE OF THE THREE founding universities of CUSO and home of its Asian orientation program, UBC considers itself a vital member of CUSO. This explains in large measure why some UBC people are so sharply critical of the organization today.

UBC's interest in overseas service began in 1957 when John Young, BCom'49, MED'61, now principal of Campbell River Senior Secondary School, went to Sarawak to help set up a formal education system there. When he returned he interested two UBC undergraduates, Brian Marson, BA'62, MA'64, and Michael Clague, BA'63, in overseas service. In the fall of 1960 a committee of interested faculty and students headed by Dr. Cyril Belshaw, now UBC head of anthropology, formed the President's Committee on Overseas Service with the aim of establishing a Canadian Peace Corps. In February 1961, under the sponsorship of the National Commission for UNESCO, interested delegates from UBC, the University of Toronto and Laval University met in Ottawa to establish a national organization. Besides representation from the three universities there were also delegates from the Canadian Union of Students, the World University Service and the Student Christian Movement.

A constitution was prepared after this meeting and adopted at the founding meeting in June 1961 held at McGill University. UBC was represented by Dr. Belshaw and the AMS vice-president Eric Ricker.

During the summer of 1961, two home economists were sent overseas from UBC under the banner of CUSO after the Students' Council raised \$1,000 and a public appeal raised \$5,000. In the summer of 1962, six people went out from UBC to Sarawak, Ghana and Nigeria. Since then 200 UBC students have gone overseas with CUSO.

It was three years before CUSO realized that volunteers needed some sort of instruction before being sent to jobs overseas. In 1964 the job of teaching volunteers going to Asia was given to UBC. This summer 64 volunteers attended classes conducted mainly by Asian students studying at UBC. Thirty-three volunteers later went to Thailand, 13 to India and 18 to Malaysia. Crash courses in Hindi, Thai and the Malay languages were given the students as well as classes in "sensitivity training"—a mixture of role-playing and discussions of religion and culture where volunteers learned how to avoid insulting the beliefs and culture of the people they would meet.

With this year's volunteers, the motives for joining CUSO were, as one might expect, as varied as their personalities.

One recent graduate doctor said that he and his wife had been thinking of joining CUSO since 1963. "CUSO will give me two years experience medically and I can help," he said.

He and his wife have been posted to Samanggang, Sarawak, a four-hour drive by Land Rover from the capital city of Kuching. They are expecting their first child this winter. His wife will teach science and mathematics.

"We're really going just to fill a gap," said one girl. "In some countries 70 per cent of the skilled jobs are held by ex-patriots. The developing countries want us only until they can provide their own educated people. Anyway, what we'll do in terms of service is miniscule—we won't change much and missionary zeal definitely isn't wanted. I'm going to fill a job."

Another volunteer said simply, "I'm going because I have a rather dull family." □

as a volunteer. "We're definitely not selecting people," he said, "whose image is everything we typify as the North American ethic—materialism, success, and to hell with service to mankind. The kids we're getting are kids who among other things are willing to question North American ideals."

Robert Sallery agrees. "If someone comes out of Canadian society who is really kind of fuzzy wuzzy, who doesn't have any idea of security, who has personal hangups, who wants to get away from it all, Sarawak is hardly the place to go," he said. "So we have to screen thoroughly, by peer references, work references, academic records, interviews. There are a lot of paper revolutionaries in Canada who would say CUSO is just another Canadian Establishment organization. Anyone who knows about the tremendous revolution facing countries like Tanzania where CUSO is working, knows our volunteers aren't a status quo group."

Within CUSO there are also questions about the financial support the organization gets from the federal government. Canadian external aid amounts to one per cent of the Gross National Product. According to a CUSO spokesman the government contribution to CUSO accounts for less than one percent of the external aid budget. At present, 90 per cent of the CUSO budget comes in the form of a per capita volunteer grant from the Canadian International Development Agency. The rest comes from private contributions including a large amount from Canadian university alumni.

Mrs. Roberts feels that UBC alumni should be made aware of the type of organization CUSO is becoming and think seriously before contributing. She explained that the per capita grant means that CUSO must fill a certain quota of jobs every year in order to get enough money to maintain the large national and overseas staff. This puts pressure on local university committees which select candidates across Canada. For instance, at the beginning of this year selection committees were asked by the Ottawa office not to encourage BA graduates. By May the volunteer quota still had not been reached and Ottawa reversed its decision. The result was that UBC local committee members felt

they were forced to select volunteers they had originally rejected. According to one committee member the Caribbean is well-known to CUSO people as a place where people who can't be placed elsewhere are given assignments. He said that last year 50 per cent of the volunteers who went to Jamaica came back because "they just weren't carefully selected".

Another concern regarding the financing of the organization is that as the gap between private and public contribution widens, CUSO will become increasingly more dependent upon the federal government for money and in danger of becoming financially and politically committed to Canada's foreign policy. The critics of the present CUSO operation believe the organization can be more effective if it remains independent.

One UBC committee member pointed out that CUSO withdrew volunteers from Biafra two days before the start of the civil war there but will send volunteers to central Nigeria next year. He claims that the excuse of physical danger in Biafra is invalid because Nigeria is



CUSO volunteer Mrs. Janet Roberts, BA'66 (centre), enjoys a moment of musical relaxation with her class in Ghana.

at war also. He said, "I think a lot of CUSO people feel betrayed by this. We were previously politically independent and we didn't play the old political games but now it seems as if we are."

There isn't much hope that CUSO's problems will be solved to everyone's satisfaction. The national office, which rules CUSO, appears jealous of the authority held by the local committees and impatient with

criticism coming from university faculty and students. If plans to open recruiting offices in major cities are realized within the next few years it could be that CUSO will disappear from the Canadian university scene altogether. What probably will happen then is that CUSO, for better or worse, will be left to run a mammoth job-finding agency as part of Canada's external aid program. □

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Silent In The Face Of Atrocity

UBC book examines the Churches under Hitler

A FEW YEARS AGO a storm of controversy was touched off by German playwright Rolf Hochhuth's play, *The Deputy*, which attacked Pope Pius XII for failing to help the Jews being persecuted under Hitler. From the intensity of protest from church authorities in Germany, the Vatican and elsewhere, it was clear that the play had touched on a raw nerve. The churchmen (Protestant as well as Catholic) had every reason to be sensitive about the role their respective churches played in Nazi Germany.

The blunt truth is, as UBC history professor Dr. John Conway makes clear in his new book, *The Nazi Persecution of the Churches*, that both wings of the Christian church failed in general to stand up for their faith or for the sanctity of human life during that dark era. Dr. Conway details how and why the churches failed in their mission. He focusses particularly on the policies followed by the Nazi regime in its attack on the churches, which was carried out on three fronts. First, the Nazis sought to expand their administrative control of church affairs to bring the German Evangelical Church and the Roman Catholic Church under the authority of the State. Secondly, they maintained an intensive ideological struggle aimed at establishing a new Hitlerian cult to replace Christianity. And finally, the Nazis resorted to their old standbys of terror and intimidation. By the end of the war the Nazis had achieved much of their goal of eliminating the Christian Church as an influence.

Despite the danger, however, there were some Protestant and Catholic clergy who did speak out against what was happening. But they were a tiny minority. The majority were silent. Many, such as the "German Christians", actively supported the Nazi policies. The attempted extermination of the Jews, the Nazi acts of aggression, the brutalities in occupied countries

—all of these failed to elicit resistance or protests from church leaders

And the moral failure of the churches was not due, as Dr. Conway reveals, merely to Nazi oppression; it went deeper. It stemmed from a combination of the German churches' historic tendency to pietism, their Lutheran tradition of obedience to the State, their political conservatism—and a measure of political opportunism, and cowardice.

