

JULY - AUG., 1964

# U BC REPORTS MEDICAL HISTORY IS MADE

Canadian medical history was made July 6 with the announcement by the federal government of a \$4 million grant towards construction of the \$18 million Health Sciences Center at UBC. The grant is four times the normal federal contribution to hospital construction.

Dean John F. McCreary said working drawings for the center would be completed within two years, and construction would take three years.

The Hon. Judy V. LaMarsh, minister of national health and welfare, said in the House of Commons that the UBC center was "a special pilot project, outside and apart from our health grants program."

She continued: "The development of such a center at the University of British Columbia has been under study for a number of years. It will establish a new concept in the training of the health professions and has been strongly endorsed by medical health educators.

"The amount authorized by the government, which is conditional upon at least an equal amount being provided by the provincial government, will be available in instalments as planning and construction progress. It is expected that up to two years' planning will be required before construction can begin.

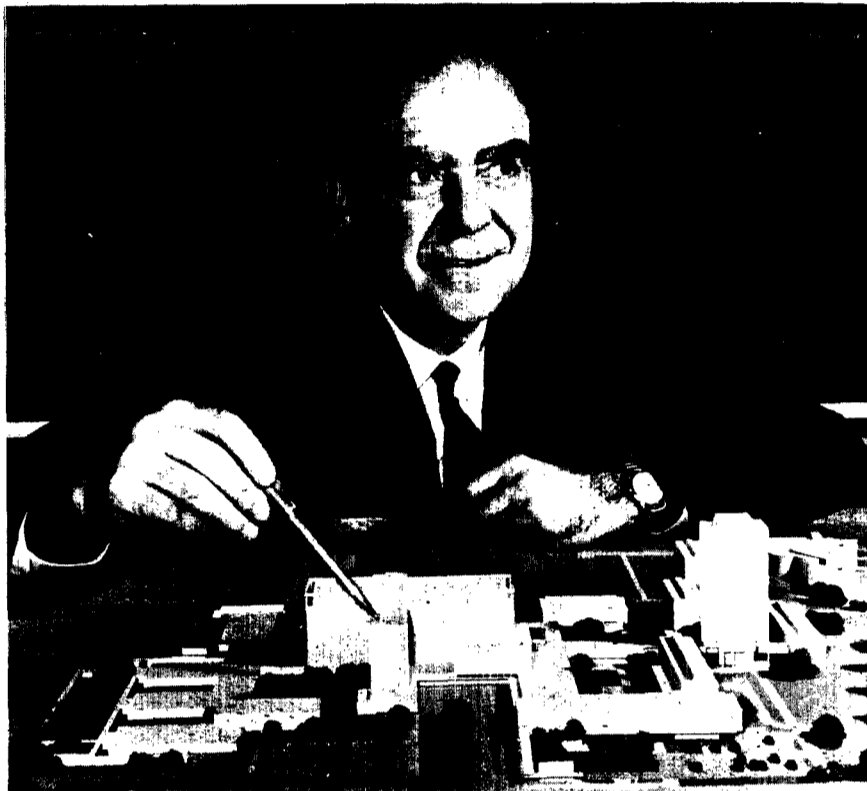
"The new center will be primarily a teaching institution, but will also provide a 410-bed hospital with extensive research facilities. It is also to be used for the referral of patients needing the special services and facilities contained in such a unit.

"In authorizing this provisional grant the government is aware of the importance of the teaching pattern developed at this university in providing common instruction facilities for all health provisions, doctors, dentists, pharmacists, physiotherapists, occupational therapists, social workers and psychologists.

"This team approach to medicine is considered a major advance in medical education and should have an important impact on the quality of health care, particularly in the face of future developments regarding the provision of health services. The improvement in the method of teaching should also encourage the entry of more young people into the health professions.

"This pioneer project may well establish an important pattern for future development and the government, for this reason, considers that a special grant for this im-

Mr. Basil F. Stuart-Stubbs,  
4243 W. 14th Ave., BA 52  
Vancouver 8, B. C.



DR. JOHN F. McCREARY, dean of medicine at UBC, is shown with a model of the proposed \$18 million Health Sciences Center, which received a history-making grant of \$4 million from the federal government in July. Working drawing for the center will take two years to complete and construction will take a further three years. Balance of funds for construction of the center will come from the provincial government, private sources and foundations. Photo by B. C. Jennings.

portant purpose is fully warranted."

