

UBC REPORTS

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UBC REPORTS CAMPUS EDITION

Thefts Bring Fines

UBC's crackdown on campus Bookstore thefts during the current winter session has so far resulted in six convictions in the University Endowment Lands magistrate's court.

Five persons, convicted of theft under \$50, were each fined \$50. A sixth individual, charged with fraud after changing a price ticket on a book, was also fined \$50.

Of the six persons convicted, only one was not a UBC student.

UBC decided to increase surveillance

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GRAPHIC record of the Amchitka underground nuclear explosion was recorded Saturday on a UBC seismograph. First seismic signal at extreme left arrived seven minutes, three seconds after the blast took place in the Aleutian Islands. Lines above the

recording of the Amchitka explosion represent normal seismic activity which went on prior to the receipt of the signals from the blast in the Aleutian Islands 4,000 miles from Vancouver. Distance between bumps in earlier lines represents one minute.

Four Signals Received From Amchitka Blast

UBC geophysicists got a "textbook picture" of the seismic signals generated Saturday (Nov. 6) by the five-megaton nuclear explosion in the Aleutian Islands, 4,000 miles from Vancouver.

A total of four records were made at UBC of the seismic signals from the blast 6,000 feet below the surface of Amchitka Island.

Three of the records were visual and the fourth was a numerical record of the seismic waves recorded on magnetic tape on a digital computer.

VISUAL RECORD

One of the visual records, taken from the drum of a geophysics department seismograph, is reproduced above and was described as a "textbook picture" of the four main seismic signals generated by the Amchitka explosion.

The first signal, at extreme left, and the one used to measure the magnitude of the blast, arrived at UBC exactly seven minutes, three seconds after the American nuclear device exploded at 2 p.m. Vancouver time.

Calculations made by UBC geophysicists minutes after the arrival of the signals showed that the Amchitka explosion measured seven on the Richter scale, a one-to-ten numerical scale used to indicate the severity of earthquakes.

The ground displacement caused by the blast at UBC was measured at one-third of one-thousandth of

an inch, about one-tenth of the thickness of the newsprint these words are printed on.

The first seismic signal to reach UBC came directly through the earth's crust. The second signal shown above bounced off the earth's crust once before reaching Vancouver, while the third had bounced off the earth's crust twice.

The fourth signal was reflected off the earth's core and travelled the greatest distance.

All four signals arrived within a space of about two-and-a-half minutes.

The time of arrival of the signals at UBC as well as the magnitude of the blast conformed almost exactly to predictions made in advance by UBC geophysicists.

The team that readied UBC equipment for receipt of the signals from the blast and performed the calculations consisted of Prof. R.D. Russell, head of the geophysics department; Dr. Ronald Clowes, assistant professor of geophysics; and UBC graduate Robert Meldrum.

CROWDS GATHER

The visual and computerized records of the signals will be used by geophysics graduate students and professors for research on the structure of the earth.

The interior of the geophysics building was crowded at the time of the blast with scientists and representatives of the news media, including a television crew from the National Broadcasting Co. in Chicago. One Vancouver radio station, CKLG, broadcast live from the building when the seismic signals were being received.

A television camera, trained on one of the seismographs recording the signals, was connected to a television set outside the building drew a crowd of curious students and faculty members.

UBC geophysicists also set up a seismograph at Cable Ten television in Vancouver, which broadcast the seismic signals as they were received.