Dr. Conway does not mince words as to where the blame must lie. Of the churches, he says: "Humanly speaking, their leaders by

collaborating with the Nazis, were no more and no less guilty than the rest of their fellow countrymen. But, as custodians of the Christian Gospel, their conduct must be judged by different standards. Their readiness to allow the truths of the Christian faith to be distorted for the purposes of political expediency, and their failure to denounce the crimes so openly committed in their society, place a heavy burden of guilt upon them."

The Nazi Persecution of the Churches, by J. S. Conway, Basic Books, New York, \$10.00

Signposts Spell History

WHAT'S IN A NAME? An awful lot of history when it comes to place names in British Columbia. That's what one learns on reading, *1001 British Columbia Place Names*, a delightful book recently published in Vancouver by Discovery Press. The book is the result of collaboration by UBC English professor Dr. G. P. V. Akrigg and his wife, Helen, who lectures in geography at UBC.

The book contains an alphabetical directory of B.C. place names with descriptions of what they mean or how they were named. As the authors note in their introductory essay the place names spell out B.C.'s history . . . the contributions of the Indians, Spanish and British explorers, the great fur companies, the railway, the gold rush.

The book contains such fascinating footnotes to history as: "BLIGH ISLAND. This island in Nootka Sound is named after Captain Bligh of *Mutiny on the Bounty* fame. William Bligh was master of H.M.S. *Resolution* on Captain Cook's third expedition, and so visited Nootka with him in 1778."

It clears up puzzles: "KICKING HORSE PASS. Commemorates the fact that in August 1859 Dr. (later Sir) James Hector, geologist with the Palliser expedition, was here kicked in the chest by one of his packhorses and sustained a nasty injury." It reveals the lightheartedness of our history as, for example: "LULU ISLAND. Named by Colonel Moody in 1862 after Miss Lulu Sweet, a young actress in the first theatrical company to visit British Columbia." And the book resolves academic controversies: "LAC La HACHE. Scholarly opinion does not support the starvation thesis of Barry Mather, M.P., that the 'lake derived its name from the sudden death of a French-Canadian who lacked hash too often.' It is more likely that some voyageur lost his axe in this lake."

1001 British Columbia Place Names is a book that will be enjoyed by anyone interested in B.C. history.

1001 British Columbia Place Names by G. P. V. Akrigg & Helen B. Akrigg. Discovery Press, P.O. Box 6295, Postal Station C. Vancouver 10, \$5.70. □

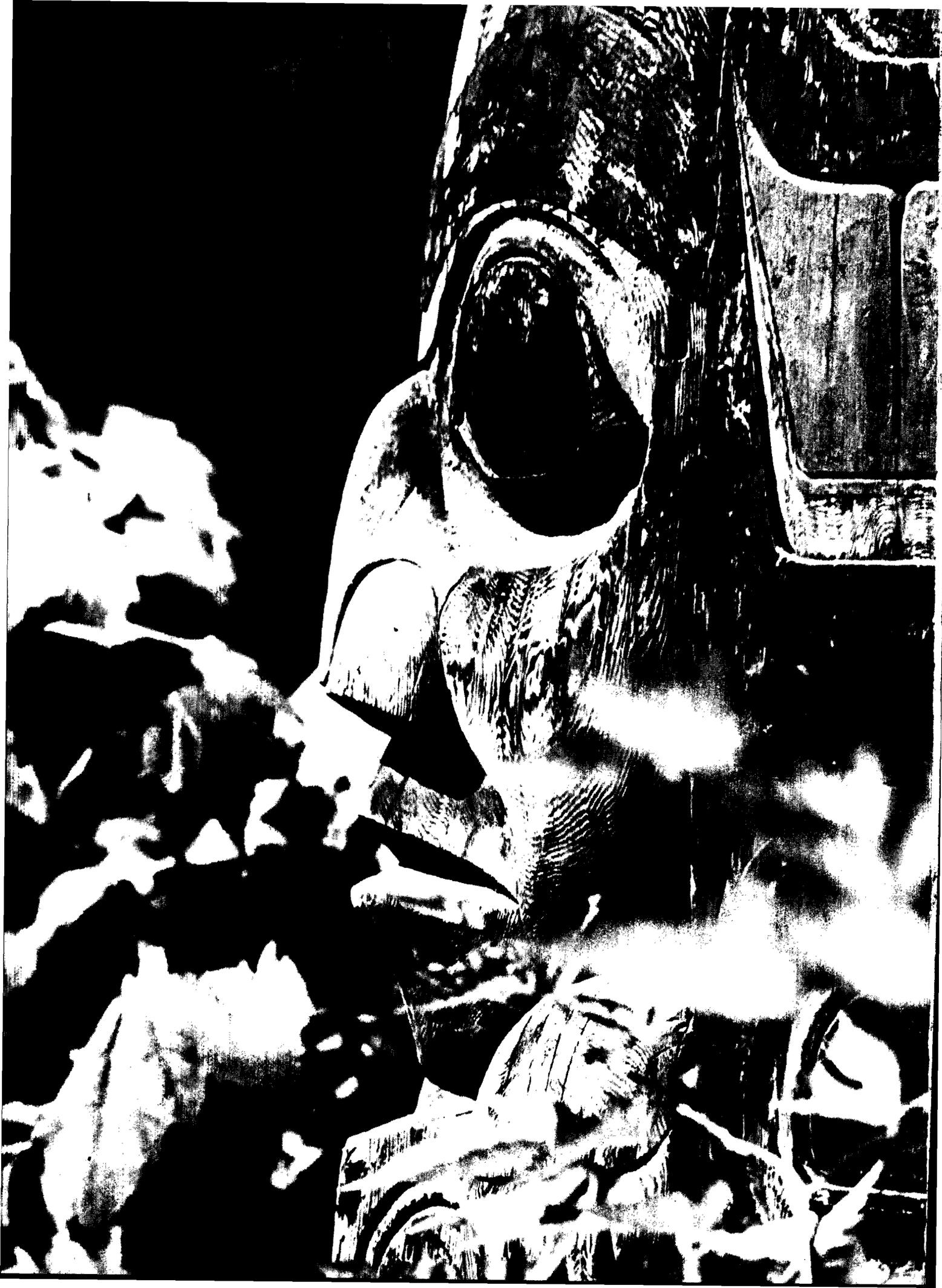
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Indian Culture On Campus

The tall totem poles stand brooding
in the trees. A raven with human hands
and arms stares coldly through the
leaves. A great beaver flashes huge
teeth . . .



Two powerful Thunderbirds stand guard over remains of a dwelling house. Overhead, an eagle glowers down from its perch . . .





This is Totem Park, the small tree-shrouded corner of UBC that is preserving a slice of Indian culture. In it stands a majestic collection of Kwakiutl and Haida totem poles, a Haida dwelling house and grave-house—all authentically restored or duplicated by noted Indian carvers Mungo Martin, Bill Reid, and Douglas Cranmer . . .

It is a natural setting . . . and in it the totem poles seem to project some of the Indian people's traditional closeness with nature. And there is a brooding, mysterious quality to these carvings, with their entwined animal-human features. It's like stepping inside an Emily Carr painting . . .

