

# Report adds new dimension to research

A new dimension was added to the discussion of research in Canada when the report of the Commission to Study the Rationalisation of University Research was released this week.

*A full report on the Corry-Bonneau Report appears on Page 5.*

Entitled *Quest for the Optimum: Research Policy in the Universities of Canada*, the study was conducted by Louis-Philippe Bonneau, former vice-rector of Laval University and J. A. Corry, former principal of Queen's University. Financial support was provided by the Canada Council, the National Research Council and the Medical Research Council.

The board of directors of the Association of

Universities and Colleges of Canada (AUCC) timed the release of the report to coincide with the association's annual meeting and a national conference to discuss research and its place in Canadian universities. The conference opened in Toronto on Wednesday.

Several studies on research in Canada have been undertaken in recent years. This commission, established by the AUCC in 1971, was asked to look at research policy in universities. The association was concerned that while governments and government agencies were developing conscious policies about research, the universities had not attempted to give themselves a well-defined set of policies. It felt universities were not giving the problem of research policy the attention it required and that they needed to be encouraged to do so.

## university news

volume 3, no. 5 dalhousie university november 3, 1972



## Grants committee receives briefs

A wide range of topics — more than 50 items grouped under eight headings — was covered by the President, the Vice-Presidents and the Deans during the annual budget discussions with the Nova Scotia University Grants Committee last week.

The grants committee — Dr. A. L. Murphy, the chairman, Dr. H. J. Somers, Senator N. A. M. MacKenzie, secretary, David Howitt and financial adviser Deric F. C. Burton — spent a day and a half in serious discussion about the university's enrolment, budget, current, new and planned programs, relations with other institutions, and community relations.

Some of the significant points made at the meetings:

**Enrolment:** As many as 400 students who had pre-registered and filled class places simply

failed to turn up in September, said the President. Projections were now being revised. Dr. Murphy expressed surprise, saying he had not expected a fall-off or no increase; only Mount Saint Vincent could report increased numbers (about 10 per cent).

**The budget:** In view of the enrolment not having increased, the current year's estimates were being revised and work on the estimates for 1973-74 had not begun.

**Programs:** The new law dean, Ronald St. John MacDonald outlined his plans for the law school, emphasizing salaries, research, a new publication, and community relations. Arts and Science dean Dr. G.R. MacLean also mentioned salaries, innovative programs (History 100), summer programs and the prestigious McCulloch professorships. The new dean of graduate studies, Dr. K.T. Leffek said that the reduced graduate enrolment might have been partly as a result of publicity about the difficulty Masters' and PhDs were having in finding jobs; the graduate school, in fact, was creating a number of jobs in some areas in Nova Scotia. Dr. L.B. Macpherson, the dean of medicine, described the four-year MD program, and emphasized that education, patient care and research were inseparable. Dr. J. D. McLean, dean of dentistry, stressed the urgent need of a new school to almost triple the number of dentists graduating; he also emphasized the success of the community dental program. Health professions dean Dr. R. M. MacDonald discussed his Faculty's mixture of programs (nursing, physical education, pharmacy, physiotherapy), reviews, and the need for graduate programs.

The grants committee will report to the government in due course.

## Job evaluation program soon

The most comprehensive job evaluation program ever undertaken at Dalhousie will begin soon.

The program, to last several months, will cover all full-time positions involving clerical and technical staff and non-professional library staff who are on the university's payroll.

A job evaluation committee has been laying the plans for the program for several weeks and was expected to give final approval to it yesterday.

Dalhousie employs about 700 as secretaries, stenographers, clerks, technicians and non-professional library staff.

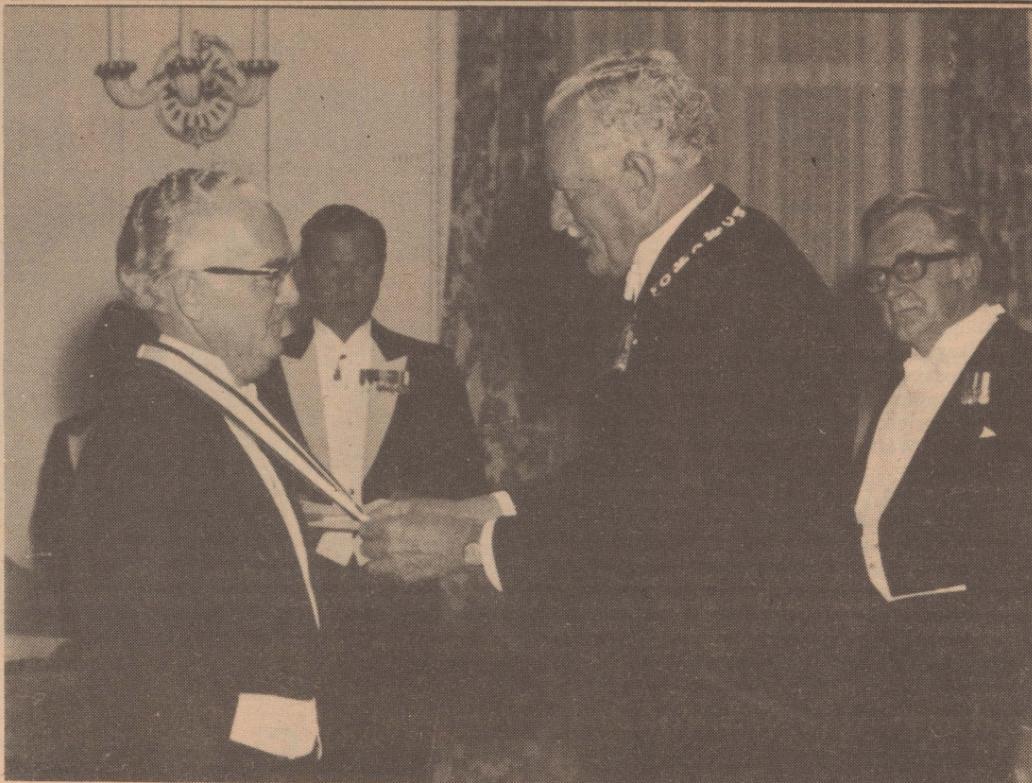
Prime purpose of the program is to evaluate jobs, and not the people in them.

The program will result in the development of a more equitable salary scale after jobs have been defined and classified, standardization of salary administration procedures, and the provision of opportunities for promotion through greater knowledge of classification and salary ranges in the university.

Job review committee chairman T. F. Meagher, the university's Personnel Officer, emphasized that the program would not result in anyone being laid off or in any salary reductions. "We're evaluating the jobs, not the people who do the jobs."

The program has two main steps: First is detailed descriptions of all jobs covered by the program, the second, evaluation of those jobs.

Needed most during the time the program is carried out? "Co-operation at all levels," says Mr. Meagher.



Dr. C. B. Stewart invested as Officer of the Order of Canada by Governor-General Michener.

## Dr. C. B. Stewart, Sister Catherine honored

Dr. C.B. Stewart, Vice-President (Health Services) at Dalhousie, and Sister Catherine Wallace, President of Mount Saint Vincent, were invested as officers of the Order of Canada by Governor General Roland Michener in Ottawa last week.

The Order of Canada is the highest award granted by Canada for outstanding merit or distinguished public service in all walks of life. The Order takes precedence over all other awards except the Victoria Cross and the George Cross.

Dr. Stewart received the Office for his contributions to medical education and research and the planning of national and provincial health and hospital services.

He was Dean of Medicine of Dalhousie from 1954 to 1971, during which the Medical School experienced dramatic growth and the Sir Charles Tupper Medical Building was constructed.