Job Picture Gloomy

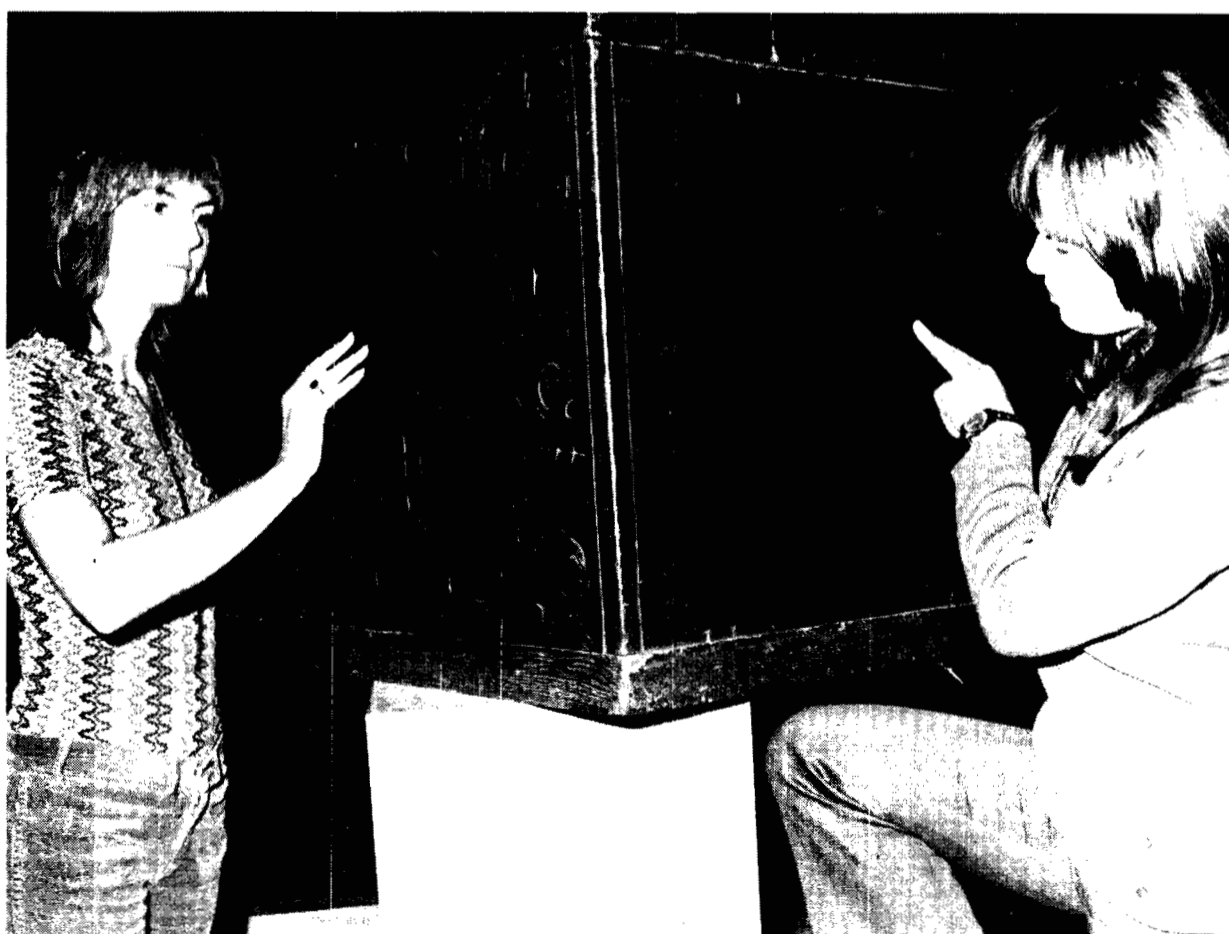
A recent federal government report paints a gloomy picture of job prospects for next spring's graduates of Canadian universities.

It indicates that many graduates, particularly at the bachelor's and master's degree levels, will have difficulty in finding jobs for which they are qualified. It suggests that prospects are brighter for PhD's as a group, although there will be a shortage of jobs in some disciplines.

The report, entitled *The Market Situation for University Graduates in Canada*, was prepared by the research branch of the Department of Manpower and Immigration.

The department warns that the report should not be "judged to have predictive characteristics not intended by its authors." But it says it is "anxious to

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Picture by UBC Photo Department

FOURTH-YEAR anthropology students Marci Vanziffle, left, and Marilyn Smith examine a rare, carved Haida Indian chest purchased for \$2,500 by Mr. Walter Koerner, of UBC's Board of Governors, and donated to UBC's Museum of Anthropology. A

single piece of cedar was steamed and bent to form the sides of the chest, which was used to store family heirlooms. Chest, which is more than 100 years old, may have been carved by the late Charles Edenshaw, a famed Haida carver who died in 1924.



DR. J.A. CORRY



PROF. WILLIAM ARMSTRONG



PROF. FRITZ BOWERS

UBC MAY PROVIDE RESEA

UBC appears to have a more articulated research policy than many other Canadian universities, according to a member of a national Commission to Study the Rationalization of Research at Canadian Universities.

Dr. J.A. Corry, former principal of Queen's University and one of two investigators on the commission established by the Association of Universities and Colleges of Canada, made the statement toward the conclusion of day-long hearings at UBC recently (Tuesday, Oct. 26).