This sense of experiencing Indian culture explains part of the popularity of Totem Park with UBC visitors. □



Academic Hopes And Grim Realities

Highlights from the Beyond 69 Conference

IN THE CONTINUING public discussion of B.C. university problems there have been many grim realities disclosed. But one of the gloomiest was made this spring by UBC Deputy President William Armstrong in an address to *Beyond '69*, the UBC Alumni Association conference on higher education. Dean Armstrong said: "This province in general has done a very good job of progressively planning the development and financing of its rail system, its ferry system, its power system and even some aspects of its resource development. I see little evidence of similar planning in the educational system. There really is no plan for the development of the total educational system in the province."

This was just one of many disturbing bits of news received by the 100-odd people attending the one-day conference, held June 14, in Totem Park Residences. And this one fact seemed to lie at the root of so many of the problems discussed at the meeting. The conference was designed to acquaint the broader community with the facts about university finance and planning today and to equip key alumni with an informational background to actively support the cause of higher education in their communities.

The conference used, as a basis for discussion, a 20-page factual document on university finance and planning entitled, *Academic Goals and Financial Realities*. The booklet is a combination of information and data drawn from university sources and public documents. It too disclosed some grim realities about the university picture.

One of these was that UBC is more crowded than many other leading Canadian universities. For every fulltime student, UBC has 115 square feet of useable space, whereas the University of Alberta has 148 and the University of Toronto 156 square feet. This situation is attributed to a shortage of capital financing. And here the booklet reveals that Ontario and Alberta annually provide more than twice the capital money for universities as does B.C. For 1969-70 the per capita grant to universities in B.C. is \$7.27; in Alberta it is \$19.85 and in Ontario it is \$13.65.

The booklet also notes that the operating grants to the university are not adequate and are also behind those provided universities in Ontario and Alberta. For universities in B.C. the 1969-70 operating grant per capita is \$31.52, compared to \$43.26 for Alberta and \$33.66 for Ontario. It is, however,

admitted that the operating grant picture is not as serious as that of capital grants. But it is serious enough to have a detrimental effect on faculty-to-student ratios. The booklet, in fact, points out that UBC's ratio of 1:15 is too high for good university teaching and certainly higher than most other leading Canadian universities, the top ones having ratios of 1:10 or 1:11.

The conference speakers examined the implications of these facts. The highlights are contained on the following pages.

Dean William Armstrong Deputy president, UBC

IN RECENT MONTHS many members of faculty have spoken of limiting enrolment at UBC to 20,000, 22,000, 25,000 or 28,000 students. It's a bit of a lottery as to how you select these numbers. I would say that it's not feasible to limit enrolment even in the general courses at this university unless alternative facilities are available elsewhere. It is almost irresponsible, I think, to limit enrolment in disciplines which are available only at UBC at the present time.

The best predictions at the moment suggest that in September we will have over 21,500 students on this campus. And in about four years we could have about 30,000 students. Despite any plans or projections for new universities and new colleges, that figure will probably change very little. The time available simply does not permit construction of major facilities or major planning, so many of our problems in planning this campus are really of a short range nature to take care of something like 30,000 students by 1973.

Now to look for a moment at this business of space use efficiency. We like universities to have a degree of flexibility in space use that permits holding unscheduled classes, tutorials, seminar groups at times when students and teaching staff wish to do this. However, this is really not feasible at the present time and I hesitate to say it but we're carrying out detailed space inventories on a continuing basis. We feel that more and more classes must be rigidly scheduled to make the most efficient use of space. In many ways this goes against good educational practice but simply because of limitations of the past two years we have been using our new large computer facility to adjust time-tables from the Monday, Wednesday, Friday peak pressures on space and level these out. We probably will be able to cope with the undergraduate registration certainly in this coming September and possibly for the 1970-71 academic year in lecture rooms and undergraduate laboratories. However, as of September this year, we simply have run out of offices for new faculty members and there are about 200 coming.

In an attempt to correct this to some degree, we're rushing the construction of temporary or prefabricated buildings to house the majority of the new faculty members and to provide some additional seminar and study space.

There really is no plan for the development of the total educational system in the province. This province in general has done a good job of progressively planning the development and financing of its rail system, its ferry system, its power system and even some aspects

of its resource development. I see little evidence, frankly, of similar planning in the educational system. This makes our campus planning an extremely difficult, tenuous sort of operation.

Ontario has developed a formula for capital grants which will be used I think, this year for the first time. If we apply the same formula to UBC we should receive approximately \$12 to \$14 million per year for construction of buildings to accommodate our increasing enrolment. In addition, we must soon replace 600,000 square feet of temporary buildings, such as the old arts building which has now become a mathematics building and in addition to that, 300,000 square feet of huts. It appears the capital needs of this campus alone will be in the order of \$21 million a year for about five years. We're realists and we realize that this is a most unlikely degree of affluence and we must seek alternatives.

We can and we must somehow reduce the cost of academic buildings. It is doubtful that we can achieve major reductions in the cost of heavily serviced buildings for undergraduate and research laboratories. Our costs in that case are similar to those in other parts of the country and are now costing us \$30, and I think very soon, \$40 a square foot of gross area. But of this, at least \$15 is for the services alone, and the building structure cost is about \$20 a square foot so that the service share is so high I don't think there's a great deal we can do to reduce the cost of that type of building.

We can, however, make substantial savings by the use of modular and partially prefabricated buildings for offices, seminar rooms, many types of classrooms. They can be perfectly satisfactory for any educational process other than ones requiring highly serviced laboratory facilities. Such space can be designed in a flexible manner to allow modification for changing academic needs. This lower cost space can be built for around \$16 a square foot—a substantial saving.

It may well be that a fair share of our capital resources will have to be put into these lower cost buildings simply to stem the tide or at least cope with it in this short period ahead of us.



Dr. Walter Gage
President, UBC

THE EASIEST THING in the world is to demand a larger share of the provincial revenue but I am sure these revenues are not limitless. It is clear that in determining its expenditures any government must be concerned with its priorities. If these priorities do not adequately represent higher education, then I believe the public is not sufficiently informed about the need for higher education. Some time ago, in The Province there was an article, I think by Paddy Sherman, in which he stated what the university would have to do in future was in a sense justify itself; it would have to show that it had a place in the economic, social and cultural development of the province. It is, in my opinion, partly the fault of the faculty and administration and the alumni and students that we have not shown that we are truly a necessary part of any development.

Well, this is where you come into the picture. The purpose of this conference should be to provide the necessary information for those here today who believe that the cause of higher education requires greater support, so they in turn can convince their community of the urgent need for a higher priority.

Dr. John Macdonald

Executive vice-chairman Committee of Presidents of the Universities of Ontario

I WANT TO TELL YOU SOMETHING about what is happening in another jurisdiction in Canada for whatever value it may be to you in making judgements about where you will be moving in the years ahead in this province. The present population of Ontario is about 7.4 million and it's roughly now 2 million here in British Columbia so that gives you the order of difference in looking at the two provinces. The enrolment in 1964 in Ontario universities was 49,000 and now in 1969 it's about 100,000.

The operating grants to the universities from the provincial government in 1964 were \$37 million and that has been raised in a period of five years to the staggering level of \$215 million. If you add to that fees, you get over one-quarter of a billion dollars by way of operating support for the universities in Ontario this year. Capital support was \$64 million in 1964; by 1967 it was up to \$100 million; it is \$100 million in 1969 and there is a commitment by the province of Ontario for at least \$100 million a year up to 1975. The growth has been very rapid, both in terms of enrolment, the number of institutions and also in terms of support provided by the government of Ontario.