He was president of the Association of Canadian Medical Colleges and the

Continued on Page 2

## President to visit Cuba

Dr. Henry D. Hicks, the president, and Mrs. Hicks will visit Cuba later this month at the invitation of the Rector of the University of Havana.

Before going to Cuba, Dr. and Mrs. Hicks will visit the University of Guyana in Georgetown; Dr. Hicks is a member of the board of governors there.

The visit to Guyana will be from Nov. 8 to 12, and to Cuba from Nov. 13 to 20.

### INSIDE

REWARDS. . . . .	.4
EXPANSION. . . . .	.5
BIAS. . . . .	.6
ECONOMY. . . . .	.7
MIKADO. . . . .	.9
LOOKS NORTH. . . . .	.10

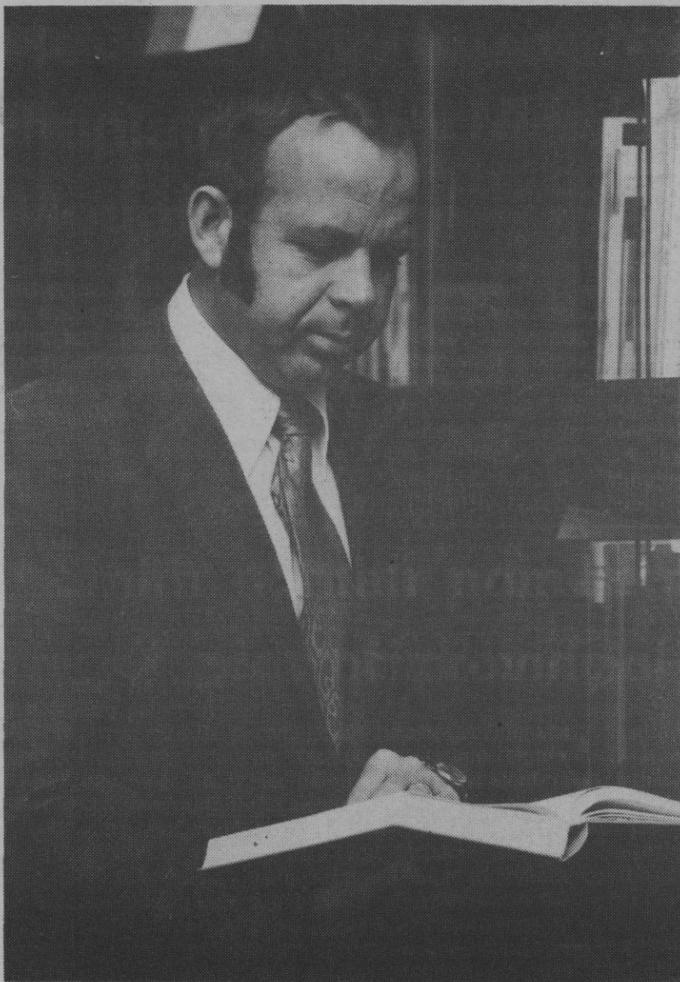
## African Studies seminar

The Dalhousie Committee on African Studies will hold a public seminar at 4 p.m., Thursday, Nov. 16, in the Board and Senate Room, Arts and Administration Building.

Conducting the seminar will be Prof. Immanuel Wallerstein, Sociology Department, McGill University.

Prof. Wallerstein teaches courses on Pan-Africanism and on African Liberation Movements at McGill, and is currently undertaking research on liberation in Southern Africa.

He is the author of numerous articles and monographs on African politics and sociology, including *The Road to Independence: Ghana and the Ivory Coast* (1964), *Africa: the politics of independence* (1961) and *Africa: the politics of unity* (1967).



Dr. M. R. Clark

## Dr. M. R. Clark named to major medical post

The appointment of Dr. Marvin R. Clark as assistant dean and director of continuing medical education in the Faculty of Medicine, has been announced by Dr. Henry Hicks, the president.

A native of Kensington, P.E.I. Dr. Clark completed his premedical studies at Mount Allison University, and graduated from the Dalhousie Medical School in 1961.

He carried on a medical practice in Kensington until 1969 when he was named assistant director of Dalhousie's division of continuing medical education.

During the period when he was in general practice, he took an active part in the executive branch of the medical society in his native province. He has just returned from a year at Michigan State University, East Lansing, where he received a master's degree in educational psychology.

Presently he is involved nationally on the research committee of the Canadian Association for Continuing Medical Education; as chairman of committee on certification examinations, for the College of Family Physicians of Canada; and as a member of the board of directors for the College.

Commenting on his appointment, Dr. Lloyd Macpherson, dean of medicine said that the Medical School was indeed fortunate in having one of its former graduates named to this important post. Since returning to Dalhousie three years ago he said, Dr. Clark has shown a keen and innovative interest in this field at the graduate and undergraduate level.

Dr. Clark's major objective will be to continue Dalhousie's leadership position in the field of ongoing professional education for practising Maritime physicians, keeping in mind present directions and trends in health care.

Under his direction, continuing medical education will move out of the classroom and into the community hospital which is the most familiar and ideal teaching - learning setting.

Closely associated with the concept of the community-based teaching facility will be the inauguration by the division of a medical audit in some of the community hospitals in order to identify educational needs before evolving an educational program.

The division will offer supportive services such as teachers, instructional aids, clinics and library materials in its future development program in order to promote the concept of self-guided, life-long learning. In addition, an effective evaluation system will be set up to monitor the impact of the new teaching techniques.

## Arts and Science has a book club

The Faculty of Arts and Science could well have its own Book-of-the-Month Club. Books by staff members in the past two years approximate a publication a month and does not include those that have been edited by faculty professors.

The more recent ones which appeared recently in the display case of the Killam Library are: Devendra P. Varma, Department of English, advisory editor of nine Gothic novels published by ARNO Press, 1972.

Malcolm Ross, Department of English, general editor of New Canadian Library: a series of paperbacks, Toronto/Montreal: McClelland and Stewart, 1972

James Gray, Department of English, *Johnson's Sermons*, Oxford: At the Clarendon Press, 1972

Rowland Smith, Department of English, *Lyric and Polemic: The Literary Personality of Roy Campbell*, McGill-Queens Press, 1972.

Devendra P. Varma, Department of English, *The Evergreen Tree of*

*Diabolical Knowledge*, Washington, Consortium Press, 1972.

Judith Fingard, Department of History, *The Anglican Design in Loyalist Nova Scotia, 1783-1816*, London: S.P.C.K., 1972.

C. Bruce Fergusson, Department of History, *Mr. Minister of Finance* (Rt. Hon. W.S. Fielding, v.2) Windsor: Lancelot Press, 1971.

Peter Burroughs, Department of History, *The Canadian Crisis and British Colonial Policy, 1828-1841*; London: Edward Arnold, 1972.

Lawrence D. Stokes, Department of History, *Medieval and Reformation Germany (to 1648)*, London: Historical Association, 1972.

Peter B. Waite, Department of History, *Confederation, 1854-1867*, Toronto: Holt, Rinehart and Winston of Canada, Limited, 1972.

Friedrich Gaede, Department of German, *Realismus von Brant bis Brecht*, Munchen: Franke Verlag, 1972.