The normal \$2,000-a-bed federal grant to general hospitals would have given UBC less than \$1 million. Instead UBC will get \$4 million, or four times the normal grant.

UBC's dean of medicine, Dr. John F. McCreary, said that for the first time the federal government had recognized the much higher cost of teaching and research hospital construction compared to general hospital construction.

An immediate approach will be made to the provincial government for a grant, Dean McCreary added.

B.C.'s health minister, the Hon. Eric Martin, said the provincial government will have to decide a new cost-sharing formula before making a grant for the teaching hospital.

The provincial government's present cost-sharing formula for general treatment hospitals is 50 per cent of bed construction costs, and one-third of furnishing and equipment costs.

Because the new hospital will be for both teaching and research, it falls outside the scope of the general hospital formula, Mr. Martin said.

UBC has already received a number of gifts from private sources and foundations to aid in the planning and construction of the center.

The largest of these is a \$3.5 million grant from Mr. P. A. Woodward of Vancouver. With interest, the grant will increase to \$4 million.

Other large grants have come from the Nuffield Foundation — \$150,000; the John and Mary Markle Foundation — \$40,000 and the Kresge Foundation — \$20,000.

## \$40.7 million pledged for buildings

The B.C. government will provide a total of \$40.7 million over the next five years for buildings at the three public universities, Premier W. A. C. Bennett has announced.

The Premier, speaking at the inaugural meeting of the convocation of Simon Fraser University on June 16, also announced that the three universities — UBC, Simon Fraser and Victoria — would undertake to launch a joint campaign to seek public contributions for buildings totalling \$28 million.

Active solicitation for the joint campaign will take place for one year, with pledges payable over five years.

Premier Bennett told the convocation meeting: "The government has made known to the universities that they will receive over the next five years \$40.7 million for capital purposes."

He added: "This is not subject to matching money. We will give this money whether there is a matching amount or not."

The government's commitments, though not specified at the Simon Fraser convocation meeting, are as follows: UBC, \$18 million; Simon Fraser, \$18 million; University of Victoria, \$4.7 million.

Referring to the joint capital fund drive to be conducted by the three universities, the Premier said the \$28 million, or any proportion thereof raised, would be divided as follows: UBC, 42 per cent; Simon Fraser, 42 per cent; University of Victoria, 16 per cent.

If the \$28 million is raised, it would provide UBC and Simon Fraser with \$11,760,000 each, and Victoria with \$4,480,000.

The government grants, plus a successful fund drive, would guarantee UBC a total of \$29,760,000 for capital construction for the next five years — a period in which UBC's requirements have been set at \$30 million.

Premier Bennett specified that the first \$4 million received in cash from the fund drive would go to Simon Fraser University. He made it entirely clear, however, that an adjustment would be made in the latter years of the five-year pledge period to provide that the \$4 million would be part of Simon Fraser's 42 per cent share.

Private donors, the Premier said, would be free to earmark contributions to specific institutions. Final details of the campaign are being worked out.

President John B. Macdonald said the statements concerning the joint campaign made by the Premier were essentially those agreed on previously by the three universities.

(For a picture of UBC's building program, past and future, turn to page three).

## alumni back drive

Premier Bennett's announcement of a joint campaign for university building funds has been warmly welcomed by the president of the UBC Alumni Association, David M. Brousson.

Commenting on the premier's announcement he said, "The Alumni board of management has already gone on record as favouring one unified appeal in B.C. for the capital funds for the three public universities. We earnestly hope that all alumni, the general public, and the business community will respond to this campaign."

UBC alumni responded well to the 1958 Capital Gifts Campaign, which realized over \$10 million to the Development Fund, and played a major role in raising this money. Since the release of the Macdonald Report, the Alumni Association has urged that all facets of higher education be developed according to a master plan, and the projected campaign will be a major factor in accomplishing this objective.

