



UBC Reports



RETURN POSTAGE GUARANTEED

VOLUME 12, No. 2

VANCOUVER, B.C.

OF BRITISH COLUMBIA

March-April, 1966.

7,000 RARE BOOKS ARRIVE

Grad Class Wooed

The University of B.C.'s 1966 graduating class is being wooed by an unprecedented number of recruiting teams from industry.

UBC's Office of Student Services has arranged for 328 recruiting teams from 258 companies to talk to students this year. This represents an increase of 13 percent over 1965 in the number of companies visiting the campus to interview students.

CAREERS OFFERED

The number of B.C. firms interviewing graduating students to offer careers in the province has increased 21 percent over 1965.

While opportunities are excellent for all types of graduating students, engineers and commerce students are the most sought after, according to Mr. J. C. Craik, UBC's Placement Officer.

"To take a single example, about 80 companies sent recruiters to interview the graduating class of 28 mechanical engineers," Mr. Craik said.

NO LIMIT

Other companies, Mr. Craik said, are not even putting a limit on the number of students they want to hire. The representative of one firm said they would hire as many students as were available providing they wanted to work for the company and their qualifications met the company's standards.

Some companies are continuing their policy of offering summer employment to undergraduate students in the hope that they will join the company permanently after graduation.

Mr. Craik said one international construction company has been interviewing engineering students who will graduate in 1968.

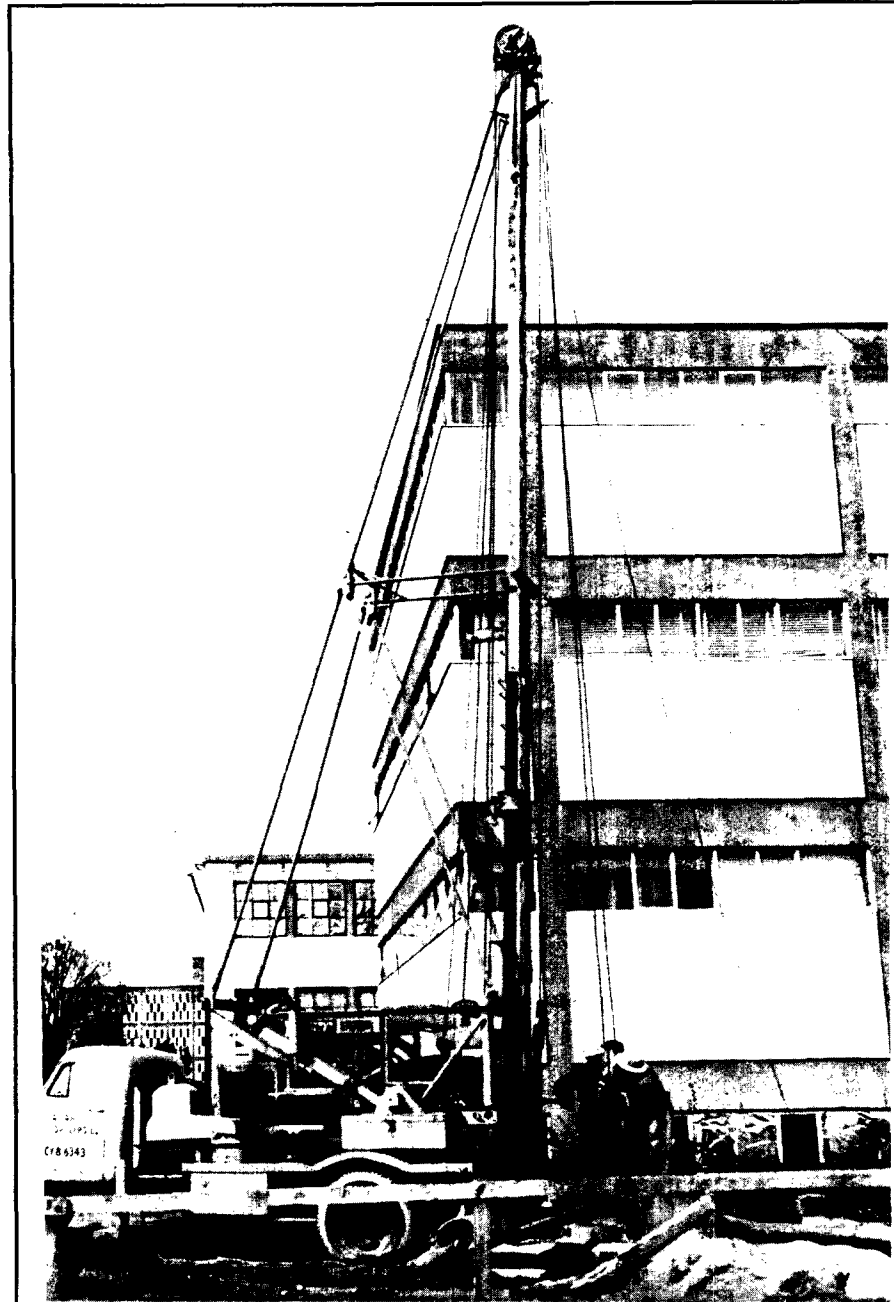
TRAINING PROGRAM

He said the company has a specific training program to prepare engineers for positions in other parts of the world.

The increasing number of recruiting teams coming to the UBC campus is a reflection of Canada's expanding economy, employment officials said.



LAURIER LAPIERRE, television personality and McGill history professor, speaks at the UBC Alumni Association's annual dinner meeting May 11 in the Hotel Vancouver. See story on page 7.



PURE WATER found by a drill crew 325 feet under the UBC campus near the biological sciences building will be used by fisheries and zoology experts for scientific experiments.

325 FEET DOWN

Drilling Rig Strikes Water on UBC Campus

Drilling of a 325-foot well to provide pure, fresh water for scientific experiments has been completed on the UBC campus.

The well, which has been sunk at the south west corner of UBC's biological sciences building, will provide 60 gallons of water per minute for the Institute of Fisheries and the department of zoology.

WATER UNSATISFACTORY

Dr. Norman Wilimovsky, director of the fisheries institute, said the city water supply presently used for experiments is unsatisfactory for three reasons.

Chlorine in the city supply kills experimental fish if it is not first dechlorinated in a special unit in the biological sciences building.

"The city water supply is also deficient in certain minerals which are necessary for fish growth and development," Dr. Wilimovsky said.

Finally, interruptions in the present supply anywhere in the city produce minute air bubbles in the water which clog the gills of fish and kill them.

Dr. Wilimovsky said that in the past two years at least four im-

portant experiments have been ruined as a result of one or more of these factors.

CAMPUS WATER IDEAL

The natural water found on the campus has been analysed and found to be ideal in terms of chemical composition and purity for such experiments, Dr. Wilimovsky said.

The drilling of the well is one of the first steps in the expansion of the biological sciences building to provide increased research and teaching space for the Institute of Fisheries and Oceanography and the departments of zoology and botany.

A \$6,000,000 addition is currently being planned for the building. Funds for construction will be provided by the provincial government and the 3 Universities Capital Fund.

CONTRACT AWARDED

Rural Well Drillers Ltd., 4739 Lougheed Highway, Burnaby, were awarded a contract for drilling the well. The total cost of the project, including construction of a man-hole and installation of pipe, pumps and electrical wiring, will be approximately \$26,000.

UBC has acquired a collection of 7,000 rare medical and scientific books as a result of the accelerated book buying program initiated last year through the support of Dr. H. R. MacMillan.

UBC librarians are now unpacking the collection from 65 tea chests in which they travelled to Vancouver by ship from Magdalen College, Oxford.

The collection was regarded as the finest of its kind under private ownership in Great Britain.

The former owner, Dr. Hugh Sinclair, lecturer in physiology and biochemistry at Magdalen College, has been quoted in British newspapers as

Report Examines Government of Universities

A report suggesting major changes in Canadian university government was published in March by the Association of Universities and Colleges of Canada and the Canadian Association of University Teachers.

The report makes recommendations concerning the size of the board of governors and senate of universities, the role of students and relations between universities and governments.

The extracts from the report to be found on page two are not intended as a comprehensive digest of the report, but merely as a sampler of suggested changes and the thinking behind them.

saying he sold to UBC because "he wanted his collection to be used by serious students, as they would be in British Columbia, not hoarded by collectors."

Some of the more outstanding features of the collection are:

- A rare 1641 edition of a medical text by Nicolaas Tulp, physician to Rembrandt, which has bound into it a red chalk drawing of a chimpanzee, allegedly by the great Dutch painter.