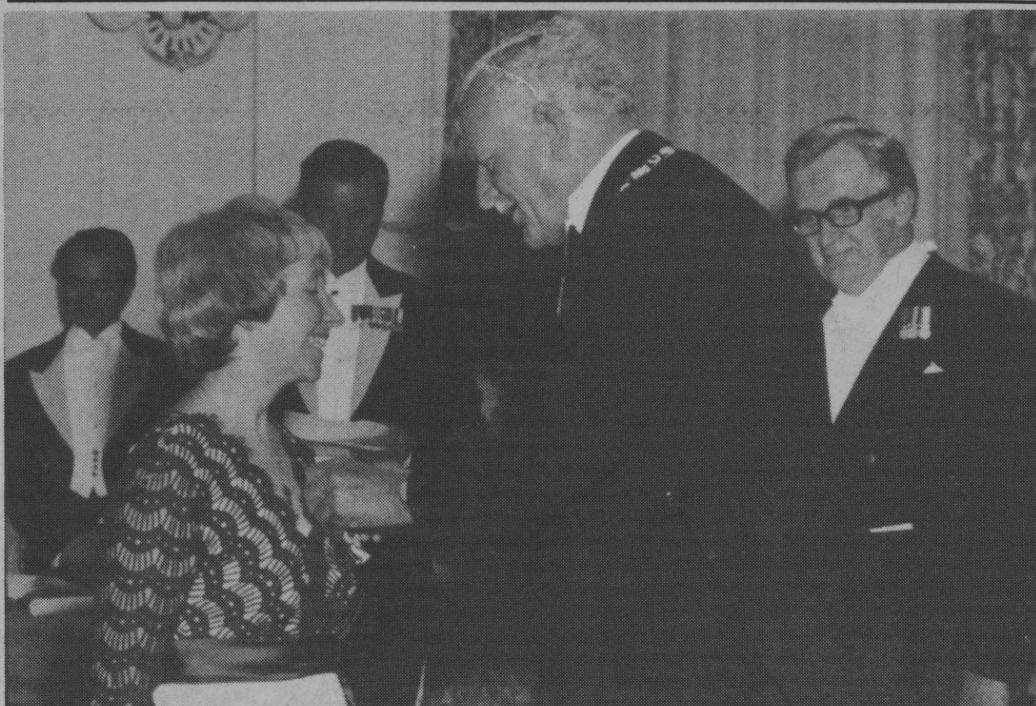
David Braybrooke, Department of Philosophy, with Charles E. Lindblom, *Uma Estrategia de Decisao Social*, Rio de Janeiro: Zahar Editores, 1972.

Betty Bednarski, Department of Romance Languages *Tales from the Uncertain Country*, by Jacques Ferron, and translated by Betty Bednarski, Toronto: Anansi, 1972.

Roland Puccetti, Department of Philosophy, *The Death of the Fuhrer*, London: Hutchinson and Co., 1972.

Edgar Z. Friedenberg, Department of Education,

*Die Manipulierte, Adoleszenz*, Stuttgart: Ernst Klett, Verlag, 1971.



Sister Catherine Wallace receives the Order of Canada from Governor-General Michener.

## Dr. Stewart, Sister Catherine Wallace

Continued from Page 1

Canadian Public Health Association and its Nova Scotia division.

He was a pioneer in research in aviation medicine during World War II and introduced BCG vaccination against tuberculosis in Nova Scotia and Prince Edward Island in the late 1940's.

He was director of research and planning of the Canadian Sickness Survey in the Maritime Provinces in 1951 and conducted other studies on which medical and hospital insurance plans were based.

His citation for the award was not only for his contribution to aviation medicine, but to medical education at Dalhousie University, in this region and in Canada as a whole, to the delivery of health care in the Maritimes, and to the medical

organizations and through them to the people of Canada.

Sister Catherine Wallace was honored for her work in education.

She has had a teaching career which took her to various levels on both the east and west coasts of Canada and to New York and Massachusetts.

She became the first principal of the Diocesan High School in Vancouver in 1953, was appointed professor of English at Mount Saint Vincent in 1959, and in 1960 established the first program for Canada's first Sister Formation Plan.

Two years later she became supervisor of education for the Congregation of Sisters of Charity.

On July 1, 1965, she was appointed president of Mount Saint Vincent.

## Theatre lecture

Dr. Michael Booth, director of drama at the University of Guelph in Ontario, will visit Dalhousie to give a public lecture entitled "Virtue Triumphant, Virtue Travestied: Melodrama and Parody in the Nineteenth Century" on Sunday, Nov. 5.

### university news

University News is published fortnightly by Dalhousie University, Halifax, Nova Scotia: it is produced by the University's Information Office and printed by The Dartmouth Free Press Ltd.

Inquiries and contributions should be addressed to: The Editor, University News, Information Office, Dalhousie University. Deadline for material is the Friday preceding publication.

University News staff: Editor, Maurice MacDonald; General News, Roselle Green

# Year of expansion at Mount

The year 1971-72 at Mount Saint Vincent University was one of research, projection studies and important academic course changes "to open new and more advanced career opportunities for graduates," according to the annual report of Sister Catherine Wallace, President of the Mount.

Reviewing the year which ended in June, 1972, Sister Catherine said that considerable expansion of both buildings and course offerings were brought about.

Most notable among the expansion of physical facilities was the opening of Seton Academic Centre, Sister Catherine said, along with the completion of the new art gallery, expansion of the University library and construction of "The Birches", five new student residences on campus to house 100 students. (See also page 5.)

"In September 1971, 1,016 full-time students were registered at the Mount and 281 part-time," the report said. "Geographically, 94 per cent of the students came from the Atlantic Provinces, with 82 per cent coming from Nova Scotia."

The annual report noted that "the trend

toward professional preparation was evident in the increased enrolment in business and home economics."

"Following, or somewhat ahead of, the national trend, there was a substantial increase in the number of full-time and part-time adult students at the university, especially in the professional areas of business, education, home economics and nursing."

"In spite of inadequate facilities for athletics, the Mount teams were successful in both intercollegiate volleyball and in basketball," the report said. Among other popular sport activities were curling, golf and swimming.

The questions of what happens to graduates in their search for employment was of direct concern to the university. "In addition to the information provided by the Canada Manpower Centre," the President's report said, "studies by the professional departments indicate an almost total placement of graduating students."

In order to improve the quality of professional education as well as to open new and more advanced career opportunities for graduates, the

Senate approved a number of course changes. These included:

\* A business program leading to a Bachelor of Business Administration.

\* In Education, implementation of an integrated program leading to a B.A. (B.Sc.) — B.Ed. for prospective teachers.

\* In Home Economics, revised requirements for the B.Sc. degree in Home Economics with a foods and nutrition major. Also offered was a Bachelor of Home Economics with a general major.

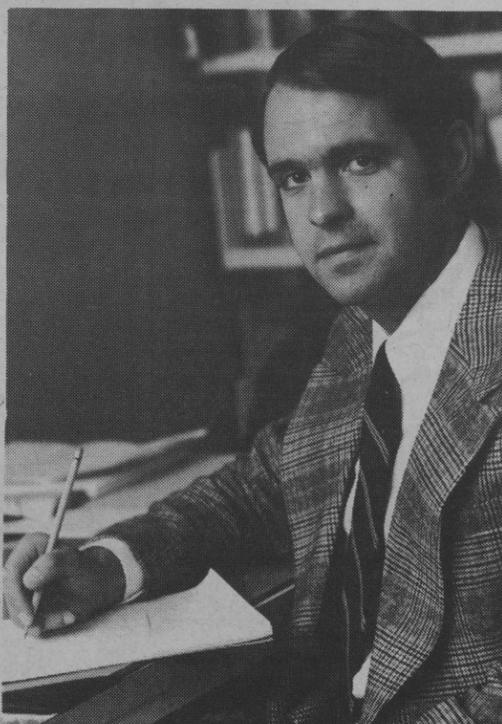
\* In Nursing, removal of the requirement to pass the R. N. examinations before receiving a nursing degree.