1  
U.B.C. REPORTS  
VOLUME 10 — No. 4  
JULY - AUGUST, 1964

# PRESIDENT REVIEWS HIS FIRST YEAR

*(What follow are excerpts from the main essay in the report of President John B. Macdonald to the Board of Governors and the Senate of UBC for the year 1962-63).*

Two developments were of particular educational importance in 1962-63. The first was that the University of British Columbia and the Province of British Columbia came to grips with the problem of growth. In 1961-1962 the total enrolment in British Columbia beyond Grade 12 was less than 17,000 students. Every prediction indicated that the number would increase to 35-40,000 by 1970. What is happening in British Columbia is happening all over Canada and, indeed, all over the Western world. Soaring birth rates following World War II and the "revolution of rising expectations" are placing on the universities and colleges of today and the future demands of unprecedented magnitude.

When I arrived at the University of British Columbia in July 1962, the most urgent task, clearly, was to provide a comprehensive plan for the development of higher education in the province. With the approval of the Board of Governors and the Senate of the University, and with the help of a small group of able associates, I began immediately the preparation of a report on HIGHER EDUCATION IN BRITISH COLUMBIA AND A PLAN FOR THE FUTURE. Completed by Christmas and published in January, it established a platform for vigorous discussion concerning higher education that continued throughout the province for the rest of the winter and the spring. The document was adopted by the Board of Governors and the Senate as the official statement of the University of British Columbia in respect to the future of higher education in British Columbia; it was endorsed by the Council of Victoria College and by a number of other groups representing educational interests or municipalities. The Government acted with commendable despatch by passing legislation in the spring of 1963 to implement most of the recommendations.

Because the report is available to the public its contents need not be reviewed in detail here. Its principal recommendations, however, are of such importance to the future of the University of British Columbia that they must be summarized briefly.

\* \* \*

The recommendations are built upon two prerequisites, each fundamental to the attainment of excellence in the higher education of this province: (1) there must be diversification of opportunity in the kinds of educational experience available and in the places where it can be obtained; (2) institutions must be independent in the determination of objectives, of requirements for admission, of standards, of selection of staff, of curricula, of administrative structure, and of all the other policies that contribute to the operation of a college or university. These prerequisites, which are discussed at length, comprise the basic philosophy of the report.

The resulting proposals envisage two kinds of institution: (1) universities and four-year colleges offering programmes leading to degrees for students with the necessary ability; (2) two-year colleges offering a variety of programmes beyond Grade 12. Specifically, the report recommends, in addition to the comprehensive University of British Columbia, the establishment of two independent four-year colleges (Victoria College and a new college in the Western Lower Fraser Valley) to concentrate their efforts upon undergraduate education in Arts and Science and upon teacher-training, and three two-year colleges, to be placed in the Okanagan Valley, in the Kootenays, and in metropolitan Vancouver. That several more two-year regional colleges will be needed by 1971 was also recognized.

Clearly, the cause of higher education will not be well served if the several contemplated institutions exhibit widely varying standards and enter suicidal competition for funds. To guarantee orderly academic development, while at the same time protecting independence, the master-plan recommends the creation of an Academic Board, which will be representative of the universities and colleges and advisory to them. To ensure systematic and equitably conceived and distributed financial support, the report presses for the appointment of a Grants Commission, the function of which would be to appraise needs and advise the Government. This Commission would study estimates, make a combined submission to the Minister of Education, and, finally, assume responsibility for distribution of funds.

The most controversial and to many the most alarming aspects of the report dealt with the estimated costs of higher education for British

Columbia over the next few years. In 1971-1972 the operating expense will reach, according to these computations, \$85,000,000 for an enrolment of 37,000 students. The capital outlay demanded, apart from the University of British Columbia and Victoria College, was calculated at \$14,000,000 up to 1971; but the figure is now known to have been an under-estimate and more recent information indicates that the true needs will be substantially higher.

After the publication of the report, the Provincial Government lost little time in passing "An Act Respecting Universities" to replace the former legislation. The new Act provides for three public Universities: British Columbia, Victoria, Simon Fraser, each one independent; it also allows for the establishment of regional colleges. The recommended Academic Board has been accepted but in place of a Grants Commission the Minister of Education has been empowered to appoint an Advisory Board, which will counsel him concerning the division of the Government's grants among the Universities; given able membership and co-operation from universities and Government, it can serve a useful purpose.