In 1964, the government of On-

tario took a step which has never been taken in any other province in Canada when they established a Department of University Affairs. It was to parallel the Department of Education but was to be responsible solely and exclusively for universities.

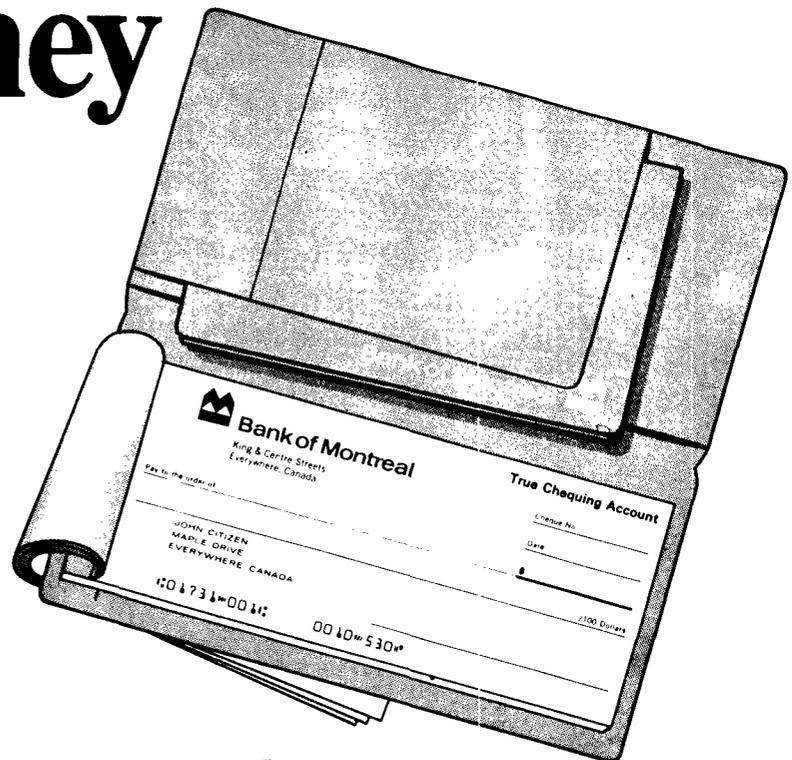
Along with the department the government established in 1964 a Committee on University Affairs. That Committee was established, "To study matters concerning the establishment, development, operation, expansion and financing of universities in Ontario and to make recommendations thereon to the Minister of University Affairs for the information and advice of government." It has eleven members, four of them are chosen from

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the university community directly, that is faculty members or administrators in universities. No presidents serve on it.

It was established ostensibly to be an instrument interposed between the university and government which would try to make independent judgements. But in fact it has not performed in that way. It has become more and more polarized toward the interests of government.

What I have been describing so far is what the government's instrumentation is for dealing with the universities but the universities themselves have had to develop machinery for dealing collectively with government. This started in 1962 with a Committee of Presidents, in which they began to explore the possibility of cooperative action. The organization has become rapidly more and more complex. There are a number of affiliated groups associated with the Commit-

tee of Presidents now and the organization has been recognized by the government as the spokesman for all the universities.

But the presidents and the staff have been unhappy lately about the quality of analysis which has been possible with the organization from the standpoint of its capacity to put forward proposals and argument to government for the kind of support needed. This has been because the analytical function has been done on a part-time basis by committees from the various universities.

What's being proposed at the moment, and under consideration by the senates of all the universities, is a proposal to establish a Council of Universities. The purpose of the council would be to replace the Committee of Presidents, to maintain a maximum of independence for each university, to provide a collective voice which was both acceptable and functional in terms of the

kind of data and arguments which could be put forward to governments and finally, of course, to prove an expert analytical capacity. The council, at the top, would be a body composed of the president of each university and a colleague elected by the senate of each university. That colleague could be a faculty member, an administrator or a student at the choice of the individual university. Under the council there would be a series of program committees—one in arts and science, one in health sciences, one in the other professions and one in graduate studies.

Now what are the kinds of issues which the structure would deal with? First of all operating grants. Each year the universities must argue for the value of the basic income unit in the financing formula and that argument must be put forward on the basis of the collective experience of 14 universities. The same thing applies to capital. There's also the problem of coordinated program development in order to avoid unnecessary duplication.

Now this may sound to you like a University of Ontario, but I would like to emphasize that in fact it is not anything like a University of Ontario in the sense of any jurisdiction of which I have knowledge. What we're talking about is a federated system where the universities voluntarily agree to operate cooperatively, where they must exercise self-control and where the restraints which they place on themselves are the governing factors.

This is an idea which has profound significance for the future of higher education in Ontario. Some people think and I believe, naively, that if it doesn't work we would get the University of Ontario. I do not believe the alternative would be the University of Ontario, but rather, an insidious and gradual takeover of the universities by government instruments which already exist. I am convinced that there is only one key to preserving the independence of the universities and that is a superb system of data collection and analysis with an acceptable collective voice.

What we are doing is unique and if we are successful, we will not only serve our own province well, but we will offer a new and better model for others to emulate.



Andrew Soles

Principal, Selkirk College

AS ONE WHO is deeply committed to the college idea I can only deplore the fact that so many of our new colleges are having to begin their careers in high schools or renovated buildings. Colleges need first-rate libraries and first-rate laboratories, but most of all they need an identity of their own and the whole college movement I think is being threatened by this unfortunate state of affairs. Our experience today would indicate that with few exceptions, local districts are not prepared to vote money for needed college facilities. Now if the colleges are going to be considered a vitally important part of the total system of higher education then these facilities are going to have to be provided on a broader tax base.



John Young

Principal, Campbell River Secondary School

UNIVERSITY EDUCATION is a right and it should be provided to all those who can benefit from it and there should be no financial barrier at all. Canada is the second or third most affluent nation in the world and it's a damnable admission for we as Canadian citizens to suggest that we can't afford to educate all our children. I think our social priorities are seriously out of harmony with the needs of people. Last year, in the public school system in B.C. we spent about \$533 per child. That amounts to about 2½ bucks a day. You can't hire a good babysitter for 2½ bucks a day and I do not buy the idea that we cannot afford a far better educational system in this province.



Dr. Cyril Belshaw

Professor and Chairman
Department of
Anthropology and
Sociology, UBC

THERE IS THE POSSIBILITY of changing the nature of UBC so that in effect it becomes, not one university, but several and yet retains the sense of cosmopolitan and metropolitan atmosphere that really is important.

We have the chance of creating out of our present, existing elements at UBC, three nuclei for three new

universities but in close proximity, reinforcing and stimulating one another.

We're suggesting that the university should consist essentially of a confederation of relatively small-scale colleges, perhaps with an average size of 1,500 to 2,500 students each with its own independent educational goal. There would then be potentiality for variety, for experiment, for change. This potentiality for variety or experiment I feel is most important for the future of UBC.



Dean Goard

Principal, B.C. Institute
of Technology

I THINK it is a good thing that we increase the variety of offerings to young people and mature adults in the field of tertiary education because people have many needs and abilities. In the past 20 years there have been about 18,000 to 20,000 people involved in higher

education outside the traditional academic stream and this has gone on, I think, totally unnoticed. I think that we must accept the proposition that higher education is no longer restricted to universities; higher education represents a great range of very academic and very rigorous and very useful programs covering a wide spectrum of services. A great number of people who would otherwise be going to university are accepting this alternative path and I think that's a good thing. □



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Stamps Sign Of Success

EVERY DAY BRINGS PLEASANT new surprises for Ian Malcolm and his band of co-workers in the Alumni Fund office. Malcolm, who is director of the fund, gets a daily batch of letters from all over the world—each with a colorful new stamp. And each adds another bright patch to his growing montage of stamps on his office wall. It's a sort of philatelic tour of the world, with stamps from Ghana, Iran, New Zealand, Malaysia, Singapore, Japan and other far away places.