\* In Continuing Education, a fifteen-unit degree for mature students.

During the year, the Mount pursued studies to greater implementation of its co-operative agreement with Dalhousie University and the Nova Scotia College of Art and Design. Inter-university co-operation was encouraged and expanded.



Dr. Michael J. Keen



Dr. Rowland J. Smith

## Assistant deans appointed in Faculty of Arts and Science

The appointments of Dr. Michael J. Keen and Dr. Rowland J. Smith as Assistant Deans of the Faculty of Arts and Science have been announced by Dr. Henry Hicks, university president.

Dr. Keen, a native of England, received his Bachelor of Arts degree, in natural sciences, from Oxford in 1957 and his Ph.D. in geophysics from Cambridge in 1961.

He joined the university as an assistant professor in 1961; was named associate professor in 1964; and professor and chairman of the Department of Geology in January, 1969.

Dr. Keen's research has been directed principally to an understanding of the continental margin of eastern Canada, and some of the deep structure of the Appalachian system in Canada. Some research has also focussed on the mid-Atlantic ridge with early work concerned with the magnetization of sediments.

His general experience in geology and geophysics led to the book "Introduction to Marine Geology" in 1968. He has also had many papers and articles published, in-

cluding studies made of the Atlantic seaboard.

Dr. Rowland J. Smith, a native of Johannesburg, South Africa, has a BA from the University of Natal, an M. A. from Oxford and a Ph.D. from the University of Natal.

A Transvaal Rhodes Scholar in 1960, he was Visiting Fellow at Dalhousie in 1965-66, was appointment assistant professor of English in 1967 and associate professor in 1970. His special fields are 20th century British literature and African English literature.

He is the author of numerous articles and reviews and his first book, *Lyric and Polemic: The Literary Personality of Roy Campbell*, was published by McGill-Queen's Press in September.

He has also done extensive television work. He has given a 30-minute lecture on "Africa in Fiction" on CTV and organized a six program series entitled "Modernism: The Change of Sensibility, 1900-1920" for the CTV series "University of the Air."

## Students using opinion polls

Sociology professor Gary Bouma and political science professor Dale Poel are giving their students an early introduction to the use of opinion surveys as one method of developing skills in quantitative measurement and scientific inquiry.

Although the topics selected by students for investigation — the question of legalization of denturists, student voting patterns in provincial election and the Nova Scotia government's takeover of a private utility — were topical and related to the community around them, the techniques take precedence over the findings, even though the findings are interesting.

A study of community perception of the legalization of the denturists society was generated within an introductory Sociology tutorial group (Sociology 100) as a topic of community concern and relevance. It was presented to the Legislative Assembly simply as a piece of research, but with policy implications.

### EXPERIENTIAL

The study's primary goal was experiential rather than a decision-making aid. It describes the background, procedures (such as data collection, sampling, analysis procedure and procedural limitations), the results and implications of the issue with two main objectives in mind: one, as a teaching aid to introduce first-year sociology students to this method of inquiry; and two, to attempt a community service by obtaining data from the public on an issue that has been controversial and of concern.

The findings revealed that cost and skill levels were the two most important considerations in choosing between the services of denturists and dentists. Ninety-eight per cent of those who had dealings with denturists or had close acquaintances who had dealt with denturists were satisfied with their services.

Political Science 235: Public Opinion and voting Behaviour, is a class led by assistant professor D. H. Poel, and deals with the development and interplay of public opinions within the political system.

Part of the class content took the form of public opinion research projects, which examined the take over of the privately-owned Nova Scotia Light and Power Company by the provincially-owned Nova Scotia Poere Commission and second, student political opinion and participation in the 1970 Nova Scotia provincial election.

### THREE STAGES

The projects tests the students quantitative skills in measuring attitudes, making comparisons and drawing conclusions. There were three stages in their opinion research: research design; data collection and preparation which included the sample, the interview construction, interviewing, coding and punching; and the analysis.

The findings revealed that in the N. S. L. P. issue there seemed to be nothing interesting in terms of impact — most people did not change their opinion of the government and the take over did not cost the Liberal government much in terms of public support (those that were more favorably disposed towards government were Liberal to begin with and those who were less favorably disposed towards government were P. C.'s).

In the voting patterns of the 1970 provincial election, the survey showed that there was a similarity between student and parent voting patterns.

# Forgotten files hold rewards

A Lonely Orange Filing Case sits near the entrance of the Awards Office awaiting the attention of faculty and students seeking financial assistance in the form of scholarships and bursaries for graduate and post-graduate study.

It's a forgotten file — yet holds promise for students who wish to take advantage of what the orange box contains.

The list that follows indicates only a few of the many scholarships available. Further information on these and other awards can be had by browsing through the box in the Awards Office.

In addition, the Awards Office has received a registry of awards for advanced research in the humanities as well as the Grants Register listing post-graduate awards for the English-speaking world.

Faculty members are encouraged to go through the files and, in turn, assist students to apply for the scholarships and bursaries.

Go in and take a look, here are some of the things you will find:

## FRANK KNOX MEMORIAL FELLOWSHIPS —

Fellowships for one academic year and valued at \$2,400 plus tuition are offered to Canadians who have graduated or about to graduate in the following fields of study: arts and science (including engineering), business administration, design, divinity, education, law, public administration and public health.

## CHEVRON STANDARD LIMITED FELLOWSHIP AWARD —

These awards are for graduate studies in the fields of geology, geophysics and petroleum engineering. The program of study is available at a number of Canadian universities. The award will be based on scholastic ability, field of interest, the recommendation of the department in which the candidate is applying for admission and the supporting recommendation from the department in which he conducted his undergraduate studies.

## THE EDGAR PAM FELLOWSHIP —

This fellowship is offered to young graduates who wish to undertake advanced study or research in the U. K. into any aspect of the science or practice of mining or related subjects such as economic geology, mineralogy, mineral processing, extractive metallurgy. The fellowship is valued at 600 pounds and is tenable for one year.

## MEDICAL RESEARCH COUNCIL —

The Council provides studentships valued at \$3,600 and bursaries valued at \$3,000 each for 12 months, to be awarded to Canadian citizens and landed immigrants, for the support of pre-doctoral studies. The awards are made on the basis of scholastic achievement and potential ability in research. Recipients must be conducting research under the supervision of members of departments or medical schools.

## BELL CANADA CENTENNIAL FELLOWSHIPS —

Offered to students who are proceeding to a Master's degree, these fellowships are not restricted to any field of study but preference will be given to subject areas relevant to the scientific, political, social or economic needs of Canada. The annual stipend is \$3,500 and an additional \$1,500 will be given to the university attended by each fellow to cover tuition and help defray other expenses associated with the candidates studies.

## NATIONAL PARKS SERVICE OF CANADA SCHOLARSHIPS —

These scholarships are offered to Canadian citizens and are valued at \$2,000. Tenable at Canadian universities, they are in support of postgraduate training related to the planning and management of natural parks and outdoor recreation areas.

## BURSARIES IN MENTAL RETARDATION —

Candidates who are pursuing graduate studies in Canada leading to a research related career in the field of mental retardation are eligible for these bursaries. The awards are valued at between \$1,500-\$3,000 for the academic year.

## SHELL CANADA LIMITED POSTGRADUATE AWARDS —

These scholarships are valued at 1,600 per year with provision for travel expenses and are tenable for two years at Cambridge, Oxford, London or other universities in the U.K. The fields of study include chemistry, physics, chemical and other fields of engineering, geophysics and geology. Candidates must have an honours degree or at least have completed or are completing one year of postgraduate research in one of the specified fields of study.