The second important event of the year was the great debate concerning the financing of the University of British Columbia. The press and radio presented this as an argument between the University and the Government of the province. In fact, however, the discussions were of more profound significance and at the same time far less sensational than much of the public comment implied. What was the real significance of the debate? The CARNEGIE CORPORATION QUARTERLY made the point when it observed that the notion that politics and education should



DR. JOHN B. MACDONALD

not have anything to do with each other is based on a misunderstanding both of politics and of the rôle of education in a democracy and how that rôle is determined. Public education is paid for by public funds.

The decision about how much of the public purse is to be devoted to education is ultimately a political decision. Any society, be it county or country, must decide how much it will spend on public benefits and how much it will allocate of the total to each area. How should a society make these decisions? How much for education? For hospitals? For welfare? For roads? For industrial developments? For family allowances? For transportation services? For pensions? A society makes its decision wisely by seeing that its members are well informed and well educated about the implications of all the decisions that must be made. The educational process goes on in the public forum.

\* \* \*

What must never be lost to view is not that public money supports public education but rather that education is one of many vital concerns of society. Society will make better judgments about how vital education is when the members of society understand the nature of education; that education is indispensable to our economic welfare, that education is a means to a richer life, that education is inseparably a part of the scientific revolution, that education must supply highly qualified specialists in hundreds of fields important to all of us, that education is big business occupying the lives of thousands of the country's ablest citizens, that education is faced with enormous shortages of qualified teachers and professors, that education requires larger libraries and increasingly expensive instruments, that education must compete for trained minds in a condition of shortage that is world-wide, that good education cannot be bought cheaply, that education requires more financial support than we have so far been willing to advance.

The great debate did much to make these facts clear to British Columbians. Hundreds of thousands of citizens learned for the first time of the crisis in higher education. Conferences and seminars were held by countless interested groups throughout the province. Newspapers, radio, and television discussed the issues of higher education on a scale never before achieved. The students of the University of British Columbia in

their "Back Mac" campaign took their story of what higher education means to them and what its needs are to every corner of the province. Their achievement in obtaining 232,000 signatures to a statement of the goals and needs of higher education showed that public awareness had been brought to new and rarefied heights. This new awareness is the most spectacular and beneficial gain of the debate and of the campaign.

The publication of HIGHER EDUCATION IN BRITISH COLUMBIA and the adoption of its principal recommendations by the Government have notable implications for the University of British Columbia. No longer is this University responsible for all higher education; no longer is this University faced by the necessity for unlimited growth. The University has now an opportunity to define more precisely the rôle that it should play in the province's educational system.

\* \* \*

The University will continue to offer undergraduate education. Indeed, for a few years, until other institutions are in a position to assist, the numbers enrolled in undergraduate education will continue to increase. Nevertheless, a limit can at least be foreseen. Simultaneously, the University will need to strengthen and enlarge its graduate programme; and it will be responsible for virtually all professional education in British Columbia. Growth of the Faculty of Graduate Studies in particular must now be encouraged in view of the acute paucity of qualified teachers and professors for schools and universities, and of specialists for business, industry, and government, not only in British Columbia, but throughout Canada and the rest of the Western World. The National Research Council of Canada has estimated the needs for full-time instructors for universities and colleges for the year 1970 at 25,000. That is approximately 15,000 more than hold appointments at present. No Canadian university can boast of a graduate programme that is large enough in the face of the demands.

The new position of the University in the provincial educational system raises many questions. What should be the ultimate size of the undergraduate enrolment? How large should the Faculty of Graduate Studies become and how fast should it grow? What will be the demands for professional education? What programmes belong here and what can and should be undertaken more effectively elsewhere? What changes are wise in the requirements for admission? In what ways can the quality of education in British Columbia be improved? What will all the innovations mean for the University Library?

These and other questions, the sequel of a vigorous campaign, cry out for attention. The University of British Columbia has already begun a second campaign, this time to seek the answers.

\* \* \*

This essay has so far concentrated upon higher education in the province, the public debate, and the academic effects of what has often been referred to as the crisis. But the impact of change has also been experienced by the members of the Faculty and has led to adjustments in administrative machinery.