- The chalk drawing is the original used to make a copper engraving which is used to illustrate other copies of the Tulp book also in the collection.

- A medical text printed in Ulm, Germany, in 1481, during the first days of printing.

- Many original letters written by Florence Nightingale and several copies of rare first editions of her books.

- Original examples of Albert Einstein's early works.

Dr. William C. Gibson, professor of the history of medicine and science, said the acquisition of the collection puts UBC in the forefront of the world's medical and scientific libraries.

The books are being catalogued in the special collections division of the main UBC library. Appropriate volumes will be transferred to the Woodward Library later.

President John B. Macdonald, in announcing acquisition of the collection, said it was purchased "as a result of the greatly accelerated buying program initiated a year ago by Dr. H. R. MacMillan's gift of \$3 million to buy books over a ten-year period.

"Our librarian, Basil Stuart-Stubbs, examined the collection at Oxford last year during his first buying trip to Europe under the accelerated program.

"The decision to buy it was made after his return to UBC, when Dr. MacMillan extended his generosity to make this extremely valuable collection available to faculty members and students of the University."

Expansion Means Increased Pressures

Major changes in the system of Canadian university government are suggested in the report, "University Government in Canada," published in March. The report was sponsored by the Canadian Association of University Teachers and the Association of Universities and Colleges of Canada, and was compiled by an independent commission consisting of Sir James Duff, former Vice-Chancellor of the University of Durham, and Prof. Robert O. Berdahl, of San Francisco State College.

(The following extracts are not intended as a comprehensive digest of the report, but merely as a sampler of suggested changes and the thinking behind them.)

If tension levels are already high at many Canadian universities, it seems likely that future developments will only serve to heighten them. The rapid rate of expansion planned for higher education in most provinces points to increasing pressures on the President to obtain rapid decisions at the very time that the teaching faculties are asking for more and more of a share in these decisions. The growing shortage of qualified faculty will strengthen the hand of those teachers who are seeking to be treated as members of a "community of scholars" rather than as mere employees of the Board. For example, faculty demands will probably become more insistent for a larger share in the process of appointing their Department Chairmen, Deans, and senior university officers. Furthermore, some faculties are attracting to their university substantial grants for research. These are due to the distinction of the faculty members concerned and not to the money-raising efforts of the Board. In such cases members of faculty must necessarily be involved in financial decisions.

* * *

STUDENT DISCONTENT in other countries and testimony that we heard in Canada both point to the probability of growing demands for participation in university government; and those Presidents, Boards, and Senates who are insensitive to their grievances may find student negotiating tactics increasingly unpalatable.

PROBLEM OF SHEER SIZE

Finally, as a variable related to rapidity of expansion but separate from it, the problem of sheer size may make the governance of universities still harder and cause excessive tensions in some institutions which seem relatively stable now. We know the advantage and probably even the inevitability of larger universities, but we must note here the fact that relations between Board and Senate, between President and faculty, between students and faculty, and between students and administration—all seem to deteriorate as a university grows into a total of many thousands. Communication becomes more difficult; face-to-face negotiations more rare; a sense of identification with the institution more difficult both for students and for faculty. We are not sociologists and hence shall not explore the phenomenon beyond noting that this is part of a much larger trend in contemporary society to alienation and mass institutions . . .

The two-tier pattern is retained but our proposals involve an almost fundamental alteration. In place of the assumed separation of powers between Board and Senate, we propose a system whereby they are brought into much closer contact at many stages . . .

There should be more variety than is commonly found at present among Board members. Business men and lawyers tend to predominate. Both are admirably suited for the fiscal and constitutional aspects of the Board's duties, but what we may describe as the "window on the world" ought to be wider open. Both these professions are concerned to keep many aspects of their work strictly confidential and to avoid unnecessary communication, whereas the lack of good communication, from top to bottom and vice versa, seems to us a major cause of misunderstanding and discontent in many Canadian universities. And we do not refer solely to lack of official communication. We recognize that there are aspects, both fiscal and personal, of Board business that must be kept confidential . . .

The common practice of electing a certain number of alumni to seats on the Board should be continued. We recommend that other universities should adopt the practice at Queen's University of including as a full member of the Board a Rector, not himself a student, but elected by the students . . .

* * *

A BOARD IS ALL TOO LIKELY, under existing constitutions, to meet faculty members only when its Faculty Association requests consideration of salary scales or conditions of tenure. This is a necessary function of the Faculty Association. But it should not cause Board members to say, as we heard them say, that teachers seem only interested in their own salaries. If a Board that takes that attitude were asked to add one or two faculty members, nominated by the Faculty Association in default of a more appropriate body, the Board might well feel that they would be including members of the Opposition in the Government. It would not work. The case for faculty representation on the Board depends on other reforms, especially on the existence of a body such as the kind of Senate that we advocate, which could elect responsible representatives to the Board . . .

We recommend that the charter and acts should be modified where necessary to permit the inclusion of faculty members on Boards. It is important that they should be members of the Senate so that they will know in advance the business that is coming from Senate to the Board and will not be tempted to raise, as if they were fresh issues, matters on which the Senate has reached a decision. Staggered three-year terms are desirable to ensure continuity of experience; but re-election should normally be discouraged so that the Senate shall sooner or later contain a substantial proportion of members who have served a turn on the Board.

MONOPOLIZE DISCUSSION

Beyond the minimum of three members to permit proper rotation in office, the number of faculty members on the Board should vary with the size of the Board, not exceeding 25 per cent. The faculty should definitely be in a minority, because otherwise there would be a danger that the professors, being more vocal by nature and training than most lay members of the Board, would tend to monopolize the discussions . . .

The primary functions of the Board should continue to be as at present, i.e. to exercise the ultimate fiscal responsibility and the ultimate de jure sovereignty . . .

A major premise of our recommendations for revised structure and functions of both Board and Senate is that these bodies must understand each other better and work together more closely. We recommend that the Senate be allowed to discuss, and indeed pass resolutions on, any topic relating to the welfare of the university, not excluding matters relating to finance. Such Senate actions, would, of course be subject to the overriding legal authority and to the primary fiscal responsibility of the Board.

* * *

CONVERSELY, WE NOW RECOMMEND that the Board should not be inhibited from asking Senate to take a second look at some educational proposal that they have brought to the Board. The Board should give their reasons if they think that Senate has failed to take into account some public reaction to a particular educational plan. Again, they should feel free to ask Senate to consider a new development which the Board thinks deserving of consideration. But, just as the Board must have the last word on fiscal matters, so the Senate must not be overruled by the Board on a purely educational issue . . .

CENTRAL EDUCATION FORUM

There are numerous non-academic members on many Senates. Often the Senate has become so largely external in its composition, acting as a kind of public relations committee, that the normal functions of Senate have either lapsed or been passed on, perforce, to bodies such as the General Faculty Council or its Executive Committee. We recognize the value of the public relations functions for Senates . . . But it is so crucial for the Senate to become the central education forum of the university that we venture to recommend the removal of all external members except in those cases where it has been considered desirable to have a small representation from the Board of Governors sitting on Senate . . .

The size of a Senate often determines its effectiveness. It should be a deliberative body, not a mass meeting. That sets an upper limit of about fifty . . .

We recommend that the majority of the Senate should be elected by the faculty from the faculty, for staggered three-year terms, with rotation considered as normal but re-election not ruled out . . .

For eligibility, we suggest either all professors and associate professors or alternatively all tenured staff. In general we favour the former. Faculty below the rank of associate professor already form such a high percentage of total faculty (and their percentage is likely to increase) that if they formed a "youth lobby" and voted accordingly, the "gerontocracy" would change to a government by juniors. This would inevitably give the impression that the Senate was not a responsible body. Also there are not many junior faculty who could afford to give the necessary time (quite a considerable amount of time) to their Senate duties without jeopardizing their chances of establishing their academic career.

* * *

ON THE OTHER HAND it is important that junior faculty should feel that their voice can be heard somewhere in the government. Nothing else gives them so good a chance for developing a sentiment of loyalty to their university. Accordingly we suggest that, say, three seats on Senate should be reserved for faculty below the rank of associate professor who have tenure. The electorate for these seats should exclude professors and associate professors. If, as we are about to suggest, elections to Senate are held separately for each Faculty these

three "junior" seats will need to be rotated among Faculties by some agreed method. . . .