To Malcolm the montage is a tangible sign of success. The letters the postman brings every day are from alumni making donations to the Alumni Fund. And the gifts have been flowing in at an encouraging rate, from grads in Canada as well as those elsewhere in the world. "The campaign is coming along very nicely," said Murray McKenzie, Alumni Fund chairman for 1969. "We seem to have more new donors and many donors who had dropped out seem to be contributing again. The results are encouraging but we have yet to hear from many 1968 donors—and we're going to need their help to make our target."

The target for the 1969 Alumni Fund campaign is \$250,000. Total donations to date amount to \$176,000. Of this figure, \$93,000 represents direct gifts from alumni and the remainder represents alumni contributions to the Three Universities Capital Fund and other gifts. The campaign is now at the halfway point.

The special contingency fund set up in 1968 under the Alumni Fund is rapidly developing into a most successful scheme for aiding students and faculty. The contingency fund was supported this year with a \$5,000 allocation and half of it has already been granted to help 12 student projects. The scheme is designed to give quick assistance to worthy student and faculty projects.

Chronicle Wins Editorial Award

THE CHRONICLE has been awarded first place for editorial content in a competition among North American alumni magazines. The award was made by judges of the American Alumni Council in a conference held in New York, July 21-25. The award was for one of several categories in the competition, open annually to publications of 400 North American university alumni organizations.

"I am extremely pleased to see that the *Chronicle* has been recognized in this way," commented Jack Stathers, executive director of the UBC Alumni Association. "This award reflects the good, hard work of our editorial staff and the outstanding support they have received from our alumni editorial committee. The *Chronicle* obviously is presenting a lively and interesting selection of material for our alumni readers."

Published four times a year, the *Chronicle* now is sent to 42,000 alumni each issue.

Missing Your Alumni Mail?

A QUESTION that the alumni office often hears is from female alumni who want to know why they never get any mail from UBC, while their husbands, also grads, do? We suspect that our computer is against marriage and is unable to bring itself to print-out Mr. and Mrs. . . . Actually programming adjustments are being planned for the near future to allow for joint addressing in the case of both husband and wife being graduates.

If you are receiving mail that is incorrectly addressed or if you're planning a move, the records department would appreciate knowing. . . . The Records Department, UBC Alumni Association, 6251 N.W. Marine Drive, Vancouver 8, B.C.



Football 1969

THE FOOTBALL SEASON is here and Coach Frank Gnuip is predicting some exciting action for Thunderbird fans. All home games will be played at Thunderbird Stadium starting at 2 p.m., except the Simon Fraser University-UBC game which will be at Empire Stadium beginning at 8 p.m.

Sept. 20	College of Idaho at UBC
27	UBC at Willamette University
Oct. 4	Seattle Cavaliers at UBC
11	Portland State at UBC
20	SFU at UBC (Empire Stadium)
25	UBC at Western State
Nov. 1	Pacific University at UBC
8	University of Alberta at UBC



Take A Trip Down Memory Lane

October 24 - 25.

Reunion Days '69

Relive Memories of Your Alma Mater on Reunion Weekend

Memory Lane, a photographic exhibit telling the story of UBC from 1919 to 1969, will highlight Reunion Weekend. So come on out and take a stroll down *Memory Lane*. And linger a while to join in the other festivities.

Guest of Honor:

President Walter Gage, BA '25,
MA '26, LLD '58

October 24

Family sports jamboree
Men's golf tournament
Special interest reunions

October 25

Rugby game—University
of Victoria - UBC

Reunions—classes of 1924, '29,
'34, '39, '44, '49, '54, '59

President's reception—in honor
of the class of 1919
Great Trek Ball

Further information: UBC Alumni Association, 6251 N.W. Marine Dr. Vancouver 8, B.C. (228-3313)

Full Program For Branches

THE OTTAWA BRANCH of the alumni association has come up with a solution to its perennial problem of a very mobile membership—they are going to have two people fill each position on their executive. The new officers will be announced at the football party being planned in conjunction with a B.C. Lions-Ottawa Roughriders game in the early autumn. Program plans for the fall and winter include social activities, guest speakers and service projects—details will be available at the football party.

California alumni are planning interesting events for the coming months. There is even some talk of a charter flight to Vancouver at reunion time or Christmas (for further information on this project contact the alumni office). A mid-October gathering is planned for the San Francisco area—probably cocktails and dinner. The Los Angeles group, which held a successful beer and barbecue party in July, at the home of Dr. William Patrick, BA '48, MA'52, will meet for their annual reunion dinner on October 18. The Alumni office will be sending out details when they are finalized. □



Meredith Smith/UBC Graphic Arts

It's suds and socializing time for some of the 1,000 members of the Young Alumni Club, now in its third successful season.

Students To Spread Education Gospel

STUDENTS AND ALUMNI are making plans for a new fall program to spread the gospel of higher education in B.C. Under chairman Susan Shaw, a fourth year education student, the annual high school visitation program has been expanded to include meetings with public groups, service organizations, alumni branches as well as the high school visits. Teams of five students will

visit a minimum of six major areas of the B.C. mainland in October and early November. The students hope to speak to as many sections of the community as possible about UBC and the problems of higher education in B.C. UBC alumni will be accompanying the teams on their visits and local alumni will be providing billets.

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Spotlight

Meredith Smith/UBC Graphic Arts



Familiarizing themselves with radical look of Expo 70's B.C. Pavilion are Pamela Mahoney (left) and Diana Timms (right), two of the hostesses.

HA VE A YEN TO SEE EXPO 70? There will be some familiar faces at the Fair. Two of the hostesses at the B.C. pavilion (designed by **Barclay McLeod**, BArch'61), will be **Pamela Mahoney**, BEd'67 and **Diana Timms**, BA'66. There were 5,000 applications for positions in the Canadian pavilion—**Sonja Arntzen**, BEd'68 was one of the 37 chosen. B.C. commissioner to Expo 70, **John Southworth**, BA'53, and **Mrs. Southworth**, BA'52, BSW'53 (Sheila R. Cope), will be living in Osaka for the year of the Fair. The UBC Alumni charter flight to Japan can save you lots of Yen to spend at the Fair . . . further details to be found on page 35 . . . and there's still plenty of time to sign up for an instant Japanese course at night school . . .

1920's

Fred F. McKenzie, BSA'21, AM(Missouri), DSc (Catholic University, Chili), who is currently dean of agriculture at the University of Ife, Nigeria, will be returning to his home in Corvallis, Oregon at the end of September. Since his retirement in 1960 as head of the department of animal husbandry at Oregon State he has served on educational-aid programs in Indonesia, Peru and on the University of Wisconsin-U.S. AID program in Nigeria. . . . A career of service to Canadian agriculture by **Gordon L. Landon**, BSA'23 was honored at the annual meeting of the Agricultural

Institute of Canada. He was made an honorary life member in the Canadian Society for Rural Extension. Mr. Landon was with the B.C. department of agriculture for nearly 40 years before retiring in 1965. One of his recent projects was chairmanship of the committee working on a 50-year history of the UBC Faculty of Agriculture. . . . Following a two year assignment with the United Nations development program in the Philippines, **Carl Tolman**, BA'24, MSc, PhD (Yale), DSc(Missouri), has returned to the faculty at Washington University. Since joining the faculty in 1927 he has held positions ranging from assistant professor, to dean of graduate studies in arts and science, to chancellor of the university. In recognition of his long service he was awarded an honorary degree—doctor of science—at the June congregation. . . . The Citizenship Council of Canada has named **Robert W. Keyserlingk**, BA'29, as one of 1969's Outstanding Citizens. Mr. Keyserlingk is president of Palm Publishers in Montreal and currently head of the Canadian Association of the Order of Malta, an international charitable organization.