The modern large university, into which category the University of British Columbia falls, is a complex organism, a far cry from the traditional "Groves of Academe" and the ivory tower. Many older members of the Faculty can look back wistfully to the good old days of the quiet campus, the scholarly retreat, and the measured pace. Those days are gone. "Bigness" has become a characteristic of the University and the pace of life on the campus has quickened. We must ask ourselves how we may live with bigness. How can hundreds of members of the Faculty, dozens of Departments, numerous Schools and Faculties, all with specialized outlooks, work together most effectively? How should we best devote our efforts to academic achievement? How are we all to be cognisant of the worth-while ideas being generated and how are we to debate them effectively? How shall we develop and maintain loyalty to an institution in a day when more than one professor is behaving like an itinerant preacher, rootless and responding to the call of golden opportunity? The obvious initial answer is that we can accomplish none of these things unless we think they are of the utmost importance. Happily, most members of the Faculty of the University of British Columbia, in my short experience, do believe in their importance.

Now it is the task of the administration to organize the activities of the University in such a way as to place in the forefront what is truly important. Administration is not an end in itself; it should have no independent existence; it should be the servant of the primary goals. I suggest that the key to good administration is individual leadership, at every level.

Leadership in academic administration is not to be confused with dictatorship. Leadership implies consent and support. It implies consultation, persuasion, open-mindedness, and forthrightness. Dictatorship is synonymous with an authoritarian approach, lack of consent, lack of consultation, and, usually, some form of deviousness, often intended to give the illusion of democracy. If the University can respect and use the traditional and legal structure for administration made available to it by the Act, we shall all find ample room for leadership, for consultation, for widespread discussion, and for that all-important intangible quality — the feeling of belonging.

# THE SHAPE OF THINGS TO COME

President John B. Macdonald recently outlined to the Friends of the University the pattern of building on the campus since the war, and the requirements to be met by a new five-year building program.

Some highlights:

- UBC will require a building program to cost \$30 million-plus during the years 1964-68, and has joined with Simon Fraser University and the University of Victoria in an appeal to the public for contributions. The program will add an estimated 1 million square feet to the present 3 million-plus square feet of space on the campus.

- The present UBC plant was built in three stages. Two permanent buildings, both since extended, the Library and the Chemistry building, plus a group of "semi-permanent" stucco-frame buildings, were erected in the 1924-25 period, when UBC moved to the campus from Fairview. All are still in vigorous use; the demands of a constantly growing student body and faculty will require retention of the 39-year-old semi-permanent buildings, with whatever modernization is economic, for many years to come.

- Nearly all the army huts brought to the campus at the end of the war for emergency use are still in use, for housing as well as teaching space, despite extensive postwar building. About 10 per cent of UBC's 3 million square feet of classroom space is in army huts, which have many disadvantages and are going into their third round of 10-year repairs.

- The first round of postwar building, 1947-52, cost \$9.3, provided entirely by building grants from the provincial government, and increased teaching floor space to 1.5 million square feet.

- The second round, now being completed, cost \$35 million and brought floor space to the present 3 million square feet plus. Provincial grants provided for \$20 million for this program; federal grants (mostly Canada Council) provided for \$5 million; corporate and individual donors provided \$10 million plus through the UBC Development Fund. Of more than \$11 million pledged to this fund, \$10.3 million has been received. The provincial government has provided for \$9 million of \$10 million promised if the public donated as well; a final \$1 million is anticipated in the government's next budget.

- IN SUMMARY, since the war UBC teaching space has increased to SIX times its postwar size to accommodate FIVE times as many students (i.e. from 3,000 to 15,000), in FOUR times as many faculties and many additional schools. The capital cost has been \$45 million, and the present minimum replacement value is \$60 million.

UBC now requires another five-year building program — as noted above — to cost \$30 million-plus. It will provide:

1964-65

- A multi-purpose Commerce-Arts building, costing \$2,538,000, built in 1964-65, to accommodate the departments of psychology, an-



**CONSTRUCTION WORKER** Gordon Valough strides across empty space at the rear of UBC's library, currently being filled in to provide additional stack space, reading room accommodation, and private reading and study cubicles. An additional 44,000 square feet of floor space will be added to the library, and shelf space increased to provide for a total of 1,000,000 books. Total cost of the project, which includes other interior improvements to simplify library organization, is \$866,500. Architects are Toby, Russell and Buckwell. Photo by Brian Kent, Vancouver Sun.

thropology and sociology, economics and political science, the Institute of Industrial Relations and the Faculty of Commerce and Business Administration.

- An Education building, to cost \$900,000 to serve a growing Faculty of Education which is training teachers for elementary and secondary schools.