PRESIDENT CHIEF VICTIM

We consider that the President has been the chief victim of the defects of structure that have revealed themselves as universities become larger and more complex. Our major recommendations throughout this report aim at better communication and better representation from top to bottom and vice versa. In particular, with more links between Board and Senate, and with an elected majority on Senate, which itself elects members to seats on the Board, the President will have allies on both bodies. They can support him in presenting the Senate's requests to the Board. They can support him in explaining the Board's decisions, necessarily sometimes unwelcome, to the Senate. A President who under existing conditions feels himself baited and badgered by his Faculty Association may find this expectation difficult to accept. Yet it is true. The Faculty Association by its very nature carries no official responsibility. But the very same men, as elected members of the Senate, have responsibility thrust upon them. They become better informed, and if the Board's decisions are reasonable, they will see the reasons . . .

The subject of the relationship of students to university government is one which has only recently received serious consideration. But we saw enough symptoms of student dissatisfaction with their self-perceived status as "customers" of the university to know that there will be increasing demands made in Canada for their elevation to partners (albeit unequal ones) in the "community of scholars and students." Some variations of the Berkeley disturbances may possibly occur in Canada during the coming years. The issue, then, is not whether to welcome or stifle this new wave of student sentiment, but rather how to develop channels into which it can flow constructively.

* * *

SUCH CHANNELS WITHIN the university could be established on several different levels. For departments and/or Faculties, joint student-faculty committees seem to have worked well in the institutions where they have been tried. Normally the Department Chairman or Dean heads the committee and there is an equal number of students and professors . . .

Although some student leaders insisted that only one of their own number could properly represent students on the Board, most young people to whom we talked were willing to concede that this was not a feasible proposal. There are a variety of possible objections: the rapid turnover in student leadership not only makes consistently high-quality representation unlikely, but when a gifted student leader does emerge he is prevented from acquiring sufficient experience to be a useful participant. Furthermore, questions of delicacy and confidentiality which come before the Board would effectively silence the student representative vis-à-vis his constituency and would, in effect, drive a wedge between him and his fellow students. There is also the not inconsiderable factor of the additional time demands which Board membership would make on already busy student leaders.

STUDENT RECTOR PROPOSED

We recommend that the plan which has been successfully employed at Queen's University and at the Scottish universities be generally followed. Under this formula, the students elect a Rector, not himself a student, to represent them as a full member of the Board. There is some question as to whether this representative should be a well-established figure, or a lesser known, perhaps younger, man; but in our view, his fame is less important than his willingness to accept at least a three year term, to participate conscientiously, and to be easily accessible to the students for consultation and communication. Such a Rector should act as the articulate spokesman for student interests on Board matters that bear, even remotely, on student interests. As an example, he should suggest consultation with students before the Board decides to raise student tuition fees. The final decision may have to be the same, but if the necessity to raise fees has been carefully explained to the students ahead of time, mutual trust will have been greatly enhanced.

* * *

PROPOSALS TO ADD one or more student members to the Academic Senate seem to present fewer problems in principle, and the University of Victoria and several American institutions have already done so. The practice is too new for informed evaluation to be made of it. As an alternative or additional plan it has been suggested that students (not members of the Senate) be put on Senate committees relevant to student interests, broadly defined. (For instance, these committees should include not only the obvious ones dealing with libraries and scholarships, but also those which determine educational policies and admission standards.) . . .

We found Alumni participation in Canadian university government to be, by and large, of a high calibre. There was little evidence of the stereotyped "old grad" who wanted a sports stadium instead of a better library. On the contrary, the representatives of the Alumni Association whom we met seemed both devoted to and knowledgeable about the universities they were serving . . .



UBC'S EXTENSION DEPARTMENT became truly international in scope recently when it began cooperating with the University of Rajasthan in India on a project designed to develop adult education in rural areas. Dr. John Friesen, UBC's extension department director, led the team which was in India last year to advise the University on starting the project. One of the first tasks undertaken was a survey of the need for adult education and a research assistant is shown above conducting the survey.

INTERNATIONAL PROJECT

Cornerstone Laid For Indian Centre

December 23, 1965, marked a new date in India's history of education.

On that day Canada's High Commissioner, the Honourable Roland Michener, laid the cornerstone at the University of Rajasthan for a Centre for Continuing Education.

The occasion, attended by leading educators and government officials of Rajasthan and presided over by Vice-Chancellor Mohan S. Mehta, saw the culmination of several years' study of the need for such a building on the University of Rajasthan's campus.

URGENT NEED

When completed, the Centre, with its conference and seminar rooms, administration offices, modern communications service, and residential wing, will open its doors to many profes-

sional and community groups seeking to continue their education.

The need to up-grade India's manpower is most urgent. UBC's twinning arrangement with its sister university in the Commonwealth, is enabling that country and particularly Rajasthan to progress on an educational frontier that is relatively new in regional and national development on the subcontinent.

Established in the fall of 1964, between Canada's External Aid Office and the Government of India, the UBC-Rajasthan project was begun in its initial year by UBC's resident staff members in Jaipur, Dr. J. K. Friesen and Dr. J. A. Draper.

EXTENSIVE SURVEYS

After extensive surveys in rural and urban Rajasthan, the Canadian team and their Indian colleagues in Extension, in close co-operation with faculty, government and community resources, drew up a plan for continuing university education, the first of its kind in India. On this basis an extensive program in this field is now being launched.

Dr. J. Roby Kidd, the present senior adviser at Jaipur, reports that current developments in continuing education there include a plan for education by correspondence, now approved by the University and the governments which will lead to the eventual enrolment of some 10,000 students a year.

Many of these have no other opportunity to continue higher education. The Canadian team also reports holding an increasing number of short courses and conferences for librarians, community development staff, personnel of many of Rajasthan's 70 colleges, supervisors and teachers in literacy programs, etc.

CREDIT UNION ASSISTS

Recently a course in co-operative development was held in Jaipur with the financial assistance of the B.C. Credit Union League.

Another organization that is twinning with its Jaipur counterpart is the University Women's Club of Vancouver. The staff at the University of



DR. MOHAN S. MEHTA, former vice-chancellor of the University of Rajasthan, and the man who sparked the current UBC-Rajasthan project, is visiting UBC until April 20 to review the program, and meet with members of the Asian studies department and Indian students. He will also speak at public meetings in Vancouver and Victoria.

SPECIAL SUPPLEMENT

Extension 30 Years Old

UBC's extension department is 30 years old this year.

Its 1936 founders — two in number — little dreamed that in 1966 the department would have grown to 55 persons and would be facing new challenges resulting from a rapidly changing society.

But the goal of the extension department in 1966 remains almost identical to the one which motivated the founders — to expand the boundaries of the University campus to the four corners of the province.

On this and the following three pages of the March-April edition of UBC REPORTS are articles and news stories detailing some of the current and future programs of the department.

Demand Increases for Continuing Education

Programs in continuing education for professional people are expected to double in enrolment in the next five years at the University of British Columbia.

This year 7,400 professional men and women are taking advantage of extension courses.

Increasing demand for short courses, seminars and evening classes is coming from professional associations, groups and individuals who express a growing need for continuing education in their areas of specialization.

KEY ACADEMIC GOAL

Currently, programs for teachers, lawyers, pharmacists, businessmen, social workers, nurses, agriculturalists and special industries such as fisheries

are among those arranged by the department.

The University of British Columbia has selected as a key academic goal in continuing education, "the education of graduates already active in professional and other fields in order to ensure that such persons are fully aware of the rapid developments in their fields."

Paralleling this, the Economic Council of Canada's Report, published in December, 1965, recommends the advancement of education at all levels be high priority in public policy, adding "In particular we urge that immediate attention be given to the following . . . The development and implementation of greatly expanded programs to upgrade and bring up to date the education and skill qualifications of the existing labor force, including professional workers and management. Continuing education and retraining must play an ever-increasing role in the future."

INTEREST HIGH

Indicative of interest is a recent architects' conference in Vancouver for which the main speaker's topic was "continuing education for architects."

Similarly, continuing education in educational administration was a major topic at a November, 1965, Vancouver conference for district superintendents, principals and vice-principals from schools throughout B.C.

All programs in continuing education for the professions show significant growth in the past few years at UBC.

An education-extension program was established in the department 2½ years ago to provide non-credit courses, workshops and lectures in the field of education.

Prior to 1964 only a few professional education courses were held each year with registration in the low hundreds. Since then, 40 to 50 programs have registered more than 2,000 people each year.

SPECIAL SEMINARS

Continuing education programs in engineering fields show a similar growth with an enrolment of 64 in 1962-63 which had increased to 1,375 by 1964-65.