Dr. Corry said Canadian universities ought to develop articulated research policies, "not in the sense that you freeze a grid on everybody, but that you have some kind of policy that you can point to if anybody raises questions about what's going on."

He continued: "I think that UBC seems to be gradually putting together such a policy both for its own internal affairs and also as a form of regional rationalization."

He said the commission was searching for a model that could be pointed to as an example of policy-making and asked UBC's deputy president, Prof. William Armstrong, who had been testifying before the commission, for additional details in writing for consideration by the commission.

The commission, which had visited six other Canadian universities before coming to UBC, will make recommendations on the mechanisms, structures and processes required to ensure the research undertakings in Canadian universities can be planned to serve, without undue duplication, both the advancement of knowledge and provincial, regional and national development.

Prior to Dr. Corry's remarks, Dean Armstrong had described to the commission various UBC policies for the efficient use of research funds and prevention of duplication.

POLICIES STATED

These policies were implemented, he said, through the establishment of graduate, interdisciplinary institutes within the Faculty of Graduate Studies and through co-operative arrangements with other western Canadian universities.

As examples of the latter development he cited the TRIUMF Project, a cyclotron being constructed at UBC by four universities and the federal government; the Western Canadian Universities Marine Biological Society (WCUMBS), a five-university organization that is in the process of developing a marine biology station on Vancouver Island; and Western Telescopes for Astronomical Research (WESTAR), an eight-university project in the field of astronomy.

He also outlined for the commission internal research policies which are followed by UBC. "All grant applications are scrutinized," he said, "to see that they meet university policy and all applications are subject to review by University committees when animal and human subjects are involved."

Prof. Armstrong said some faculty members felt UBC was building "a bit of a bureaucracy"

in this regard, "but we do feel that there is the possibility of invasion of privacy when human subjects are involved in experiments and that the physical and medical safety of human volunteers must be safeguarded."

Several major themes emerged from the briefs and testimony given to the commission during its visit to UBC. They were:

- Additional funds are needed to provide for research projects and the support of graduate students;

MORE LINGUISTS

- Wherever possible, decisions about what research projects are to be undertaken should be left in the hands of individual faculty members, not university administrators or government departments, and

- Funds for research should continue to be channelled through agencies and departments of the federal government rather than provincial governments, where the danger of reallocation of funds would arise.

UBC's Institute of Asian and Slavonic Studies suggested in a brief to the commission that the Canada Council "allocate annually something of the order of \$1,000,000 for research centres studying East Asia." The brief said the money should be divided between UBC, the University of Toronto and some university in Quebec.

The funds, the brief continued, would be used for the extension of library facilities, improvement of language training for researchers, research fellowships and increased services by research institutes such as the one at UBC.

Dr. John F. Howes, associate professor of Asian Studies, told the commission that more students must be trained in Chinese, Japanese and Russian to meet the challenge of expanding Canadian relationships with those countries.

A brief presented to the commission by Prof. Fritz Bowers, of the Department of Electrical Engineering, said that whatever steps are taken to develop more goal-oriented research and reduce duplication, "... it is most important that there remains freedom for reputable researchers in universities to follow their own convictions on the directions of their research."

The brief strongly recommended that research funds be granted to individual professors or groups of professors, rather than administrative officers of the university. "The individual researchers are usually more aware of topics worth pursuing and approaches likely to be successful," the brief said.

The brief also made a case for choosing projects with greater regard to national and local needs where the research is part of the educational program of the University and the training of graduate students.

The brief asked that more direction be given to research of this kind through the drawing up of a list of national needs by the federal government. "We are convinced that both faculty members and graduate students would respond to such a listing; after all, one of the motivations for entering the engineering profession is to be useful to society," the brief

RCH MODEL

says.

Prof. Bowers told the commission that the electrical engineering department had met several times in past years with local industrialists in an attempt to devise research projects which would be useful to them.

"Invariably these turn out to be very fruitless," he said. "We are quite sure that local industry does not know in what areas it could utilize help." He suggested that the only way to find out where help was needed would be for university personnel and graduate students to actually work in local industry and then develop projects based on observed needs.

The point that academicians should make decisions about which research is undertaken was reiterated earlier in the day in a brief to the commission from UBC's Department of Anthropology and Sociology.

The brief said: "Academic organizations should be involved in raising questions as to how research money is used, but should not be given the power to control which research is undertaken, and by whom. The best people to make decisions in their fields are academicians."