- A Dentistry building and basic sciences building, to cost \$4,229,000. Funds for a Faculty of Dentistry were provided in 1962-63, and recruitment of staff is underway. First students will begin in September, 1964.

- A Library addition, to cost \$972,000, provide space for 500,000 more books and 350 additional seating spaces. Construction is now underway.

1965-66

- The Forestry-Agriculture complex, to cost \$3,427,000 and bring

together these compatible faculties, now housed in several semi-permanent and temporary buildings.

- A Music building, to cost \$1,585,000, including underground parking, to bring into one building a department now scattered among several buildings.

- A Metallurgy building, to cost \$1,580,000 and bring this department together out of several inadequate buildings — including a wooden building housing very high-temperature furnaces.

- An addition to the Biological Sciences building, to cost \$6,000,000 and provide additional areas for biology and botany, zoology, fisheries and oceanography.

1967-68

- Completion of the Applied Science complex to provide for civil and mechanical engineering

and for faculty offices, laboratories and classrooms.

- Smaller improvements and contingencies round out the estimated cost to \$30 million plus.

1968-69

- A Social Work building, to cost \$525,000.

General services and campus development, plus smaller improvements and contingencies, round out the estimated cost to \$30 million.

The new buildings are required to:

1. Cope with an inevitable growth in study body which could rise to 19,400 by 1966 (until Simon Fraser University relieves the pressure) and 22,000 by 1973, due to the rise in population of university age.

2. To group faculties, schools and departments in proper, modern accommodation, and abandon as many huts as possible.

3. To provide for a higher percentage of students in graduate and professional training, who require larger floor space per student, due to the increased use of labs, and specialized equipment. Growth of the library is also essential.

UBC does not intend, however, to become largely a professional school. In the foreseeable future, it will remain the only university in B.C. doing substantial graduate or professional training. But UBC will continue to take a full share of undergraduate (i.e. four-year-degree) students.

The aim is to raise the present 13 per cent of the student body in graduate or professional training to 25 per cent by 1973.

	1963-64	1973-74
Four-year students	12,817	16,500
Graduate and professional students	1,897	5,500

More graduate training is essential to provide university teachers with Ph.D.'s, rapidly becoming the accepted standard. UBC will require an increase from 870 teachers in 1963-64 to perhaps 1,600 in 1973-74. A teacher is required for every three to four graduate students.

Why not limit the student body? First, a growing modern economy requires many more highly trained people. Second, UBC is raising standards to ensure that those admitted can benefit and have a good probability of graduating — to eliminate a condition where only 50 per cent of all students survive second year.

A matriculation average of 60 per cent — up from 50 per cent — is now required for admission to UBC. Enrolment projections are in spite of increased standards.

There is no idle space on the campus. The average use of all classroom space is 25 hours a week, but in classrooms requiring little equipment or preparation and cleanup, it can amount to 35 hours a week. These figures cover only winter daytime use: they do not include evening or summer use. Nor do they include that use of classrooms by approximately one-third of the student body which is studying at any given time.

## RELIGIOUS STUDIES EXPANDED AT UBC

Prof. William Nicholls has been named head of the newly-established department of religious studies in the faculty of arts, President John B. Macdonald has announced.

Prof. Nicholls joined the UBC faculty in 1961 to organize and develop courses in religious studies. The department now offers a major and an honours program in this area.

The president also announced that Prof. Arthur E. Link, associate professor of Chinese and east Asian thought at the University of Michigan, would join the UBC faculty to teach two courses in Buddhism.

Prof. Nicholls said the appointment means that UBC is the only university in Canada to offer a

program with a scholar working in the field of Buddhism exclusively.

Professor Link will teach a general course in Buddhism and a seminar in Mahayana Buddhism, a branch of the religion which has developed largely outside India. He will also be responsible for building up resources for specialized study in Buddhism leading to more advanced work.

Professor Link is a graduate of the University of California where

he received his bachelor and master of arts degrees in far east history and his doctor of philosophy degree in Oriental languages.

He carried out graduate work in Chinese philosophy and taught in Peking, China, from 1948 to 1950 on a Fulbright fellowship, and has received a number of grants for advanced work on Buddhism and Oriental languages.