1930's

. . . **Muriel A. Cunliffe**, BA'31, BSW '48, MA(Smith) retired in June as professor of social work at UBC. She began her career teaching in elementary and secondary schools and during the

Second World War served with the WRENS. Before joining the UBC faculty in 1950 she was with the B.C. department of social welfare. Her activities in social welfare have been both local and international as she has been involved with United Nations' projects in Africa and Britain. In B.C. she is a member of the board of the Children's Foundation and an active member of the Canadian Mental Health Association.

. . . **Louis T. Rader**, BASc'33, MAsc, PhD(Cal Tech) has now joined the academic world full-time as chairman of the department of engineering at the University of Virginia. He will be a professor of both electrical engineering and business administration. The combination will take advantage of his wide experience with the General Electric Company, where he was vice-president and general manager of their communications and control division and as president of the Univac division of Sperry Rand Corp. Dr. Rader has been active in the education field for many years and is currently serving on the boards of several colleges and institutes. Last year he was elected as a director of FDUCOM, the inter-university communications council.

UBC forestry professor, **Robert W. Wellwood**, BASc'35, PhD(Duke) is the first Canadian to be elected to the executive of the Forest Products Research Society. He was a charter member of the society, which has members from 50 countries. **Robert M. Hayman**, BA'39, plans to indulge in lots of fishing and hunting now that he is living in Fort Nelson, B.C. He recently opened a law office in that city—its first in eight years—after spending 12 years with a Vancouver firm.

1940's

Frank S. Mathews, BA'44, MA'48, PhD (Oregon), is now professor of physics at the Colorado School of Mines. A member of the faculty since 1954, he is currently working on research into what happens to earth materials under the conditions found in volcanos—high pressure and high temperature.

William R. Clerihue, BCom'47, has been named vice-president and treasurer for the Celanese Corporation in New York. Previously he was with the Canadian subsidiary, Chemcell . . . **Ernest T. Rice**, BA'47 PhD(Iowa) has joined the educational research centre at Clarion State College, Pennsylvania, as associate director for college services. He will also be an associate professor in the college's professional studies division.

Alan G. Fletcher, BASc'48, MSc(Cal Tech), PhD(Northwestern) has been appointed dean of engineering at the University of North Dakota. He will also

hold the post of professor of civil engineering. *The MacKay Years*—is the way the alumni magazine at the University of New Brunswick describes the 16-year term of **Colin B. MacKay**, BA(UNB), LLB'49, DCL(Mt. Allison), LLD(UNB, Laval) as president of the university. During the period that ended with his July retirement UNB experienced a period of rapid expansion with its undergraduate population growing from 700 to nearly 5,000 and its graduate students from 40 to 500. Dr. MacKay, who is a veteran of the Canadian Navy, has also served as a member of the Board of Broadcast Governors, as vice-chairman of the Canadian Centenary Council and on several boards of directors.



Dr. Colin B. Mackay



Gerrard E. Manning

1950's

It was one very long move—from one end of the country to the other—but **Dr. and Mrs. Albert R. Cox**, BA'50, MD '54, (Margaret Dobson, BA'50, MD'55) are now in St. John's, Newfoundland. Dr. Cox, who was associate professor of medicine at UBC, will have a key post in the new Faculty of Medicine at Memorial University as professor and chairman of the department of medicine. At UBC he specialized in research on heart disease and his work has been recognized by several large grants including a \$50,000

fellowship from the Canadian Life Assurance Association. . . . Sixty years of Canadian military history is reviewed in a new book, *The Seaforth Highlanders of Canada, 1919-1965*, by **Reginald H. Roy**, BA'50, MA'51, PhD(Washington). He is presently associate professor of military history at the University of Victoria. **Augustine H. Higuchi**, BSA'52, has been appointed administrative assistant in the department of student services with the board of education in North York, Ontario. During the last school year he was head of guidance at Georges Vanier Secondary School. **Mrs. Corinne Robertshaw**

Parkin, BA'54, LLB'58, is currently general manager of Brezina Nigeria Ltd., an engineering and contracting firm in Lagos. She has been with the company since January, 1968 and was made general manager earlier this year. . . . After two years in Ethiopia **Mr. and Mrs. William A. Padgham**, BAsc'55, MAsc'58 (Theresa A. James, BA'59) have returned to B.C. and are living in Campbell River. Bill, who was teaching geology at Haile Selassie University, is now a geologist with Western Mines.

The next time that your bags are missing and the file is overdone and you're flying with CPAir the person to write to is **Gerrard E. Manning**, BCom '56, the new vice-president for customer service. He has been with the company for 13 years and was previously director of industrial relations. . . . **James E. Currie**, BCom'57, is now at the University of Victoria as executive assistant to the president. Previously he was with the UBC commerce faculty as administrator of their continuing education program.

. . . . **Kenneth Edward Cox**, MAsc'59, PhD(Montana), has been promoted to associate professor in the chemical engineering department at the University of New Mexico. . . . **Mrs. Peter R. Koch**, BSN'59 (Penelope Ann

<p><i>Write or Phone</i></p> <p>THE UNIVERSITY BOOK STORE Vancouver 8, B.C. 228-2282</p> <p><i>whenever you need</i></p>	<p><i>Text</i></p> <p><i>Trade</i></p> <p><i>Medical</i></p> <p><i>Technical</i></p> <p><i>Hard Back</i></p> <p><i>Paper Back</i></p>
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Godfrey), has joined her husband, **Dr. Peter Koch**, BA'52, MD'57, in the medical profession following her graduation from the Temple University medical school in June. She was one of 10 students, out of a class of 130 named to the honor roll. She also received an award from the American Medical Women's Association for outstanding academic work and a special award for work in pediatrics. She will be interning at the Royal Victoria Hospital in Montreal.

1960's

Economist **John Anthony deWolf**, BA '60, is the new leader of the British Columbia Progressive Conservative Party. . . . Checking up on germs and things, **Dr. William R. Carpentier**, MD '61, was with the Apollo 11 astronauts during the three week quarantine following their trip to the moon. Somewhat less noteworthy was his recent election to membership in the Undersea Medical Society. . . If you were to chose an international star to play the lead in a major Shakspearean play who would it be? **Peter Snell**, BA'61, chose Charlton Heston for his production of *Julius Caesar* which is being filmed in Spain. This is his fifth movie and second Shakspearean production—in 1966 he filmed the Edinburgh Festival production of *The Winter's Tale* with Lawrence Harvey. His first film was a television documentary on Margot Fonteyn and Rudolf Nureyev.

Diana R. D. McColl, BEd'61, recently received her doctorate in education from the University of Oregon. During the coming year she will be on the faculty at Clarion State College, Pennsylvania, instructing in special education, specifically, in the teaching of mentally retarded pupils.