The brief continues: "... there is very great danger in giving any group, even within academia, the right to determine the direction in which research monies should go. We would prefer a lack of rationalization because the inherent dangers in directing what is to be studied, how and by whom, are far graver than whatever diseconomies may arise from not having clear policies — dangers of a loss of academic freedom."

Prof. Armstrong told the commission that he felt rationalization of research would be extremely difficult unless there is continued direct support from the federal government for the bulk of university research in Canada.

He admitted that the present system of grant distribution has its faults but was better than one in which all the money flows through the provincial government where it might be reallocated.

He told the commission that at the moment the provincial government provides only about one per cent of UBC's annual total of \$15,000,000 for research. He said that much of the support from the provincial government is for strongly mission-oriented projects.

The librarians of B.C.'s three public universities presented a brief to the commission which outlined the steps which had been taken to avoid duplication of book collections.

GRANTS ASKED

They advocated that the development of new programs of graduate study be regulated on at least a regional basis, that university libraries have representation on committees considering new programs and that approval of new offerings result in "immediate additional appropriations for the development of library collections...."

They also called for reestablishment by the Canada Council of a program of grants to university libraries for development of research collections.

JOBS

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make available such insights as it has "about the job situation.

Even making due allowance for the "preliminary" and "exploratory" nature of the study, the report is startling. Its major conclusions:

- There will be only one job requiring their qualifications for every two bachelor-level graduates next spring;

- Only one appropriate job will be available for every three graduates with master's degrees;

- In this buyer's market some masters may be hired for jobs that would normally be done by bachelors, thus further constricting the BA's job pool.

The Manpower report was intended as a projection of the job market situation for 1970-71 graduates. However, since the increase in both supply of and demand for graduates in 1972 are expected to be of the same order as in 1971, the study is considered to offer "a preliminary view of the 1972 situation."

PROJECTIONS MADE

These are some of the report's 1970-71 projections:

Forty-seven per cent of students graduating with bachelor degrees were "in excess" of the job market, with graduates in education, science and commerce and business administration the worst hit.

"In excess" doesn't necessarily mean without a job. It means without a job for which the degree was a prerequisite.

The under-supply of jobs for bachelor graduates affected every faculty. The job market for bachelor graduates was tightest in Quebec — where 65 per cent of bachelor graduates were "in excess" — and least acute in Ontario where 35 per cent of bachelor graduates were in excess.

There were fewer bachelor of arts graduates than jobs for them in the western provinces, according to the report, while BA graduates were in excess of the job market in the rest of Canada.

Commerce graduates were in excess in every province except Ontario.

About 70 per cent of students graduating with master degrees were in excess. The excess held for every faculty except engineering where supply and demand was balanced, and agricultural sciences, where there were more jobs than graduates to fill them.

Graduates with master's degrees in arts or commerce enjoyed an "excess demand" for their talents in the western provinces but were in excess supply in Quebec and Ontario.

Movement of bachelor or master degree graduates from one province to another had no significant result on the market.

The report, part of a series on the market situation for highly qualified manpower by the Department of Manpower and Immigration, cautions that the hiring pattern for bachelor and master degree holders may

THEFTS *Continued from Page One*

in the Bookstore in January, 1970, because of substantial losses due to theft.

Mr. Byron Hender, business consultant to the Bookstore and campus Food Services, said the full impact of the crackdown probably won't be known until the end of the current session. "But we have reason to hope that enforcement of the policy of turning over to the RCMP those persons caught stealing from the Bookstore will cut down the theft rate," he said.

The Bookstore has also curtailed its business hours while discussions are being carried on between the University and the Canadian Union of Public Employees, local 116.

The Bookstore had been open until 9 p.m. Monday through Thursday since the beginning of the current session. Because of the union dispute the store now closes at 5 p.m.

The union contract currently in force does not provide for a shift beyond 5 p.m. and the union is asking for double time for employees who work beyond that time.

The union insisted that the Bookstore revert to its original hours of opening — 8:30 a.m. to 5 p.m. — until the dispute is resolved.

be altered. Master degree graduates may be hired at the expense of bachelor degree holders.

The report is most qualified in its treatment of PhD's.

It measures the PhD market using a number of variables. Among them are markets which give first choice to Canadians; or in which universities hire Canadians and non-Canadians in the same ratio as in the past; or markets limited to PhD's or open to both PhD's and ABD's — students who have completed all their requirements for a PhD except their dissertation.