## SHELL CANADA FELLOWSHIPS IN ENGINEERING FOR POSTGRADUATE STUDY AND RESEARCH —

These fellowships are tenable for up to three years at any Canadian university with recognized engineering and research facilities. They are valued at \$4,000 each with the fields of study in the areas of chemical, civil, electrical, geological, mechanical, metallurgical, mining and petroleum engineering and engineering physics. Candidates must have graduated with high honours in their first degree and must indicate their intention to complete a doctorate in Canada.

## SAMUAL BRONFMAN FOUNDATION GRADUATE STUDY FELLOWSHIPS IN BUSINESS ADMINISTRATION —

Twelve graduate study fellowships of \$1,000 each for students in their first year of a master's program and six graduate study fellowships of \$1,600 each for students in their final year of study are available.

The Foundation has made available a series of business fellowships designed to encourage the most highly qualified individuals to further their graduate studies in business and to support the development of graduate business programs in Canada.

## AMERICAN ASSOCIATION OF UNIVERSITY WOMEN INTERNATIONAL FELLOWSHIPS —

These fellowships are open to women in countries other than the U.S.A. and are offered to candidates wishing to do graduate study and research in the United States. The purpose of the fellowships is to provide opportunities for advanced study and training for women of outstanding ability who may be expected to give effective service and constructive leadership upon their return

## COMMONWEALTH SCHOLARSHIPS IN CEYLON —

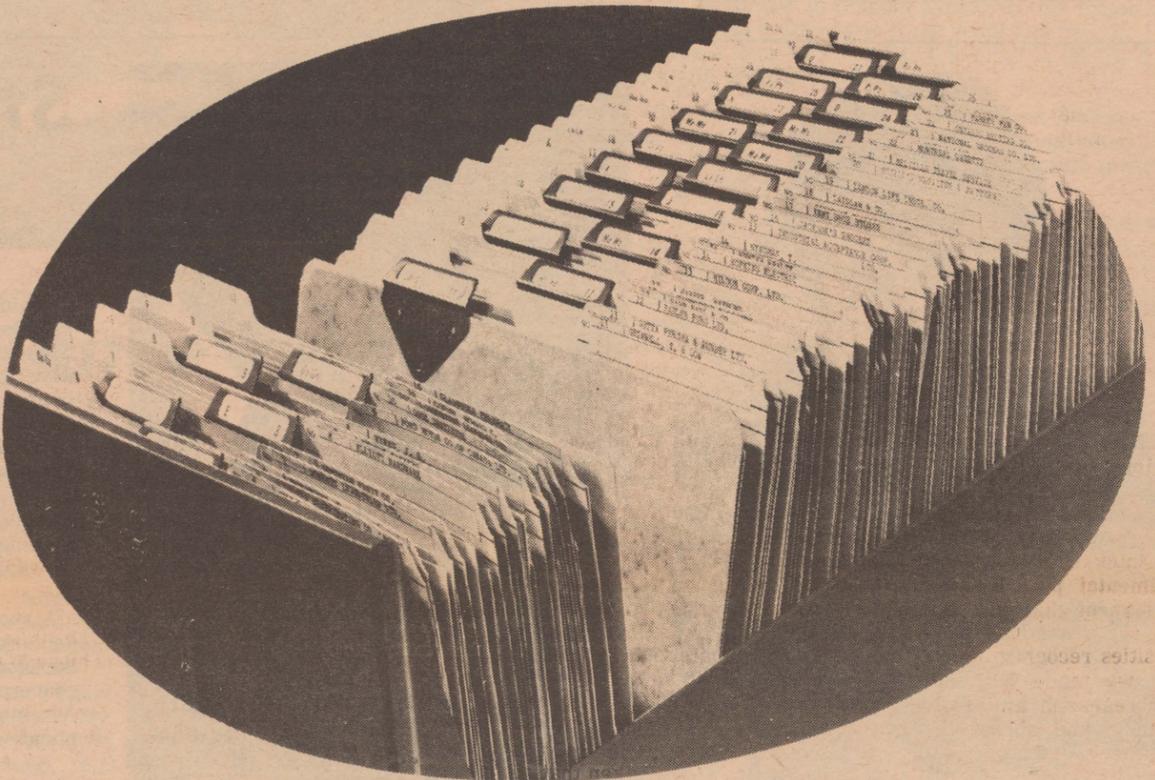
The government of Ceylon offers three postgraduate scholarships and three undergraduate scholarships to students from other parts of the Commonwealth. The scholarships will be awarded to persons of high intellectual promise who may be expected to make a significant contribution to their own countries on their return.

The scholarships are tenable for a program of study extending over one or two academic years. Value of the awards include travel, living, tuition fees, personal maintenance allowance during their tenure.

## THE J. H. STEWART REID MEMORIAL FELLOWSHIP —

Established through voluntary contributions in honour of the first executive secretary of the Canadian Association of University Teachers, it has a value of \$2,500. The award to a candidate is for one year in an unrestricted graduate program at any Canadian university.

## INTERNATIONAL NICKEL GRADUATE RESEARCH FELLOWSHIPS IN ENGINEERING



to their home countries. Fellowships are awarded for one year and stipends average \$3,000 to cover costs for one year. In addition tuition fees are paid directly to the university where the candidates are studying.

**RUTHERFORD SCHOLARSHIPS —** Applications are invited from graduates within the British Commonwealth who are under 26 years or if holding a PhD, under 28 years, for the Rutherford Scholarship. The award is for experimental research in any branch of the natural sciences and is tenable for three years somewhere in the Commonwealth other than that in which the applicant graduated. If held in the U.K. the value of the scholarship will be between 950 and 1,200 per year. Additional allowances will be made for travel, fees, etc.

## ROYAL COMMISSION FOR THE EXHIBITION OF 1851 —

These are postgraduate scholarships valued at 1,000 a year with other allowances provided for. The awards are intended to enable selected students of overseas universities who have given evidence of capacity for research to devote themselves to two or three years of full-time research in pure or applied science.

**MCILRATH RESEARCH FELLOWSHIP —** This fellowship is open to women who are residents of the Commonwealth and is tenable at St. Hilda's College, Oxford. Valued at 700 per annum for three years, the candidate will be able to pursue research in any subject which can profitably be studied at Oxford.

**CLAUDE LEIGH REAL ESTATE AWARD —** The Real Estate Institute of Canada is pleased to announce the availability of this award for the best article pertaining to any phase of Canadian Real estate. The scope within which the candidate may submit an article could cover such topics as law, architecture, town planning, layouts for local and main roadways, subdivisions, shopping centre, transportation and ecology, to mention but a few. The award is valued at \$500 and the winning article will be published in the institute's technical publication.

**QUEEN'S UNIVERSITY FACULTY OF LAW ENTRANCE SCHOLARSHIPS —** Several entrance scholarships of at least \$1,500 each, tenable in the first year of the Faculty of Law at Queen's, are available to students with outstanding records in any field of undergraduate studies.

**AND SCIENCE —** The company annually provides a number of postgraduate fellowships tenable at Canadian universities. Their duration is up to three years and are valued at \$4,500 per annum of which \$700 is to defray research expenses. The INCO fellowships are open to qualified students actively engaged at the master's or doctoral level in fields of research related to chemistry or physics of metals or minerals, geology (including physical and extractive), mineral processing and mining.

**QUEEN ELIZABETH SCHOLARSHIP —** This scholarship is for study in the Eliot-Pearson Department of Child study at Tufts University, Medford, Mass. It is open to anyone holding a Bachelor's degree and provides for a one-year graduate course. Applicants are expected to return to work in the field of early childhood education in Canada. The scholarship is for tuition only.