Highly specialized seminars, such as one held in February, 1965, on British Columbia's Future in Forest Products Trade in Asia and the Pacific Area, are being offered in increasing numbers in the area of commerce and business administration.

This intensive one-day seminar, offered in cooperation with the faculty of forestry, brought to the campus 20 specialists from different areas of the forest industry, representing government, universities and industry in Canada, the U.S. and New Zealand. More than 100 attended.

For the past seven years the Canadian Bar Association, B.C. branch, the Vancouver Bar Association and the faculty of law in conjunction with the extension department have offered an annual law refresher course.

From 1964 to the present the B.C. Pharmaceutical Association, faculty of pharmacy and extension department have offered programs in continuing education for pharmacists. In total 279 pharmacists have participated in seven programs.

PHYSICIANS REACHED

The faculty of medicine's department of continuing medical education, established in 1960, reaches physicians throughout B.C. In 1964-65 alone, 27 per cent of the province's 2,345 physicians in practice registered for one or more continuing education courses.

Popular Course Revived

The popular extension department study-discussion program, Living Room Learning, will be revived this September after a two-year discontinuation.

First started in 1957 under a grant from the Fund for Adult Education, Living Room Learning at one time reached into 66 communities throughout British Columbia and involved some 1,600 people.

PROGRAM AIMS

After seven years of operation the program was terminated in 1964 when the extension department was struggling to meet the challenge of financial self-sufficiency. In some areas of the province study-discussion groups continued on an autonomous basis, and requests to reactivate the UBC program continue to be received.

Knute Buttedahl, associate director of the extension department, who initiated the first Living Room Learning groups, described the aims of the program as "helping the participants to think independently, critically and objectively, to develop his tolerance of opinions and ideas which differ from his own and to develop his skills in communicating with others."

Study-discussion involves the individual reading of specially prepared materials followed by group discussion. Groups are under the guidance of trained discussion leaders whose function is to create maximum opportunity for relevant and productive discussion.

MEET IN HOMES

Groups normally enroll between 10 and 20 participants and meet in private homes. For this reason the "living room" gives the study-discussion program its name.

Many aspects of the original program will be repeated but new subjects will be offered and planning is underway to produce special study discussion courses for professional groups.

The range of topics will include Great Religions of the World, Looking at Modern Painting, Ways of Mankind, Ideas in Context, and Exploration of the Universe. New program subjects will be developed in cooperation with various academic departments at UBC.

Directed reading courses and individual study programs will be added to the program.

Please turn to page six
See EXCHANGE PLANNED

New Emphasis Is on Continuing Education

(Gordon Selman, the author of the following brief history of the UBC extension department, is executive assistant to President John B. Macdonald and former associate director of extension. The article is based on the thesis which he wrote for his master of arts degree in history).

By GORDON SELMAN

Extension services have been offered by UBC since the earliest days of the University. The Faculty of Agriculture was giving courses for farmers and other primary producers before it accepted any regular full-time students. More than 1,300 veterans of World War I attended vocational short courses at the University between 1917 and 1921.

A lectures service for community organizations was organized by the faculty in 1918 and before long was arranging some hundreds of lectures each year. Almost all these activities were curtailed in the early 1930's, however, when the University grant was cut drastically by the government.

A FRESH START IN 1935

A fresh start was made possible in 1935 as a result of a grant from the Carnegie Corporation, a portion of which was used to carry out a remarkable series of lectures throughout the province. In just a few months 893 lectures were given, attended by more than 70,000 persons. In order to give permanence to this work, the University created the Department of University Extension in late April of 1936, almost thirty years ago exactly.

The Extension Department has had three directors since that time, Mr. Robert England (1936-37), Dr. Gordon Shrum (1937-53) and Dr. John Friesen (1953-66).

From a staff of two — a director and his secretary — the Department has grown over the years to perhaps the largest in the country. The program has expanded from just a few courses in the first year which involved only a few hundred persons, to the present ambitious and comprehensive service

which enrolls more than 25,000 adults each year in its many hundreds of courses.

Mr. England launched a number of new programs during his short term as director and laid the foundation for future development of policy and program. The main task of building up the Department remained to Dr. Shrum. In him the Department had a leader admirably suited to this task. He recruited able young people to help set up the program. He sought funds and other assistance from outside the University in order to build up the Department beyond what university funds permitted.

Most important of all, he looked at the needs of the people of the Province and designed programs which helped meet them. He found people troubled about the problems of the depression and provided study groups on economics and public affairs. He found interest in the arts at a low ebb and provided a wide variety of services in theatre, music and the visual arts.

Life in the rural parts of the Province was isolated and economically depressed in many areas and he organized a field staff to put on training courses for unemployed rural youth, a program on co-operatives for fishermen and courses on home economics and handicrafts for women in all parts of the Province. At the same time many and varied courses were offered in the Vancouver area.

By the time Dr. Friesen took up his duties as director in the early fifties, the pattern of educational services in the Province had changed greatly. Economic conditions were more satisfactory, people tended to stay in school longer and a wide variety of other agencies were developing adult education programs. The need then was for the University to concentrate more on the training of leaders and the further education of its graduates.

Continuing education in the professions and specialized programs in many different fields of interest were stressed. The Summer School of Arts was brought to new levels of achievement. Courses

carrying credit towards a degree were made more generally available. With the help of funds secured from private foundations, experimental and interdisciplinary programs in the liberal arts were expanded, high-level courses on public affairs were organized and long-range programs for persons in positions of public responsibility were successfully carried out. With other institutions providing a range of services, UBC could more and more concentrate on "higher adult education."

The development of UBC's comprehensive extension program has been made possible by a number of factors. One of the most obvious has been the encouragement and support given to it by Presidents Wesbrook, Klinck, MacKenzie and Macdonald. "Guideposts to Innovation" states clearly that continuing education continues to be a major function of the institution.

IMPORTANT CONTRIBUTION

The faculty of the University, several hundreds of whom teach Extension courses each year — from the most junior to the most senior members of the staff—make an essential contribution to the program and do so obviously in the belief that this is an important aspect of the University's contribution to the Province. The directors and staff of the Extension Department itself have also, of course, played a crucial part over the years in creating the outstanding service now available to the people of British Columbia.

In the years ahead, further changes in the program can clearly be expected. UBC has gained new partners in the post-secondary field in the form of three universities (University of Victoria, Simon Fraser and Notre Dame) the B.C. Institute of Technology and the public and private community colleges. The emphasis of UBC's role in continuing education will undoubtedly change in keeping with the changing goals of the institution as a whole. The developments in the next thirty years will likely be as exciting as those of the last thirty, although one tends to wonder whether that is possible.

Jet-Age Study Tour Attracts 39 to Mexico

An education program keyed to the jet-age began March 18 when a group of 39 left by Canadian Pacific Airlines for a 19-day study tour of Mexico.

The Mexican tour was the second educational tour organized by the UBC extension department, the first being a highly successful tour to Quebec last spring.

Orientation lectures on Mexican history, politics, sociology and culture by

3,000 Titles Listed in Film Catalogue

Three new catalogues listing films available on loan throughout British Columbia have recently been published by the audio-visual services division of the extension department.

More than 3,000 titles, ranging from the experimental films of Norman McLaren to a series on the nature of work are listed in a general catalogue. Forty-seven new films have been added to those available in the last three months.

"Films from Britain," 266 titles and "Films from Australia," 121 titles, are catalogued providing borrowers interested in productions from these two countries with more complete descriptions of films available.

In the past year the audio-visual division served more than 1,000 film borrowers, including firms, churches, government departments, schools, individuals and community organizations.

Film subjects include agriculture, community and national affairs, education, travel, labor and management relations, manufacturing and technical training, music, dance, fine arts, theatre, natural resources, wildlife and conservation, science, philosophy, religion, recreation and world affairs.

Among new films recently added to the department's library are "Computers and Control," generally describing the application of computers in Britain; "Growth of Love," behavioural studies of factors involved; "And a Couple of Wallabies," travel in Australia; and "In Good Shape," original creations in British designs.

Professor Thomas Brose, Simon Fraser University, and on art and architecture by Professor William Hart, UBC fine arts department, as well as lessons in conversational Spanish, prepared participants for the tour directed and accompanied by bilingual sociologist Roberto Cuba Jones of the International Cultural Centre, Mexico City.

ORDERLY ITINERARY

The tour focused upon cultural, social, economic, archaeological and historical aspects of Mexico and the itinerary was conducted in chronological order — from centres of pre-Columbian, Aztec and Mayan cultures to areas of Spanish conquest, colonial history and independence, to contemporary aspects in Mexico City.