The addition of Professor Link, along with other growth in the department, will bring to six the number of persons teaching in religious studies for the next session. Last year 150 students were enrolled for the eight courses offered.

When the department is fully developed about half the courses offered will deal with Christianity,

and the balance will deal with Buddhism, Indian religion, and the Jewish faith.

A unique collection of books on Buddhism will be available in the UBC library next year to students on the subject, Professor Nicholls said. A collection of 2000 volumes on the subject is being assembled by Mr. Carroll Aikins, of Naramata, B.C. for donation to the UBC library.

It will be the only substantial collection in Canada, and will include almost every book worth reading on the subject in the English language.

Another grant from the Leon and Thea Koerner Foundation is being used to purchase the nucleus of original sources in Buddhist literature.



NEW TEMPORARY HOME of the UBC school of social work, being surveyed above by the school's head, Prof. William Dixon, is the \$500,000 house of the late F. Ronald Graham on Marine Drive below the UBC campus. The huge house, with a sweeping view of the Gulf of Georgia and mountains to the north, will be used for lectures and

seminars with only minor alterations. Some features of the house, such as the swimming pool, not shown here, will be inoperative during social work's occupancy. School will move to permanent campus building planned for construction in 1968. Vancouver Sun photo by Deni Eagland.

## NO ERRORS WITH NEW UBC COMPUTER

UBC has installed a \$1 million electronic oracle which cannot think — but never makes a mistake unless it breaks down. The new IBM 7040 Processing System, which went into action in July at the UBC Computing Centre, leaves mistakes to those who ask it questions.

When there is an error in the data submitted to the new computer, its 600-lines-a-minute printer chunks out a brief ultimatum: "Execution deleted." The computer has handed back the problem to its originator for correction; he may spend days or weeks finding his error (or errors) before his problem goes back to the computer.

Not to err would be inhuman in preparing data for the computer. Most problems require those submitting them to write thousands of figures by hand on coding sheets. Minor errors are almost inevitable.

Computing centre supervisor Werner Dettwiler, 28 (a UBC graduate in maths and physics who joined the computer centre upon graduating in 1959), says it is not unusual for a major problem to be submitted "two or three times" before it proves error free.

When that happy moment comes, the computer will spin weeks of preparatory work through in perhaps three minutes and print its answer — along with its calculations — on the high speed printer. But it will not answer until the question is correctly put.

The answers the computer gives, says Mr. Dettwiler, "would be impossible to obtain by hand calculating methods."

Among its fantastic abilities, the new computer can:

- Store 32,000 figures of 10 digits each (enough to fill nine newspaper pages) and pluck out and use any one of those figures in eight micro-seconds (less than 1/100,000th of a second),
- Add up 60,000 figures of 10 digits each in one second,
- Read information back from

a magnetic tape at 60,000 characters a second.

The new IBM 7040 is rated as a medium-fast computer, ideal for university work. Mr. Dettwiler says it will speed up present computer operations at UBC "about 100 times."

It is UBC's third computer installation. The present IBM 1620, installed in 1961, has been working 24 hours a day, seven days a week. UBC also has been sending some of its overload of computer work to the University of Toronto.

Along with UBC work, the computer has handled problems for governments and private industry, and is willing to undertake much more outside work, says Mr. Dettwiler.

The IBM 1620 has helped with calculations for the new Port Mann Bridge, worked on studies by Vancouver City traffic planners on the probable effect on traffic of different freeway locations, and made calculations for the recently-installed new microwave system across Canada.

The new IBM 7040 will operate at first only a few hours a week, because of its much higher speed. But Mr. Dettwiler expects demand for its services to build up rapidly.

Mr. Dettwiler heads a computer staff of 14: six program analysts, two systems programmers, two assistant programmers, two key punch operators, and two computer operators. The staff aids in the preparation of data, feeds the computer, and gets back an answer — or an error message.

The problems come from many campus sources. UBC engineering departments require calculations; statistical and questionnaire analyses are sought by faculty members and advanced students in chemistry, mathematics, physics, medicine, psychiatry, psychology, political science, agriculture, and so on.

## alumni give more to '64 campaign

The Alumni annual giving campaign raised \$27,266.64 from 1726 donors during the first six months of its 1964 operations.

The number of donors at the half year mark is double the corresponding number in 1962 and up almost 400 over the same period in 1963.