**PARLIAMENTARY INTERNSHIPS —** The Canadian Political Science Association in collaboration with the Speaker of the House of Commons and the House Leaders will assist under this program of internship. Under the program graduates of Canadian universities will be able to supplement their academic training with practical knowledge of Parliament's functions and the day-to-day work of house members. Ten internships are available to graduates from Canadian institutions, who hold degrees in political science, law, journalism or history.

## SMITHSONIAN OPPORTUNITIES FOR RESEARCH IN HISTORY, ART AND SCIENCE —

Fields of research and study at the Smithsonian include research in American history, American material and folk culture, history of music and musical instruments; for research in the history of science and technology; for research in the history of art and design; for research in anthropology; for research in evolutionary, systematic, behavioral and radiation biology, and for research in geological sciences and astrophysics. Application for deadline for fellowships is January 15, each year. Date of notification of stipend awards is March 15, each year.

**TERRESTRIAL WILDLIFE BIOLOGY —** The Canadian Wildlife Service offers Canadian citizens scholarships tenable at Canadian universities to promote postgraduate training in terrestrial wildlife biology.

# Firm research policy urged

The report urges the universities to develop firm, coherent research policies, singling out objectives, in the sense of broad areas of research where they would like to concentrate their main efforts, and elaborating programs within these broad areas. The universities should not set particular research projects within these areas and programs; the individual researchers should be free to make his own choice.

The report emphasizes that the universities must set their research houses in order as a means of preserving their autonomy in the field of research and as a means of ensuring that the research activity they undertake fits reasonably well with their obligations to carry on effective undergraduate teaching and within the whole range of university purposes aside from research.

The commissioners caution that no university can settle the matter of its objectives entirely on its own. There must be ongoing, inter-university consultation to co-ordinate the university research effort.

The report emphasizes the distinction between frontier research and reflective inquiry. Frontier research is defined as exploration on the frontier of knowledge, looking for new facts, new phenomena. Reflective inquiry is essentially an intellectual activity which seeks the significance of facts and phenomena already discovered, and the relation of these to human interests or to a larger understanding of the world.

The commissioners urge a division of labour along these lines in recognition of the fact that some people are good at one or the other, while only the very best are good at both. They believe frontier research is not always essential to undergraduate teaching, that in fact it is sometimes in conflict with this activity. However, reflective inquiry is vital for teaching at all

## Correy-Bonneau Report

levels. The commissioners believe a distinction between the two would result in an improvement in the quality of teaching, particularly at the undergraduate level.

The commissioners say that teaching, and in particular undergraduate teaching, is the primary function of the university. Research could be done elsewhere but only the universities can transmit the knowledge and traditions inherited from the past.

The report states that basic research can be done most effectively in the universities and that these institutions should devote their principal research attention to this activity. However, they do not agree that applied research should be taken out of the universities; in fact there should probably be more of it.

The commissioners outline a strategy for the rationalisation of university research (see recommendation 15 attached) and set out three models for trying to make this strategy work. The first model suggests a form of organization for each institution. The second relates to consultation between the universities, provincial governments and representatives of industry. The third model involves universities and provincial and federal governments in an effort to define national priorities in research.

The report urges each government to make specific its research priorities so that individual researchers will know where they might direct their efforts and to encourage university persons to become involved in these priorities. It believes the federal funding agencies should continue with their present activities, taking into account the stated priorities of the provincial and federal governments.

A copy of the report is available on request from Mrs. Rosemary Cavan, Information Officer, AUCC (613-237-3330).

## 16 major recommendations

The following are the recommendations of the Correy-Bonneau report:

1. Accordingly, we recommend, for at least an experimental period, rather stiffer assessment of applications for research grants by the federal funding agencies. We think it should be an experimental period and not a permanent change in policy.

2. We recommend that universities recognize the distinction we made between frontier research and reflective inquiry, and accept the consequences which will be described later.

3. We believe that each university should set its own objectives in research (subject to the limits on the use of funds impressed with a mission) bearing in mind and exploring with governments and other universities its obligations to the world of learning, to the diverse interests and needs of students, and of the local community, and of the nation.

4. We approve the view widely expressed within universities that the main focus of the universities in research should be on basic research. Despite recent suggestions to the contrary, we believe that a very substantial commitment to basic research is vital to the progress and welfare of the country and to the quality of the work universities do.

5. In the light of all these considerations relating to effective teaching, to the problems of small universities, and to centres of excellence, we recommend that the universities revise their policies on promotion and salary increases to ensure that the same weight is given to undergraduate teaching and reflective inquiry as is given to frontier research and teaching and supervision of graduate students.

6. Every university should have a fund for supporting out-of-pocket costs of reflective inquiry from which grants would be made on applications for special purchases such as books or journals urgently needed for a project, for short visits to other better equipped libraries, or for short-term

research assistance.

7. We recommend that the Canada Council continue its support of research in the humanities and social sciences on a program which would give greater emphasis to projects in reflective inquiry.

8. Instead, we suggest an effort by the Government of Canada, in consultation with Canada Council and SSRC to select experimentally seven to nine graduate schools across the country that have shown really good quality in graduate work in at least two of the main social science disciplines. Care would have to be taken that all the main disciplines in the social sciences were represented by strength somewhere in these graduate schools. This would make possible a quicker start, would do something like justice to regional aspirations, and would prevent putting too many eggs in too few baskets.

9. So, we recommend that the federal granting agencies make payments to the universities designed to cover the indirect costs of the research they sponsor, including salaries, that, failing a federal-provincial agreement on an alternative figure, these be set at 45% of the amount of each grant, and paid as contributions to the general revenues of the universities. Additional sums to cover those amounts should be added by the

federal government to the annual votes of funds for the three funding agencies.

10. We recommend that universities of the middle and larger size should provide themselves with a research office; it would fix on someone the continuing responsibility of studying the conditions necessary for research work of good quality.

11. To sum up, we recommend that university institutions foster all these major moves towards coordination, which we have just described and which are already under way, with a view of rationalising research collections in the university libraries, and that they work together actively for coordination at the national level.

12. We do recommend, however, that the federal councils consider setting aside a small percentage of their funds to be used as risk capital in the field of research rather than committing it all to prudent investment in stocks that give high promise of dividends.

13. There will have to be

special attention given on a national basis by the federal government to selecting across the country centres of specialisation, recognising, and helping to build up in them, first class research competence in a limited number of departments and/or faculties. They cannot be centres of excellence in the full sense (as defined above) because of the limited range of high competence they can achieve in the near future. This is what all middle-sized universities, and some larger ones, will have to be content with, in the category of frontier research. It is the way in which both good quality in research and regional aspirations can be encouraged and nourished at the same time. It is possible for such centres of specialisation, through careful development, to reach international stature in limited areas.

14. While recognizing that effective work and collaboration are often easier when everyone involved is at home in one and the same language, we do nevertheless recommend that quite deliberately, in pursuit of high national purpose, we should attempt to establish in Canada some centres of research based on substantial contribution from the two main cultural groups.

15. In summary, the strategy we recommend for rationalisation of university research has the following

elements (1) particular universities seeking to articulate policies and objectives for themselves which keep in mind local, provincial and national problems that research can help to solve, (2) time limits set on the discussions for this purpose at and between the several universities, (3) enough limits on the flow of research funds to make it imperative to plan the best use of scarce resources, and keep the universities in a locality or region straining to co-operate and co-ordinate on this basis, (4) provincial governments identifying areas of research of special interest to them, offering some inducements to take them up, (5) efforts at the national level by the federal government, federal funding agencies, and discipline associations in the several disciplines to identify areas needing research, to define and list projects, to stimulate the competent to undertake them on terms and inducements that favour development of centres of excellence and centres of specialisation.