The group visited many historical sites and attended lectures by archaeologists at digs in the Yucatan, a program of native dances at Patzcuaro, a lecture-seminar on art by the director of the Institute of Art at San Miguel Allende, a program at the UNESCO School for Fundamental Education in Patzcuaro, lectures in Mexico City on regional planning and the Four Great Murals, a visit to the Mexican Autonomous University and participation in the seminar on social change in Latin America conducted by four experts in Mexican economics and politics.

FULLY BOOKED

The tour combining learning with leisure was fully booked shortly after it was announced and had a long waiting list.

It attracted mainly professional people and included several physicians, a lawyer, engineer, labour relations expert, community planner, radio and communications expert, librarian, nurse, school teacher, research assistant, and a forester.

Educational tours, linking study with firsthand observation, are designed by the extension department for adults seeking a comprehensive understanding of other cultures.

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UBC REPORTS
MARCH-APRIL, 1966
VOLUME 12, No. 2



ERICA BUSCH



MARCELLE ZONTA

UBC SCHOOL

Opera Workshop Leads To Professional Stage

Within the first five years of its existence, the UBC Opera Workshop has trained two outstanding students who have made their professional debuts with the Vancouver Opera Association and have since advanced their careers in New York and London.

Soprano Marcelle Zonta, who during the past three years has trained at the University of Toronto's opera school, has appeared with the Canadian Opera Company and at the 1965 Stratford Festival.

NEW YORK AUDITION

In December, 1965, while singing the lead in Prokofiev's "The Love for Three Oranges", she was heard by directors of the Metropolitan Opera's National Touring Company and after an audition in New York became the third Canadian to win a year's contract with the Company.

Erica Busch, who is studying with Roy Henderson, one of Britain's leading teachers, has had encouraging auditions with both the Sadler's Wells Opera Company and the Glyndebourne Festival. This spring she

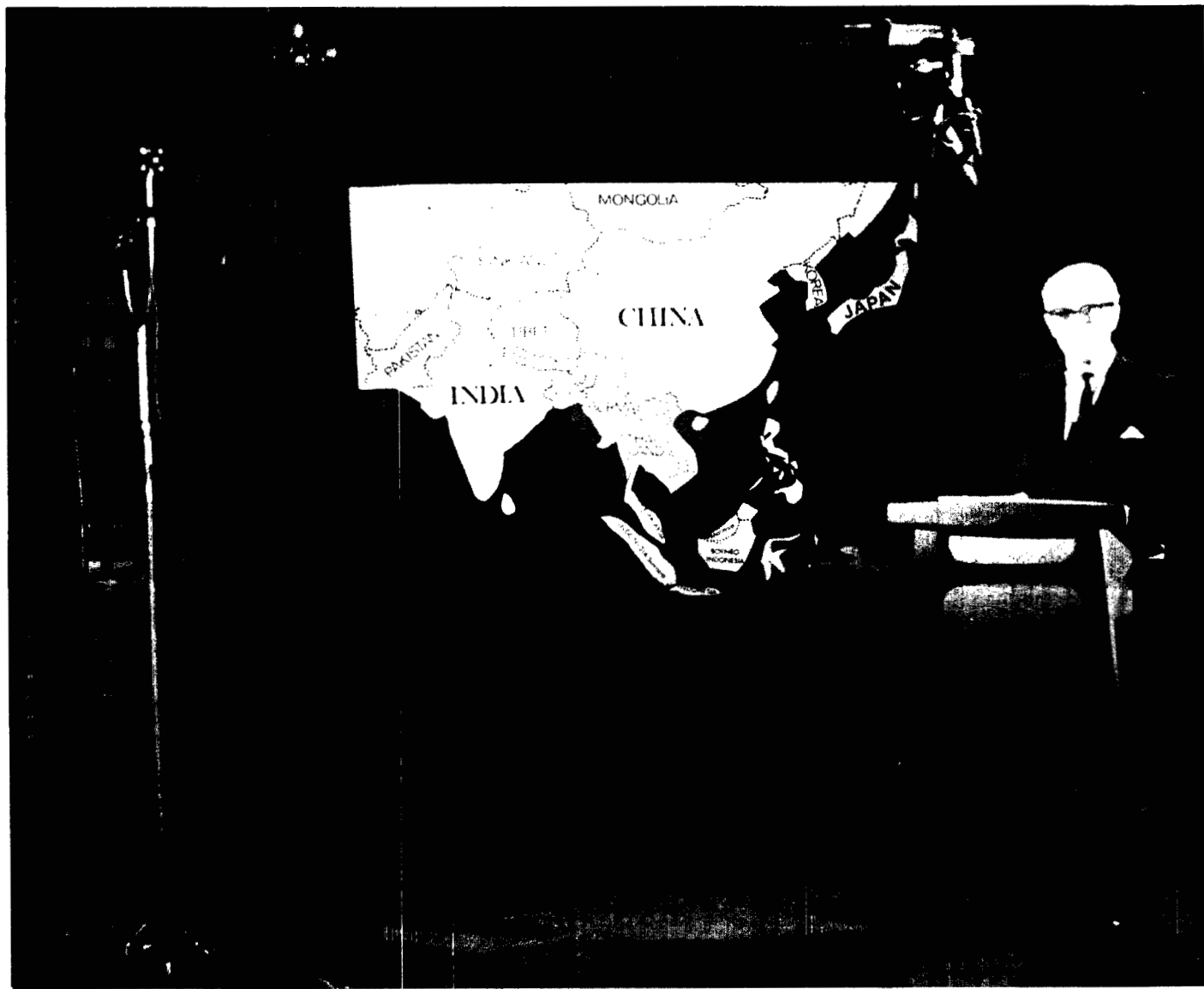
joined the British Arts Council Touring Company "Opera for All."

The UBC Opera Workshop, which began in 1961, aims to train vocalists in the "stage arts" of the opera singer by using a series of excerpts, rather than a single major production as the basis for a six week course. This makes it possible to utilize each singer to the fullest extent of his or her abilities.

VARIETY STRESSED

Professor French Tickner, director since 1961, says "I wish to stress the creative aspects of learning 'styles' rather than 'works' and the adaptability of the singer to specific dramatic situations brought about by performing several parts in operas highly diversified and different in approach and style."

Nicholas Goldschmidt first introduced opera to UBC in 1952 at the annual extension department Summer School of Arts. Until 1958, when the Vancouver Opera Association was founded, the UBC Opera School provided the only locally produced opera on a near professional level.



PROFESSOR William L. Holland, head of UBC's Asian Studies department delivers one of the weekly adult education television programs on Asia over CHAN-TV. The 26

lectures, produced in cooperation with the UBC extension department, deal with art, religion and international relations in southeast Asia. Series will be repeated this summer.

TO BE REPEATED IN SUMMER

Asian Civilization Topic Of First Television Series

In response to continuing requests by viewers, CHAN-TV will repeat the comprehensive series of weekly adult education television programs Great Asian Civilizations this summer on Channels 8 and 6.

PROFESSOR CO-ORDINATES

The series of 26 half-hour lectures was produced by British Columbia Television in cooperation with the University of British Columbia departments of Asian studies and extension.

Prof. W. L. Holland, head, Asian studies department, coordinated the programs.

CRISIS AREAS

"With such crises as the recent war in India and Pakistan, such events as the Chinese development of nuclear weapons and, above all, the increasing involvement of the U.S. and Commonwealth nations in the Viet Nam war, the need for a deeper understanding of some of the social and

political forces in Southern and Eastern Asia is greater than ever," said Prof. Holland.

Program topics range from art, religion and social change to politics, economics and international relations in China, Japan, India, Viet Nam and Malaysia.

FIRST EFFORT

The initial run of the series began in November, 1965, as a part of University of the Air, the first combined effort of a group of private television stations across Canada to offer educational programs five mornings a week. Continuing until June, this series is shown at 7 a.m. Fridays.

In December a repeat of the program began Tuesdays at 11:30 p.m.

This summer's showing will give persons who missed portions of either earlier broadcast the opportunity to view the complete series. Time and day will be announced later.

FACULTY LECTURE

UBC faculty members participating include: Dr. W. E. Willmott, Dr. Mary Morehart, Prof. Shuichi Kato, Dr. D. G. E. Hall, Dr. John K. Friesen, Prof. John F. Howes, Prof. Jan J. Solecki, Prof. Kazuko Tsurumi, Dr. Peter Harnetty, Dr. Michael Ames, Prof. Elliot Weisgarber, Prof. R. S. Milne and Dean Emeritus F. H. Soward.