EXCESS DEMAND

In a market reserved for Canadian PhD's only, there would be almost two jobs for every PhD. There would be excess demand in the humanities in every field except theology, in all of the physical and biological and social sciences with the possible exception of psychology, and excess in engineering, though the excess would be minimal in chemical, mining, and metallurgical engineering.

If the same reserved market were also open to ABD's, from 6 to 23 per cent of available jobs would be unfilled.

The physical sciences and engineering would have excess supply, the biological sciences would appear to be in balance. The humanities and social sciences would have excess demand.

Chemistry would be 50 to 60 per cent in excess supply, mathematics 30 per cent in excess demand, electrical engineering 55 to 65 per cent in excess supply, economics 50 per cent in excess supply, languages other than German almost 100 per cent in excess demand.

There would be excess demand in business administration, commerce, political science, sociology and anthropology. Civil, mining and metallurgical engineering would be in balance.

In a market not necessarily restricted to Canadians, there would be overall excess demand for Canadian PhD's. In excess supply would be PhD's in chemistry, psychology and theology. German, history, economics, geology, education and all engineering fields (except civil engineering which would be in excess demand) would appear to be in balance.

If the same non-restricted market were also open to ABD's, there would be from 13 to 29 per cent overall excess supply. Over-supply in chemistry would be from 60 to 70 per cent, mathematics would seem to be in balance and the physical sciences generally would be in excess by about 35 per cent.

Engineering and biological sciences would be in excess supply, the social sciences would be mixed. Only in the humanities would there be overall excess demand.

Chemical and electrical engineering would be in excess supply; mining and metallurgical engineering in balance. Economics would show an excess supply of 70 per cent. Business administration, commerce, sociology and anthropology would be in excess demand.

The generally more pessimistic job outlook for physical scientists compared with engineers in the report is continued in two other studies by the Manpower and Immigration Department's research branch.

TWO REPORTS

One report estimates the market for physicists and the other for engineers in 1976.

The engineering market is likely to be in balance in 1976 "if current trends continue, and of course there is no certainty that they will."

The second report points to more physicists looking for jobs than the market can absorb.

UBC

REPORTS

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MR. KARL BURAU

Brief to Senate Referred

A brief containing a proposal for a compulsory program of general studies designed to broaden the educational horizons of all UBC students has been referred to UBC's 12 faculties for consideration.

The brief, which proposes that all students take 20 per cent of their academic program outside their field of specialization, was submitted to the Senate agenda committee by Mr. Karl Burau, honorary president of the Experimental College and a well-known campus figure in recent years.

Three UBC faculties have already rejected the proposal for the general studies program. Prof. William Armstrong, deputy president and chairman of the Senate agenda committee, said the proposal will be discussed at Senate if only a single UBC faculty feels it has merit.

He said the agenda committee had decided to refer the brief to the faculties because such a program "could not be imposed on the University by Senate. Proposals such as this normally originate in the faculties and are recommended to Senate for consideration."

Under Mr. Burau's proposal, students in the program leading to, say, the bachelor of arts degree, would take four courses in other faculties, such as Science, while engineering students would take three basic courses in the humanities and one in biological sciences.

UBC departments would develop one-year, basic courses for the general studies program. These would be designed to give a basic understanding of a subject and would not be prerequisites to higher-level courses.

Mr. Burau also proposes that his non-credit, Experimental College program, currently operating in the Student Union Building, would be one of the electives open to students under the general studies program.

No grades would be assigned for participation in the program. Students would simply pass or fail depending on their degree of participation in the program.

CONFERENCE SET

Approximately 600 teachers are expected to attend a three-day conference beginning tomorrow (Nov. 11) at Vancouver's Bayshore Inn sponsored by the science education department of the UBC Faculty of Education and the National Science Teacher's Association of the United States.

The theme of the 1971 conference, which continues until Saturday, will be the introduction of ecology and environmental science into teaching programs from elementary school to university levels.

'Awesome' Debater to Speak Twice at UBC

Mrs. Barbara Castle, one of the few women ever to hold a cabinet post in the British government, will give two Dal Grauer Memorial Lectures at the University of B.C. next Tuesday and Wednesday (Nov. 16 and 17).

Mrs. Castle, whose debating style on behalf of the British Labor Party has been described as "one of the most awesome sights that the House of Commons has to offer," will speak in the common block of the Totem Park Residences at 8:15 p.m. on Nov. 16 on the topic Britain Today.