The fund, which goes to meet many special needs at UBC, last year raised \$89,370.75 from 3,728 donors.

## therapists certified to practice

Certification ceremony for the first class in physical and occupational therapy in the school of rehabilitation medicine at the University of British Columbia took place June 19 in UBC's Buchanan building.

The 15 students were certified by the UBC faculty of medicine as having completed three years of study in the combined course in physical and occupational therapy.

They will be eligible to practice after joining the Canadian Physiotherapy Association and the Canadian Association of Occupational Therapists.

Dr. Brock Fahrni, director of the UBC School of Rehabilitation Medicine in the Faculty of Medicine, announced the names of those who have completed the course and introduced each student to Dean John F. McCreary, head of the medical faculty.

In 1965, the fourth year of the rehabilitation medicine course will be instituted, the completion of which will qualify students for the degree of bachelor of science in rehabilitation (B.S.R.).

## fitness study

UBC's school of physical education and recreation has been awarded a grant of \$6875 by the federal health department for a fitness study.

The UBC project is an analysis of arterial pressure curves at various levels of fitness.

## U BC REPORTS

Vol. 10, No. 4 — July-August, 1964. Authorized as second class mail by the Post Office Department, Ottawa, and for payment of postage in cash. Published by the University of British Columbia and distributed free of charge to friends and graduates of the University. Permission is granted for the material appearing herein to be reprinted freely. James A. Banham editor; Laree Spray Heide, assistant editor. The editor welcomes letters, which should be addressed to the Information Office, U.B.C., Vancouver 8.

## president names two deans

President John B. Macdonald has announced the appointment of Dr. Ian McTaggart-Cowan as dean of the faculty of graduate studies, and Dr. Vladimir Okulitch as dean of the faculty of science at UBC.

Dr. McTaggart-Cowan, presently head of the department of zoology and assistant dean of science, succeeds Dean F. H. Soward, who retired as dean of graduate studies June 30.

Dr. Okulitch, presently acting dean of science and head of the department of geology and mining and geological engineering, is the first dean of the faculty of science. He has been acting dean since July, 1963, when the faculty of arts and science became separate faculties.

The president said Dr. McTaggart-Cowan's background of research, University experience, and public leadership fit him ideally for the deanship of graduate studies at a time when UBC is faced with the problems of strengthening and expanding this rapidly growing area of work.

Dr. McTaggart-Cowan is an ideal choice for this post, the president said, because of his familiarity with several important areas of research and development in Canada, his many associations in the educational and public fields, his proven abilities in administration, and his capacities to deal with broad issues as well as his university work here and elsewhere.

Dr. McTaggart-Cowan was born in Scotland in 1910 and obtained his bachelor of arts degree at UBC in 1932 before undertaking graduate work at the University of California, where he received his Ph.D. in 1935.

Before joining the UBC faculty in 1940 he was with the provincial museum in Victoria as assistant biologist and assistant director. Dr. McTaggart-Cowan became a full professor at UBC in 1945 and was named head of the zoology department in 1953.

He has been assistant dean of the faculty of arts and science (later of the faculty of science) since 1959 and is currently a member of the academic board of the Province of British Columbia.

Dr. Macdonald said the committee to recommend a dean of science had deliberated for 15 months and considered the names of a great many candidates, both inside and outside the University.

In recommending Dr. Okulitch for this position, the president said, the committee felt it had found a person of established scholarship, leadership, and integrity to fill this important post.

The committee, President Macdonald said, feels that it has found in Dr. Okulitch an individual who will be a strong chairman, an advocate of improved teaching, a champion of the undergraduate program as well as a supporter of graduate growth, a cooperative and wise colleague on University councils, and a man who will generate among faculty members loyalty to UBC.

Born in Russia in 1906, Dr. Okulitch obtained the degrees of bachelor and master of applied science from UBC in 1931 and 1932. He was awarded the Ph.D. degree in geology and paleontology by McGill in 1934.

Before joining the UBC faculty in 1944, Dr. Okulitch taught at the University of Toronto and was employed as a consulting geologist by mining and oil companies and with the Geological Survey of Canada and the Quebec Bureau of Mines.

He has been head of the geology department at UBC since 1959 and served as a visiting professor at the University of California in 1954 and the University of Hawaii in 1963.