Donald J. Arnold, BPE'62, MS(San Francisco State) has been named the outstanding student in the graduate recreation program at Indiana University. For the coming school year he and his wife (Gwendolyn M. Amor, BEd'59), will both be teaching in the department of recreation and park administration. They expect to return to Canada when Don has finished his dissertation research. . . . Another doctoral candidate, **Gerald E. Dirks**, BA'62, MA (Queens), has spent the last year doing research at the National Archives in Ottawa. This fall he returns to Brock University where he is lecturing in political science. Gerry, who is totally blind, has recently been appointed to the national council of the Canadian National Institute for the Blind which is responsible for the institute's nation-wide programmes. . . . The Ford Foundation is financing studies of legal education at several American universities. **Robert L. Felix**, BA, JD (Cincinnati), MA'62, LLM (Harvard) is a member of the research group at the University of Southern Carolina, where he is a member of the law faculty. . . . **Robert A. Long**, BCom'62, presently at the University of Michigan, on leave

from the faculty at the University of Saskatchewan, was presented with a Seagram Business Faculty Award at the recent meeting of the Association of Canadian Schools of Business at York University. . . . **Mr. and Mrs. Brian Marson**, BA'62, MA'64, (Wendy Dobson, BSN'53) will be attending Harvard University for the next two years. Brian will be at the Kennedy school of government and Wendy at the school of public health. They have been living in Ottawa since their return from India as CUSO volunteers two years ago. In Ottawa Brian was in charge of the CUSO Asian program and Wendy was with the Canadian International Development Agency. **John M. Curtis**, BA'63, PhD(Harvard), an economist specializing in wages and prices research, has joined the staff of the International Monetary Fund in Washington, D.C. . . . The federal government commission on poverty has two UBC grads on its staff. **Michael J. Clague**, BA'63, and **G. Peter Penz**, BA '63, MA'69 are members of the research staff.

Richard T. Atkinson, BCom'64, received his MBA at the spring congregation of York University. **Mrs. Atkinson**, BHE'64 (Eileen Anderson) is teaching with the North York school board in Toronto. . . . **Gunter Schramm**, BA'64, PhD(Michigan) who has been teaching at the University of Manitoba has joined the faculty at the University of Michigan as assistant professor of resource economics. . . . A Pulitzer travel-

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Elizabeth J. Burrell

ling fellowship has been awarded to **William H. Willson**, BA'64, who attended the Columbia school of journalism last year. Currently he is in Hollywood producing educational television programs. He plans to make use of the fellowship next year. Following a year at Dalhousie University working on his master in education degree, **David A. Lynn**, BEd'65, has been appointed vice-principal at Vanier Jr. High School in Halifax. . . . **Gordon W. MacKenzie**, BSA'65, DVM(Saskatchewan) has returned to Williams Lake to open a veterinary clinic. Last June he was a member of the first graduating class from the new Western College of Veterinary Medicine at the University of Saskatchewan. . . . **Henry A. McKinnell**,

BCom'65, MA, PhD(Stanford) is now with the Brussels office of the American Standard Corp. One of his duties will be to act as 'trouble shooter' for the company's operations in several European countries, including Spain, Italy and France.

Nurudeen O. Adedipe, BSA'66, PhD '69, is now on the faculty of the botany department at the University of Guelph. . . . Residence director at the brand-new YWCA in Vancouver is **Elizabeth J. Burrell**, BA'66. She recently returned from a two-year term with CUSO, teaching school in Kenya, and she is now responsible for interviewing prospective residents, and setting up programmes for the 150-room residence wing.

Patricia Marsden, BA'67, has joined the staff of the department of industry, trade and commerce in Ottawa as a foreign service officer. During the last two years she has attended the College of Europe in Belgium, where she was granted a certificate in political science, and more recently she was working as assistant to the director of studies at the British Institute of Management in London.

MR. and MRS. **RICHARD S. COLE**, (Sheila Stuart, BA'58, BED'59), a daughter, Elizabeth Ann, February 18, 1969 in Menlo Park, California.

MR. and MRS. **PHILIP O. DOBSON**, BSF'62 MBA(Oregon), (Moyra DeWolfe, BSA'60, MSA'62), a son, Hamish DeWolfe, March 22, 1969 in Vancouver.

MR. and MRS. **ROBERT B. MANSFIELD**, BArch'62, (Lynne Rogers, BA'60, MSW'63), a daughter, Erica Lynne, May 10, 1968 in Calgary, Alberta.

MR. and MRS. **GLENDON P. MARSTON**, BASc'65, MASc'67, twins, a boy and a girl, June 25, 1969 in Boston, Mass.

DR. and MRS. **GORDON M. MACKENZIE**, BSA'65, DVM (Saskatchewan), a daughter, Dalerie Grace, June 20, 1969 in Burnaby, B.C.

MR. and MRS. **ROBERT L. PORTER**, BA'59, BSW'60, (Barri Ellen Worthington, BHE'60), twin sons, Aaron Thomas Jeffrey and William John Douglas, August 10, 1969 in Belleville, Ontario.

Marriages

ROBERTSON-CUNNING, John Adams Robertson to Peggy J. Cunning, BA'68, May 31, 1969 in Kamloops, B.C.

TURNER-CRAIG, Keith Turner, to Rosemary Ann Craig, BMus'66, July 5, 1969 at Shawnigan Lake, B.C.

WOOD-SKEITH, F.E. Allen Wood, BSc'64, MSC'66 to Linda Jeanne Skeith, BHE '64, April 5, 1969 in Vancouver.

Births

THE HONORABLE **S. RONALD BASFORD** and MRS. BASFORD, BA'55, LLB'56, (Madeleine Nelson Kirk, BHE'61), a son, Daniel Ronald, June 14, 1969 in Ottawa, Ontario.

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BARRATT-MACLAGAN. Christopher J. C. Barratt, BAsc'64 to Jane MacLagan, July 11, 1969 in Vancouver.

CURTIS-PEPALL. John M. Curtis, BA'63, PhD(Harvard) to Anne Mary Kathleen Pepall, June 14, 1969 in Westmount, Quebec.

RUSH-BATIUK. Clive Rush, BSc'65, BAsc (Oregon), MAsc(Cornell) to Carol Batiuk, BEd'68, July 12, 1969 in Trail, B.C.

WICKENS-SCOTT. Gordon Glen Wickens, BA'69 to Beverley Joan Scott, BA'68, June 5, 1969 in Vancouver.

An Apology:

To Ernest F. Wilks, BAsc'26 and Murray R. Euler, BCom'52 . . . we would like to assure the friends and classmates of both these grads that they are alive and well—contrary to the report in the June issue of the *CHRONICLE*—and living in Vancouver and Victoria, respectively.

Deaths

William James Andrew, BCom'35, May 29, 1969 in West Vancouver. He was secretary-manager of the Building Supply Dealers' Association and an active community worker as a director of the Junior Forest Wardens of B.C. and as a director of the International Order of Hoo Hoo. He is survived by his wife, daughter and son.

Dr. Theodore H. Boggs, BA(Acadia), MA, PhD(Yale), LLD'30, June 11, 1969 in Ladysmith, B.C. He was the first faculty member and chairman appointed to the economics department at UBC and was designated professor emeritus in 1957. His teaching career included terms at Yale, Dartmouth, Stanford and the University of California. He is survived by his son, Theodore R. Boggs, BA'29 and two grandchildren.