16. We recommend that, in cooperation with the National Library, and the National Science Library, AUCC make a sustained effort to see to the establishment of a national index of on-going research. It would be a very important part of the network of sources of information which the universities need to rationalize their research effort effectively.

## Terms of reference

Terms of reference of the Commission to Study the Rationalisation of University Research in Canada:

To study, report, and make recommendations on the mechanisms, structures and processes required to ensure that research undertakings in the universities of Canada can be planned to serve, without undue duplication, both the advancement of knowledge, and provincial, regional, and national development.

Without restricting the generality of the foregoing and while taking into account existing documentation, attention should be paid to:

- (1) the diversity of existing processes within the universities, within provincial systems and within regional groupings by which decisions affecting university research are initiated, implemented and evaluated;

- (2) the instruments through which individual, departmental, institutional, provincial, regional and national interests in university research efforts can best be fostered;
- (3) the instruments through which provincial, regional and national interests in university research can best be related;
- (4) the role of individuals and of groups of scholars in the development of university research programs;
- (5) the role of granting agencies, federal and provincial, private and public in university research;
- (6) the effect of research sponsored by one jurisdiction on university research supported by another jurisdiction;
- (7) any other related matters.

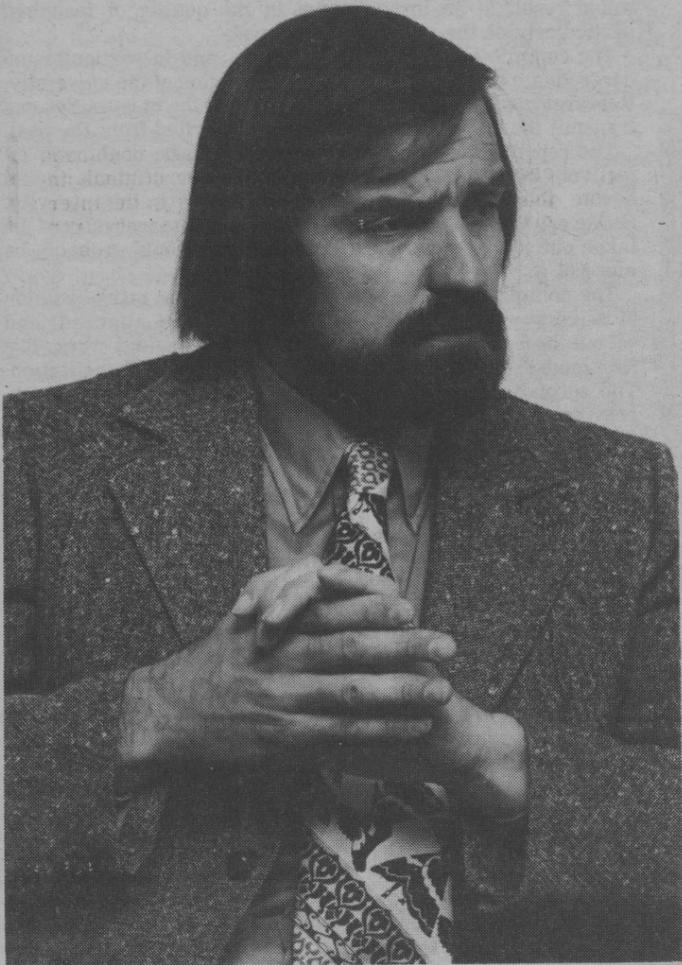
## Computer courses begin Nov. 6

The Computer Centre will offer non-credit courses in computing and Fortran beginning on Nov. 6.

The courses consist of two, one-hour lectures per week for five weeks. Interested persons should fill in the registration form at the registrar's office of the Computer Centre. There is no charge for faculty, students or staff of Dalhousie, Mount Saint Vincent, Nova Scotia Technical College or the Nova Scotia College of Art and Design.

Psychology professor probes. . .

## Discrimination and its manifestations



**EHOR BOYANOWSKY** is a social psychologist. He did undergraduate work at the University of Western Ontario and received his PhD from the University of Wisconsin. He is presently an assistant professor in the department of psychology at Dalhousie.

How do people of one ethnic origin or bias behave when an outsider comes into their midst? And to what extent will people accept or reject the outsider?

These are some of the things that are being looked at by psychology professor Ehor Boyanowsky in a three-part study now in progress under his Canada Council research grant.

The project is set up to determine experimentally, some of the social and cognitive factors which control the manifestations of discriminatory behaviour, and the basis on which people belong to groups and reject others as members.

Some studies in the past have indicated that when a person of noticeably different race or ethnic background comes into a distinct group, that the group members, through interaction and acquaintanceship, gradually become less prejudiced towards him.

Other researchers have said that this is not always the case...that an ethnocentric individual when brought into contact with an out-member, even though he had similar beliefs, still discriminated and rejected the outsider.

These findings have caught Professor Boyanowsky's attention and he says, "...probably prejudiced behaviour isn't as much a personality thing or a cognitive thing (that is, it is determined by one's beliefs) as much as it is determined by situational factors."

He cited the example of the various ethnic groups who work side by side in some of the Pennsylvania coal fields and manifest little prejudice while underground. But once they leave their work environment, the miners become segregated and fall in line with their particular group norms and patterns.

Boyanowsky's research in this area began when he was at the University of Wisconsin. He and his colleagues measured the informational influence (or views) of the ingroup upon its members.

Their tests revealed that when they removed certain information, the ingroup still avoided the outsider. They found that one of the controlling mechanisms for keeping the member from responding positively to the out-member in these circumstances was the element of surveillance by fellow members in his own group.

One phase of the study he is undertaking now is to weigh the manner in which people use this information in an ingroup situation and secondly, attempt to work towards a model where cognitive

and social factors can be examined.

"This kind of study," according to Boyanowsky, "is relevant when we study the effects of majority influence in such matters as public voting, jury duty, or general exposure to social problems that are part of one's daily lives."

Previous psychological testing has shown that most people will only be willing to oppose the group if someone first "sticks their neck out" and gives an unpopular opinion. Then some individual, influenced by the dissenter in private, may support him.

But Boyanowsky says that under these circumstances the subject has still not come around to the point where he will face the majority alone. Once he loses his support he doesn't sustain his independence and he ultimately returns to the majority view.

The professor hopes to show that by introducing certain factors, the individual of the ingroup will be able to stand independently rather than wait for someone else to make the first dissenting move.

And more important, the subject will recognize for himself that he can gain experience in standing alone rather than merely concurring with the position of the prior dissenter.

The second part of his study deals with group pressure and racial discrimination.

The proposal under study will attempt to relate four factors to the manifestation of prejudice...personal characteristics of race and beliefs; the personal characteristics of high and low prejudice; specific situational factors (such as adherence to group norms, surveillance and the threat of censure by the ingroup, and self-perceptual factors); and finally the physical and social and personal realities of a given task.

An example here would be the case of a U.S. Southerner going to a liberal Canadian school. He becomes less prejudiced while there but a Canadian going south becomes more prejudiced.

Returning home both individuals revert to their former attitudes.

The studies represent extensions of previously conducted research on group pressure and Professor Boyanowsky says that they have been unified under one grant because they require the same basic apparatus for testing.

When this program is completed, Boyanowsky hopes to apply his findings to other cultures and look at how social influence operates in a more traditional and communal culture, such as they Ojibway Indians of Northern Ontario.