This venture into educational television adds a new dimension to UBC extension department offerings, co-operating closely with University departments, in bringing the University's resources to the community at large.

Universities in Calgary, Edmonton, Ottawa and Toronto along with UBC developed programs for the University of the Air series. Subjects include psychology, conversational French, history, theatre and mathematics.

FOWLER COMMISSION

The programs were planned before the Fowler Commission report which criticized private stations and recommended educational shows in the morning.

Conference Office Uses Idle Space on UBC Campus

There is no such thing as an idle campus anymore — at least not at the University of British Columbia.

The recently published 1964-65 annual report of the UBC extension department shows some 13,329 persons attended conferences, short courses and seminars on campus last year — more than double the 5,763 figure in 1963-64.

In addition, 5,882 adults from throughout Greater Vancouver attended non-credit evening classes sponsored by the extension department, exceeding in total the 15,489 winter session students for the same year.

FULL-TIME OFFICE

UBC is unique among Canadian universities as the only one to have a full-time office of short courses and conferences for the single purpose of organizing, coordinating and administering.

The office was established in 1958 as a part of the extension department. From a total of 5,048 on-campus conferences in that year, the number has almost tripled in six years.

"Educational conferences, institutes and seminars are growing because of the increased demand for continuing education programs, particularly in the professions," said Knute Buttedahl, recent supervisor of the office.

There is a growing demand from community organizations for convention facilities. Some of these conventions or annual meetings are so large

that they are difficult to accommodate in commercial facilities. For example, during June, 1965, the Conference of Learned Societies of Canada registered more than 4,000 people.

"Our philosophy towards non-educational meetings has been that the university, as a public institution, makes its facilities available to the community whenever they are not required for teaching or research purposes, provided that any group making use of the facilities pays all expenses involved," said Buttedahl.

GROUPS MEET

In 1964-65 alone, the Chartered Accountants Association, Junior Red Cross, General Synod of the Anglican Church of Canada, Luther League, Girl Guides of Canada, provincial United Nations High School Seminar, a dairy short course, Metropolitan Health Nursing Workshop, a school design seminar, fisheries short course, seminar on B.C. Forest Products Trade in Asia and the Pacific Area, seminar on Automation and Business for businessmen and B.C. School Trustees were among meetings held on campus.

Former supervisor of the office, Knute Buttedahl, is now associate director of the extension department. He has been succeeded by Jindra Kulich, who has returned from the Elliot Lake Centre for Continuing Education in Ontario to head the conference office.

Diploma Course Offered

A diploma program in adult education will be offered for the first time by the University of British Columbia beginning in July, 1966.

The program is designed for persons who wish to acquire the skills and knowledge to organize, conduct, evaluate and administer programs in adult education, but who do not wish to pursue a graduate degree.

It is offered by the faculty of education and the extension department in response to growing demand for specialists in adult education.

MANY PARTICIPATE

Public school adult education directors, trainers in business and industry, education officers in the armed services, community development workers, program organizers in volunteer organizations and district agriculturalists will be among those participating.

Candidates for admission to the program should have a bachelor's degree, a satisfactory background in some field of work or study which can make a contribution to adult education and

ADULT SUMMER PROGRAM WILL BE EXPANDED

An expanded summer program in continuing education for adults will be offered by the extension department in July and August, 1966.

Major programs will include beginning, intermediate and advanced intensive French conversation classes; weekly public affairs lectures; a one-week program focusing on the present state and future potential of Vancouver's harbor; a two-week residential workshop for teachers on programs for educationally deprived children and a seminar on India Today, July 7, 8 and 9.

Courses are planned to take advantage of the resource of visiting professors on campus for the summer and to utilize teaching facilities not available in the winter.

John P. Blaney, associate director of the UBC Summer Session, said an adult enrolment of 1,800 to 2,000 is expected. Last year approximately 1,500 persons participated in non-credit summer extension programs.

be considered by a policy committee to be serious and mature students.

In exceptional instances, individuals without a bachelor's degree who display a university graduate's level of knowledge and an ability to work at the graduate level may have their cases reviewed for admission.

CONTENT SET

Content will focus on three areas: philosophy, psychological and social foundations, processes and administration of adult education; a subject matter area related to the student's interest or previous academic experience; and the nature of both the educational program and the agency in which the student will work.

The course of study will be equivalent to a minimum of five full university courses plus a short internship which may be completed by one winter session or by summer sessions and/or extra-session classes.

In 1957 a graduate program in adult education was initiated by the University.

DIPLOMA POLICY

Diploma program policy is established by a committee of persons representing the faculties of education, arts, agriculture and graduate studies, the director of extension, the registrar and the professor of adult education.

Further information on the program is available from the extension department.

Pharmacy Lectures Taped

Automated lectures involving three communications media — tape, slides and telephone — are planned for April to provide continuing education to practicing pharmacists in certain areas of British Columbia.

A specialist in internal medicine and staff member of the B.C. Cancer Institute has tape-recorded a 45-minute lecture on treating cancer with drugs and synchronized selected slides to accompany the tape.

This material is being made available to groups of pharmacists throughout B.C. by the UBC extension department, faculty of pharmacy and the B.C. Pharmaceutical Association.

Playing of the tape and showing of the slides will be followed by a direct telephone hook-up with the specialist in Vancouver to provide each group with opportunity to ask questions and receive immediate answers from him. Local speakers will also participate.

The advantages of this tri-media approach are numerous. In particular, it allows a single speaker to be heard by many more audiences than he could speak to in person, remoteness of locale is not a factor; and large and small groups alike can be accommodated.

Additionally, this technique allows dissemination of information not generally available through ordinary literature channels.

The program is scheduled to be repeated in several communities, including Kamloops, Cranbrook and Terrace.



CHANDELIERED BALLROOM of Yorke House on the UBC campus was a classroom recently for these B.C. fishermen taking an intensive three-week course designed to acquaint them with the latest developments in a wide range of areas, including fishing techniques, navigation

and marine law. The annual program, sponsored by the UBC extension department and the federal department of fisheries, has increasing enrolments each year. This is its 27th year of operation. Photo by Gordon Sedawie, Vancouver Province.

THREE WEEKS AT YORKEEN

Course Takes Fishermen From Boat to Ballroom

This spring 35 commercial fishermen, from such points as Ucluelet, Prince Rupert, Puget Sound, Bella Bella and the Queen Charlotte Islands, moved from boat to ballroom for the 13th annual Fisheries Short Course sponsored by the extension depart-

ment and financed by the federal Fisheries Department.

STUDY IN BALLROOM

In what was once the ballroom of Yorke, the former home of Senator S. S. McKeen, now owned by UBC,

the fishermen studied how to do their job better.

The three-week course is part of an extension department program in fisheries which began in 1939 with funds provided by the federal Fisheries Department.

CO-OP FORMED

Early programs, following the east coast example of St. Francis Xavier, concentrated on helping fishermen by aiding them in establishing co-operatives and credit unions. One example is Prince Rupert which, from a meagre beginning, now boasts a Fishermen's Co-operative Association that has more than eight and one-half million dollars in assets.

In the mid-fifties the residential school, a completely new concept of extension work in fisheries, was introduced at the time the Hon. James Sinclair was minister of fisheries.

In 1954 seventy fishermen, selected on the basis of competency and experience, came to UBC for two weeks to study their industry. This was the genesis of the current program, which has grown to three-weeks in length.

VARIED COURSES

Now in its 27th year, the varied curriculum covers international law, oceanography and accounting to coastal piloting, boat construction and radar operation. Lecturers are from the UBC faculty, federal Fisheries Department, Fisheries Research Board, commercial companies and individual specialists.

As another part of the fisheries program, middle management from fishing companies have attended a 12-week evening class modification of the short course for the past five years. The 1966 series had an enrolment of 33.

Indicative of the program's success are growing requests for information on content and operational details from Australia, New Zealand, the United States and countries in south-east Asia.

STATISTICS COURSE

Special programs such as a recent 10-week statistics course for technicians at the Biological Research Station, Nanaimo, are conducted as a part of the extension department fisheries work.

CONTINUED FROM PAGE 3

Exchange Planned

Rajasthan's Department of Adult Education is also assisting the Faculties of Engineering, Social Science and Commerce, to develop refresher courses in Engineering, Management, Public Administration and Welfare.