The following day she will speak in UBC's old Auditorium at 12:30 p.m. on the subject Women in Politics.

A member of the British House of Commons since 1945, Mrs. Castle is noted for her controversial and outspoken statements on British and American foreign and domestic policies.

She criticized United States policies during the Korean war in the early 1950s and made headlines in 1958 when she was critical of British policies in connection with suppression of terrorist activities on the island of Cyprus. She has also been a vigorous opponent of South Africa's apartheid policies.

During her early years in the House of Commons Mrs. Castle was parliamentary secretary to the president of the Board of Trade and in 1949 and 1950 served as alternate British delegate to the United Nations General Assembly.

When Mr. Harold Wilson's Labor Government took office in 1964 Mrs. Castle was named to the cabinet as Minister of Overseas Development, set up to centralize Britain's aid programs.

The following year she was appointed Minister of Transport and overnight became the subject of much good-natured teasing in the British press because she does not drive a car.

One of her first acts was to impose a 70-mile-an-hour speed limit throughout Britain, a measure which provoked some protest from motorists. She also introduced a number of other measures designed to reduce motor accidents, including a compulsory blood alcohol test for drivers suspected of heavy drinking.

The daughter of a government tax inspector who edited a left-wing political journal, Barbara Castle grew up in an atmosphere of politics in the

northern British manufacturing town of Bradford. She joined the Labor Party at the age of 16 and was treasurer and secretary of the University Labor Club at Oxford University, where she was a scholarship student.

During the 1930s Mrs. Castle worked in



MRS. BARBARA CASTLE

London as a journalist and was elected to a local government position in one of London's boroughs.

Mrs. Castle was an active member of the Fabian Society, an influential Socialist society in England, and helped prepare its evidence on social insurance and allied services.

Many of her findings were incorporated into the famed Beveridge Report, which was the basis for the "cradle-to-the-grave" social security program implemented by successive British governments.

Remembrance Day Ceremony Set

Nine University of B.C. and community organizations will take part in traditional Remembrance Day ceremonies beginning at 10:45 a.m. in the University of B.C.'s War Memorial Gymnasium tomorrow (Nov. 11).

Representatives of each of the participating groups will place a wreath at the foot of the memorial wall in the main lobby of the gymnasium during the ceremony presided over by Major the Very Reverend Harry Lennox, honorary chaplain of the B.C. Regiment (DCO) and minister of Kerrisdale Presbyterian Church.

Mr. G.F. Fountain, president of the 196th Universities Battalion Association, will give the address at the ceremony and the scripture passage will

be read by the Rev. W.S. Taylor, principal of the Vancouver School of Theology.

The traditional Last Post will be sounded at 11 a.m. and followed by two minutes of silence.

Taking part in the ceremony will be representatives of the Canadian Armed Forces, 196th Western Universities Battalion Association, The War Amputations of Canada, Canadian Legion Branch 142, Sir Arthur Pearson Association of War Blinded of Canada, UBC, the Alumni Association, the University Employees' Union and the Alma Mater Society.

UBC's War Service books, containing the names of all students and faculty members who served in the First and Second World Wars and in Korea, will be on display following the ceremony.

Librarian Honored at York University

Prof. Samuel Rothstein, founder and first director of the University of B.C.'s School of Librarianship, has been awarded the honorary degree of doctor of letters by York University in Toronto.

Prof. Rothstein, who resigned as head of the library school in 1970 but continues to teach at UBC, was honored on Oct. 30 at a convocation marking the opening of the new \$6 million W.P. Scott Library at York University.

Prof. Rothstein was cited for his contributions to higher education and to scholarship in general and librarianship in particular.

Others who received honorary degrees at the same convocation were the Hon. Gerard Pelletier, Canada's secretary of state; American poet Archibald

MacLeish; British book publisher and book seller Richard Blackwell, and Mr. Scott, former chairman and currently a member of York University's Board of Governors.

Prof. Rothstein also participated in a symposium held in conjunction with the opening of the W.P. Scott Library. He gave a paper entitled Reaction and Interaction: The Development of the North American University Library. Mr. MacLeish and Mr. Blackwell also spoke at the symposium.

Prof. Rothstein is a UBC graduate who joined the staff of UBC's library in 1947 as a junior librarian. He rose to be associate University librarian and was acting librarian in 1961 when he was named the first head of the UBC School of Librarianship.