William N. Buckingham, BA'27, May 1969, in West Vancouver. Following graduation he articulated and practised law in Vancouver for 17 years before becoming a professional actor. His interest in the theatre began with the Players' Club at UBC and continued to the Vancouver Little Theatre and later professional appearances on radio, television and the stage. One of his best known roles was in the CBC Radio program 'The Carson Family' of which he was a member for 25 years. Between 1945 and 1960 he was associated with Theatre Under The Stars as an actor and director and later as general manager. He is survived by his wife, son and sister.

Fred Theodore Collins, BAsc'38, June 1969 in Vancouver. Following graduation he joined the B.C. Electric Co. and held several positions in that company and its successor, the B.C. Hydro. In 1960 he was made superintendent of all Hydro generating plants on the Lower Mainland. He was a member of the B.C. Professional Engineers' Association and a senior member of the American In-



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Mrs. A. S. Kancs, P.C.T., G.C.T.
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stitute of Electrical Engineers. He is survived by his wife, son, and two daughters.

Rev. Father John Brooks Costello, BCom'39, May 11, 1969 in Spokane, Washington. He entered the Society of Jesus in 1941 and was ordained in 1954. After teaching for several years he was appointed chaplain to Sacred Heart Hospital in Spokane. He is survived by his parents and sister, Mrs. Gordon Calderhead, BA'43 (Joan Costello).

Mrs. James Curr, BA'33 (Murial Audrey Reid); **Mabel Agnes Hind**, BEd'60; **Mrs. Ruth Schwarze Russell**, BEd'60. August 1, 1969 in Tanzania, Africa. They were members of a group of B.C. teachers on holiday in Africa. The bus in which they were travelling left the road, killing eight of the 16 passengers. Mrs. Curr, survived by her husband, James Curr, BA'35, mother and sister and Miss Hind, survived by two aunts, were teachers with the Vancouver School Board. Mrs. Russell taught in the Nanaimo school district and is survived by a sister.

Russell Edwards, LLB'65, accidentally July 1, 1969 in Cranbrook, B.C. He served for eight years with the Royal Canadian Air Force as a pilot and instructor before attending UBC. Following graduation he established a law practise in Cranbrook. He is survived by his wife and four children.

Auke Johan Hondema, BArch'63, May 1969 in Calgary, Alberta. He was an architect with the Calgary School Board and is survived by his sister.

Mary Isabel Irwin, BA'38, December 1968 in North Vancouver.

John Joseph Elliot Mahoney, BA(Toronto), LLB'50, June 14, 1969 in Vancouver.

Audrey Jean Orchard, BA'50, April 17, 1969 in Santa Monica, California. She is survived by her parents.

Eric Richard L. Ould, BASc'64, accidentally August 16, 1968, near Calgary, Alberta. He is survived by his parents.

James Murray Putman, MSW'47, LLB'66, April 20, 1969 in Vancouver.

Frank Fenner Rush, BCom'35, May 29, 1969 in Vancouver. He was president of Pacific Leasing Corp., having joined the company in 1962 after 25 years with MacMillan Bloedel Ltd. During the Second World War he served as a captain with the Irish Fusiliers. He is survived by his wife, son, two daughters, his mother, three brothers and a sister.

Albert Brian Thompson, BEd'47, May 1969 in New Westminster, B.C. For over 40 years he was associated with the B.C. school system as a teacher, principal and most recently as a special counsellor and director of tests and measurements for the Abbotsford School District. His numerous community activities included work with the Retarded Children's Association, the Big Brothers, and the Matsqui, Sumas and Abbotsford community centre. He was a past president of the Abbotsford Rotary Club and had also held office in the B.C. Teachers' Federation. He is survived by his wife, two daughters and five grandchildren. □

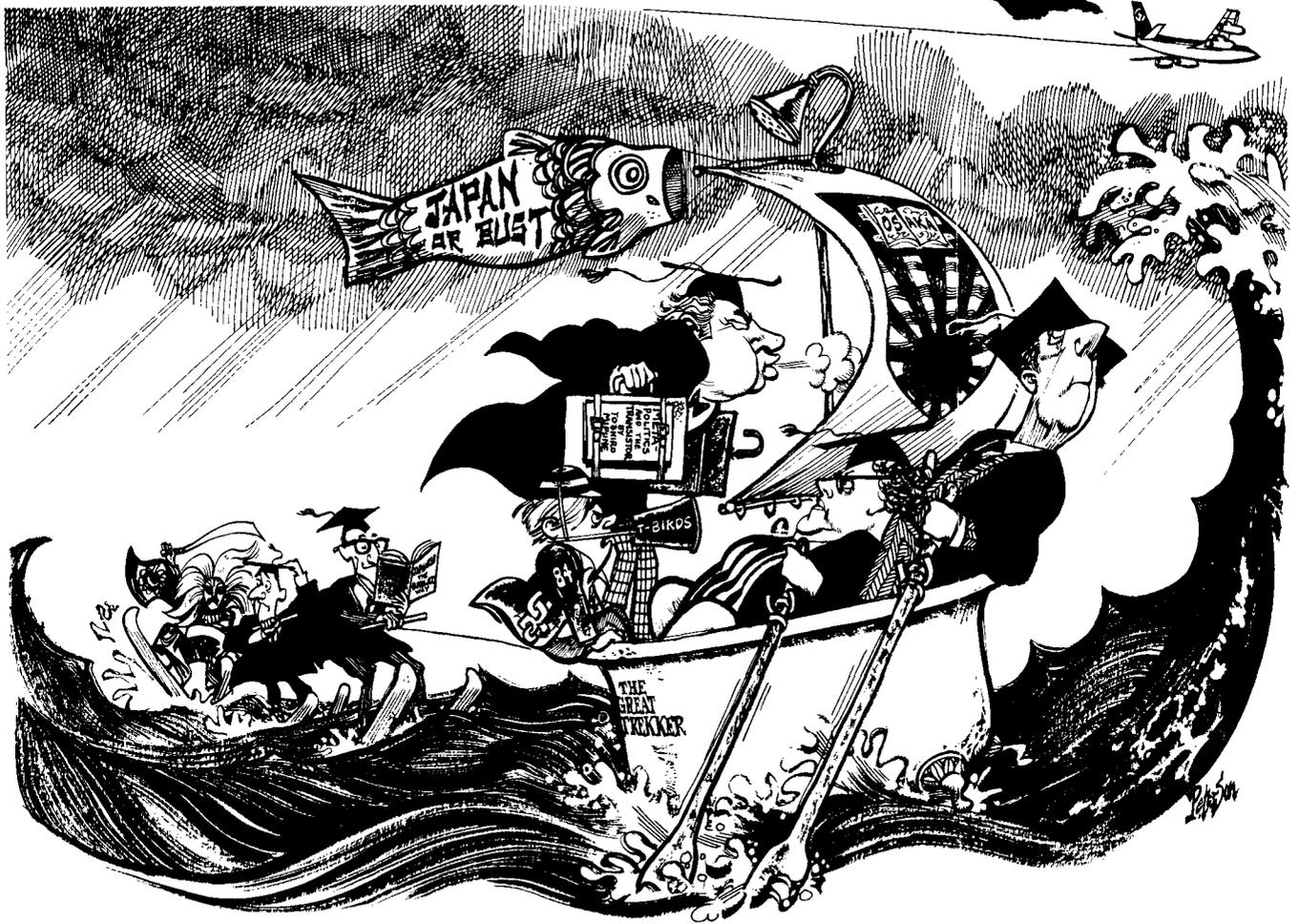
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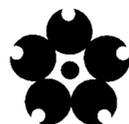
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