An interesting feature of Indo-Canadian co-operation in Rajasthan and in other states is the work of the young CUSO volunteers. In Rajasthan alone, these recent university graduates are making a unique contribution in teaching, community development, agricultural extension and nursing.

At the same time they are learning a good deal about a new culture in a country whose development is of special significance to its Commonwealth partners.

TEAM TO UBC

The first exchange team from the University of Rajasthan to UBC is expected to arrive shortly. They will come to Canada under Colombo Plan auspices and return to India as members of the extension staff in Jaipur.

This form of exchange, which was so successful in the recently completed UBC-University of Malaya project in business administration, assures continuity of the project in the host institution and aids directly in achieving the goals of self-help in national development.

In addition to investment by governments in this program, the UBC project team sees an even larger opportunity for twinning arrangements between voluntary, social, business and cultural agencies of British Columbia with those in Rajasthan. In this way, an increasing number of people, both young and adult, can assist in, and benefit from, this unique undertaking in international goodwill and understanding.

GOVERNMENT SUPPORTED

Program Seeks To Aid Indians

"You don't build houses, but ideas."

The comment was made at a recent meeting in Fort St. James sponsored by the UBC extension department's Indian Leadership Education Program.

The speaker is a builder of houses, one of a growing number of Indians who are employed in helping improve the physical environment of their people.

ACQUAINTS GOVERNMENT WITH NEEDS

But he is also a builder of ideas, as an elected representative to the recently formed British Columbia Regional Advisory Council — established to acquaint government with the needs and desires of the people it represents.

It was in the latter capacity he was sharing with others in considering current difficulties facing Indians. With financial support from the Federal Indian Affairs branch opportunity for such sharing is provided through the Indian Leadership Education Program.

The program began on a part-time basis in 1962 at the request of an Indian organization. Indian leaders from across the province met at UBC.

Since becoming a full-time program in 1964 the emphasis has changed to taking campus resources to the people on their own home ground.

A recent workshop brought together chiefs and councilors from five bands in the Terrace agency, Kitimat in the south to the Nass River in the north. For two days the leaders examined the impact of the growing forest industry on the previously isolated fishing communities. With them were representatives of the major company operating in the area.

Delegates recognized the need for councils, as the local elected governing authority, to keep up with new developments in helping their people to adapt.

ENCOURAGE TRAINING AT HIGHER LEVEL

Education in relation to home, community, school and adult life was discussed. The group agreed that although many Indians are finding a place in the new forest industry, there is still need to encourage young people to undertake training at higher technical and professional levels.



EXTENSION AND IMPROVEMENT program currently underway at the south end of the UBC campus includes a new stadium which can be seen taking shape in the centre foreground of the aerial photo. Agricultural field facilities to the north of the stadium site, now zoned for parking, athletics and housing, will be moved to cleared

areas in woods to the south and east, where facilities for forestry and the biological sciences will also be placed. When completed, the expansion will put into use the entire 988.74 acre campus stretching from the tip of Point Grey to the Simon Fraser Memorial on Southwest Marine Drive. Photo by George Allen Aerial Photos Ltd.

Fund Active Again

The Three Universities Capital Fund has resumed active campaigning to raise the final \$8 million of its \$28 million objective.

The Fund, which now stands at nearly \$20 million, has been in recess since last September to allow United Appeal campaigns to complete canvassing.

GIFTS RECEIVED

Co-chairman of the Universities appeal, Allan M. McGavin, who announced the resumption of canvassing, said that 2,480 gifts totaling \$1,098,246 were received during the inactive period.

Mr. McGavin said active canvassing for the Fund, which was launched in 1964 to finance building projects at B.C.'s three public universities, should be wrapped up by June 15.

He added that the Fund would continue after this date and the campaign committee would remain active.

MUST GO ON

"We go on," he said, "until we hit \$28 million. We must. The fund is only trying to keep pace with minimum building requirements of our universities."

The \$28 million being raised by the Fund is part of a \$68.7 million expansion program in progress at UBC, University of Victoria and Simon Fraser University.

The provincial government has pledged a total of \$40.7 million toward the five-year building program.

ENDOWMENT NEARS \$30,000

\$1,500 Scholarship Named For Former UBC Chancellor

A "little Rhodes Scholarship" honouring the late Chief Justice Sherwood Lett has been established at the University of B.C.

Gifts of nearly \$30,000 have been contributed to an endowment fund which will provide an annual award of \$1,500 to a student who displays the all-around qualities of the former Chancellor of UBC.

Dean Walter Gage, chairman of the UBC awards committee, said the first scholarship will be awarded this spring. Closing date for nominations is normally the end of February, but for this year only the final date was extended a further week.

"The late Chief Justice Lett was himself a winner of the Rhodes Scholarship in 1919," Dean Gage said, "and the basis for awarding the new UBC scholarship will be the qualities which Mr. Lett possessed — high scholastic and literary attainments, physical vigour, moral force of character and ability to serve, work with, and lead others."

SAME QUALITIES

He said these are the same qualities looked for by the selection committee which annually chooses a B.C. student for the Rhodes Scholarship to Oxford University.

The scholarship will be open to both

men or women graduate or undergraduate students who have attended UBC for at least two full winter sessions and who rank academically in the top quarter of the students in his or her year and faculty.

Winners will be selected on the basis of academic achievement, character and personal qualities, participation and achievement in student affairs, and leadership and service to the University or community.

SELECTION COMMITTEE

Selection committee will consist of Dean Gage, who will act as chairman, President John B. Macdonald, and representatives of the UBC Alumni Association, Alma Mater Society and the Graduate Students' Association.

Chief Justice Sherwood Lett, who died in July, 1964, at the age of 68, was described in the memorial minutes of the UBC Senate as UBC's "most distinguished graduate."

He was a member of the Senate from 1924 to 1957; a member of the Board of Governors from 1935 to 1940 and from 1951 to 1957, a recipient of an honorary doctor of laws degree in 1945, and Chancellor of UBC from 1951 to 1957.

Mr. Lett began his university studies at the old McGill University College and continued at the new University of B.C. where he was elected the first president of the Alma Mater Society in 1915.

FIRST CONSTITUTION

Together with his wife to be, Evelyn Story, he drew up the first AMS constitution. He then enlisted in the Canadian army, and was awarded the Military Cross while serving in France.

He received his bachelor of arts degree in 1916 while on active service and was awarded the Rhodes Scholarship in 1919 after returning to Canada.

At Oxford he took a BA in jurisprudence and returned to practice law in Vancouver. He was three times president of the UBC Alumni Association.

Pharmacists to Develop Poison Control Center

A \$4,590 National Health Research grant to develop a computerized poison control information system has been made to the University of British Columbia.

The grant will enable a research team in UBC's faculty of pharmacy to study and develop a method of data processing which will lead to poison information being available quickly from a computer in the planned University hospital.

TREATMENT DATA

The research team under J. Glen Moir, assistant professor of pharmacy, will attempt to develop a computer program which will give treatment information when told either the patient's symptoms or the name of the poisonous product.

When the UBC hospital's computer is in operation it should be possible for a hospital or physician in any part of B.C. to phone or telex for treatment information which would be available in minutes.

Alternately, Mr. Moir said, the computer program could be made available for local use to any hospital having the necessary computer facilities.

The new grant arises out of a pharmacy faculty project developed in co-operation with the Health Branch, Department of Health Services and Hospital Insurance, of the provincial government. This initial project was designed to update and simplify information on poison control.

PRODUCT INFORMATION

For the new computer project pertinent information on drugs, patent medicines, household and agricultural products, cosmetics, chemicals and solvents would be collected and reviewed.

When adequate volumes of poison control data are available experimental computer programs will be written, tested and analysed with a view to selecting the best system for the UBC Health Sciences Center and the UBC computer.

Alumni Honour 1916 Grads

Laurier LaPierre, nationally-known television personality, will be guest speaker at the annual dinner meeting of the UBC Alumni Association May 11.

LaPierre, who is associate professor of history and director of French Canada Studies at McGill University as well as co-host of the CBC's public affairs program "This Hour Has Seven Days," will speak in the ballroom of the Hotel Vancouver after the Association's annual meeting beginning at 6 p.m.

His topic is "Canada . . . 1, 2, 3?" He will describe the "melting pot" concepts of Canadian society and explore the subject of cultural diversity.

Special guests at the meeting will be graduates of McGill College, UBC's forerunner, and the UBC class of 1916, this year celebrating its fiftieth year of graduation.

Tickets, at \$5 per person, are available through the UBC Alumni Association office in Brock Hall, CAstele 4-4366.

NOTICE

Notice is hereby given that the Annual Meeting of the Alumni Association will be held at the hour of 6:00 p.m. on Wednesday, May 11, 1966, in the Ballroom of the Hotel Vancouver, Vancouver, B.C.

Two members of the Association may nominate persons for the elective positions on the Board of Management pursuant to Section 8 of the By-Laws of the Association. All nominations must be accompanied by the written consent of the nominee, and be in the hands of the Director of the Alumni Association, 252 Brock Hall, at least seven days before the date of the Annual Meeting.

T. HOLLICK-KENYON,
Director.

CHEMISTRY PROFESSOR FINDS:

Reactions Don't Stop in Frozen Solutions

A generally-accepted belief that many chemical reactions slow down or cease at low temperatures has been disrupted by a University of B.C. chemist.

Dr. Richard E. Pincock has shown, in fact, that some kinds of chemical reactions are actually speeded up when solutions are frozen.

The studies are described by Professor C. A. McDowell, head of UBC's chemistry department, as "outstandingly original in conception."

He said the experiments may have far-reaching consequences not only in chemistry, but in biochemistry and geochemistry as well.

REACTIONS STOP

Dr. Pincock's work, and that of other scientists carrying out similar experiments, is relevant to such things as the preservation of human tissues and organs, the storage of foods, and the question of whether life may exist (or even originate on other planets) at low temperatures during freezing conditions.

The underlying assumption involved in freezing is that chemical reactions which take place at normal temperatures are either slowed down or stopped completely.

"What we can say with certainty," says Dr. Pincock, "is that far from ceasing, many chemical reactions may actually be speeded up in the frozen state."

Dr. Pincock has not undertaken any studies of frozen foods or tissues but he does feel that scientists involved in these areas will have to alter their thinking radically on these subjects.

Dr. Pincock began his work on frozen solutions in 1963 when he was studying the mechanisms involved in the decomposition of an organic peroxide called t-butylperoxy-formate, which broke down when heated to a temperature of 90 degrees centigrade.

DECOMPOSED

Some solutions of the peroxide were kept in a chemistry department refrigerator, and when removed for further experiments were found to have decomposed.

"Not only had the peroxide decomposed but it had done so in a

much shorter time than would have been the case if heated to 90 degrees centigrade," Dr. Pincock said.

STARTLING RESULT

"Chemically, this was a startling result," said Dr. Pincock. "Since then, however, we have confirmed this result and noted it in several other compounds."

More recently Dr. Pincock has been concentrating on trying to explain why decomposition is speeded up when solutions are frozen.

He thinks he's found the answer. It lies in the fact, which Dr. Pincock has confirmed through a complex analysis involving a technique known as nuclear magnetic resonance, that even when solutions freeze, there remain microscopic areas of solution invisible to the naked eye.

In these microscopic areas of solution the chemical reactions necessary for decomposition can proceed faster because the components of the reaction are concentrated.

"It's as though you put two reacting agents in an enormous room," said Dr. Pincock. "Under these conditions, which are analogous to the agents being in an unfrozen solution, the chances of a collision and a reaction are reduced."

SMALLER VOLUME

"If, however, the agents are brought together in a much smaller volume, which is analogous to freezing the solution, the reaction takes place in a shorter time because of concentration."

So far Dr. Pincock's research has concentrated on simple compounds, but this summer he plans to extend his work to investigate more complex reactions.

The scientific community, however, has already noted Dr. Pincock's work with interest. Every week he receives requests for copies of his research papers, many of them from scientists who are involved in such practical areas as food technology.

Grants from the National Research Council and the Petroleum Research Fund of the American Chemical Society have aided Dr. Pincock's work in the past. Recently he received additional support from the United States Air Force Office of Scientific Research.



VIALS OF FROZEN solutions which have yielded some remarkable results are scrutinized by Dr. Richard Pincock, left, and graduate student Thomas Kiovsky. UBC Extension photo.

Contractor Named for Music Bldg.

The Board of Governors has authorized the award of a \$2,199,000 contract for a new University of B. C. music building to Burns & Dutton Construction Co., lowest of six bidders.

Construction is expected to start in early summer. The building is the third in the Norman MacKenzie Centre for Fine Arts being developed at the north end of the campus.

It will be the fifth construction project started in UBC's \$30 million, five-year building program, partly financed by the Three Universities Fund which resumed canvassing recently.

Other contributors to the music building are the provincial government and the Canada Council which has granted \$600,000 for this project.

Though the building was listed by the Three U's Fund in the summer of 1964 at \$1.5 million, UBC Bursar William White said the contract price is not out of line.

"The \$1.5 estimate was made early in the planning," he said. "Refinements and special necessities which became evident as planning progressed, and the addition of underground parking and storage space, have resulted in today's cost."

The contract calls for 76,022 square feet—58,465 finished and 17,557 unfinished.

Architects for the four-storey, air-conditioned building, which will accommodate about 300 students, are Gardiner, Thornton, Gathe & Associates.

The lower two floors will contain a recital hall for chamber music performances seating 285 persons, a large rehearsal hall for orchestra, wind ensembles and opera workshops, a small choral rehearsal hall, practice rooms and administrative offices.

The upper two floors will have about 30 teaching studios, theory and music history lecture rooms, practice rooms, a music library seating 100, seminar and listening rooms and a student lounge.

When completed the department will move from its present scattered accommodation in an old forest products building, five army huts and a converted agronomy barn.

\$9 Million Budgeted for Capital Construction

The University of B. C. has budgeted \$8,947,326 for capital construction and campus improvement during the 1966-67 fiscal year.

The Board of Governors has given approval in principle to the program, which covers the third year of UBC's five-year, \$30 million capital improvement program.

The 1966-67 program will be financed almost entirely out of provincial construction grants and public contributions through the Three Universities Capital Fund Campaign. It also includes \$300,000 of a \$600,000 Canada Council grant toward a new music building and \$78,000 from the UBC Development Fund of 1957-58.

BORROWING PLANNED

Financing plans include borrowing of \$5 million, to be repaid from proceeds of the Three Universities Fund. The borrowing has been authorized by provincial order-in-council, as required by the Universities Act of 1963.

The \$8,947,326 program provides \$7,088,254 for continuation and completion of projects underway, which will bring close to completion three major projects undertaken during the summer of 1965; the forestry-agriculture complex, facilities for the faculty of dentistry, and a 3,000-seat replacement stadium.

It provides as well a substantial portion of the music building and for continuing development of agricultural and athletic fields.

MAJOR EXPANSION

The budget provides \$1,227,318 for new projects which are subject to final scrutiny and approval. Among them are a start on the building for metallurgy and a major expansion of the biological sciences building.

An amount of \$403,000 for campus development involves expansion of roads, sewers, grounds and parking (a net increase of 221 parking spaces).

Principal groupings of 1966-67 expenditures are listed in the box below.

CONTINUATION AND REPLACEMENT—	
forestry-agriculture, dentistry, music, replacement stadium and field development	\$7,088,254
NEW PROJECTS—	
metallurgy and biological sciences addition	1,227,318
CAMPUS DEVELOPMENT—	
roads, sewers, grounds, parking	403,700
CONSULTANTS AND PLANNING—	
campus development and architect fees	84,000
	\$8,947,326

\$100,000 Gift for Research

A gift of \$100,000 in memory of the late Alan H. Williamson has been made to the Health Sciences Centre at the University of British Columbia.

In making the gift, Mrs. Alan H. Williamson, of 2008 South West Marine Drive, dedicated it to "research and support, particularly in the early detection and prevention of mental deficiency in children."

Mr. and Mrs. Williamson shared a long-standing interest in work in the field of mental retardation among children.

UBC President John B. Macdonald said, "This is an important gift and will enable the University to accelerate its progress in relation to the problems of the detection and prevention of mental deficiency in children."

Dean of Medicine John F. McCreary said: "Impressive progress has been made already in the new field of prevention of mental retardation. It has been demonstrated that congenital defects of metabolism, when present at birth, will lead to mental retardation unless they are recognized early."

"In one group of cases, the failure of the new born to digest and metabolize certain food elements produces substances which are damaging to brain tissue. If these patients can be recognized early, and their diets modified so that none of the potentially poisonous material is included, mental retardation can be prevented."

"Pioneer work would indicate that there may be many as yet undiscovered compounds which have similar effects."

"Mrs. Williamson's gift will encourage and strengthen the research which is already underway in this field at the medical school of the University of B.C."

UBC Reports

MARCH-APRIL, 1966
VOLUME 12, No. 2

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