## Mount students move into new residences

Students at Mount Saint Vincent have moved into five new residence buildings erected on the university campus this summer at a cost of \$613,000. The group of houses has been named "The Birches".

The residences represent an exciting concept of student housing, having been designed to provide a life style for the students not normally available at a university.

Each house is fully equipped and students are encouraged to cook their own meals and entertain in the manner they would in their own homes.

Twenty students will live in each of the three-storey split-level houses, and the complex provides residence facilities for 100 students.

The houses are located in a beautifully wooded setting, clustered around a natural pond. The university has been able to use valuable land to house the students in a way that enhances the site.

There has been minimum disturbance of the trees and natural environment and this would not have been possible with conventional student residence buildings.

Designed by the architectural firm of Fowler, Bauld and Mitchell, Ltd., of Halifax, the houses were built by Dineen Construction (Atlantic) Ltd., of frame construction with a stained shingle finish that blends with the surrounding trees and grass.

Available to the residents in each house are a living room with fire-place, a fully equipped kitchen with self-cleaning stove and refrigerator/freezer, a utility room which contains an automatic washer/dryer and professional hair-washing sink and dryer.

There are two smaller lounges where visitors may be entertained in an area separated from the individual bedrooms.

The houses have wall-to-wall carpeting throughout, except in the kitchen and utility areas and they are heated electrically with thermostats in every room.

## Pensions discussed by DSA

Pensions were the topic at the monthly meeting of the Dalhousie Staff Association. G. R. George, university controller, was on hand to explain the recently revised pension scheme and discuss questions of members regarding eligibility, options, rates of interest and disability benefits.

The association now has 278 members and represents a good proportion of technical and secretarial staff. The executive is currently discussing with the

administration several areas of vital concern to staff members. These include job classification, fringe benefits and parking.

The secretarial classification will be up-dated and the fringe benefits committee is working to get free credit courses for staff members.

The most recent addition to the executive is Elmer Young, purchasing department, who is responsible for getting discounts at local businesses for D. S. A. members.

George Evans has been appointed liaison person between D. S. A. and the newly formed Canadian Association of Life Sciences Technicians.

Plans are underway by the social committee for a Christmas get together of all D. S. A. members.

Enquiries about membership in the association should be directed to Margaret Legere, purchasing department, 424-2502.

## Young Alumni plan varied program

A varied program of events has been arranged for the Young Alumni Club between now and Christmas.

Are There Stars and Stripes Around the Maple Leaf? This is the topic for discussion on Nov. 8 at 8 p.m. in the Weldon Law

Building. Guest panelists include: Nick Fillmore, editor of the 4th Estate; Dr. Alasdair M. Sinclair, head of the Economics Department at Dalhousie; Alton A. Lomas, assistant deputy minister of development for Nova Scotia; Harry Flemming,

executive vice-president, APEC; and moderator, Bob Oxley, executive producer, CBC.

Other events include a trip to Saint Mary's University's Observatory on Nov. 22, and a Grey Cup party for the football enthusiasts on Dec. 3.

## Dougall to lead seminar

John Dougall, program director for Dalhousie University's Advance Management Centre, and a lecturer in the Master of Business Administration program, will lead a communication seminar on Nov. 7 and 8 in the Killam Library auditorium.

Mr. Dougall, who has practical

experience in the process of communications and interpersonal dynamics, has designed and carried out a number of studies and consulting assignments for industry, government and service institutions.

The sessions, offered to all levels of managers in govern-

ment, industry and institutions, will be aimed at improving relationships with others through a combination of instruction, films, role-playing exercises, practice sessions and group discussion periods. In addition, a communication laboratory is also scheduled for the first evening of the workshop.

# Masters of our own economic destiny

The only way the Atlantic Provinces can close the economic gap with the rest of Canada is by expansion of the manufacturing industry, Prof. Roy George of the Department of Commerce told an Institute of Canadian Bankers conference in Chester.

To attain this goal, "and if we are to stand on our feet, we have to produce our own entrepreneurs and managers," he said.

This gap prevails, he said, inspite of all the inducements offered by the federal and provincial governments to encourage development.

The usual reasons given for this disparity are lack of skilled workers, low productivity, high construction and transportation costs and lack of capital, but Prof. George pins a good deal of the cause the entrepreneurs and managers, or the lack thereof, in the Atlantic area.

He pointed out that while wages in Nova Scotia were 80% those in central Canada, the same percentage applied to productivity — the two proportions, therefore, cancelling each other out.

His findings were based on studies made in the 1960's, "but, I see no reason to suspect that the situation has altered since."

He drew the conclusion that management in Nova Scotia seemed to be less efficient.

Part of his study was a poll of firms which had factories in Nova Scotia and also in Ontario and Quebec, since these firms had a common pool of managers to ensure that their Nova Scotia plants were as well managed as those elsewhere.

"Almost with out exception, they said that there was little difference between the productivity of Nova Scotia workers and those in Ontario and Quebec, given similar conditions.

"Since productivity per man in Nova Scotia is, in fact, low, one is led to the conclusion that the organization of labour is inferior here."

Of all the other relative costs of input, the Dalhousie professor found that only product transportation showed any significant difference. . .the typical firm would be at a 2 or 3% disadvantage here.

"But this was on the basis of th present quality of management. . .if management were as good as in Quebec and Ontario, then this differential would disappear and we would stand equal."

Stressing that his analysis was directed toward an average or typical firm, he suggested that the Atlantic area does not have enough enterprising business people ready to exploit the available opportunities.

Prof. George pointed out that the creation of new manufacturing enterprises in this area is much less than in the central provinces, even when our small population is taken into account.

"Similarly, our rate of bankruptcies is low. . .this implies that our supply of entrepreneurs is poor — there are just too few people ready to take a chance."

Acknowledging that the role of entrepreneur applies to very few," in the Maritimes we are particularly badly placed."

One of the reasons he suggests for this factor is our historical development.



DR. ROY E. GEORGE is Professor of Commerce at Dalhousie.

He is especially interested in regional economics, with special reference to the manufacturing industry, and has carried out research projects for federal and provincial governments. He has also acted as a consultant on economic and manpower matters to federal and provincial governments, public and private companies, and to trade unions.

He has written various articles in professional journals and is the author of a book on the economic gap between the Atlantic Provinces and the rest of Canada entitled: *A Leader and Laggard: Manufacturing Industry in Nova Scotia, Quebec and Ontario.*

"We belong to one of the older parts of Canada and seem to have lost a lot of our original impetus...existing business families have intermarried and settled down into a cosy non-competitive atmosphere.

"A much larger portion of our firms are individual proprietorships or partnerships than is the case elsewhere, and the reins are handed down from father to son, whether the son has the qualities of his father or not."

The federal governments and the governments of the provinces have tried various devices to close the economic gap..." one thing is certain: it is that none of these measures has succeeded in closing the gap."

As an example he cited that in 1963 the Atlantic Provinces accounted for about 3.8% selling value of the national total.

"After eight years of incentives of various sorts, the percentage in 1971 was almost exactly the same."

He stressed that some of our present entrepreneurs" are first rate and can match their opposite numbers anywhere, and were it not for them we should be worse off than we are...our problem is that there are too few such men."

The federal government could help alleviate the problem, but in a different manner than at present.

Prof. George suggested that the federal government might do something to stimulate local business by directing its purchasing to producers in the poorer areas. "The federal government's activities are now so immense that its purchasing agents exercise very great economic power."

He felt that if the purchasing agents were directed to the Atlantic area," even if it was inconvenient and time-consuming and entailed energetically seeking out potential suppliers and encouraging them to gear up to the federal government's needs, then the effect on local business might be very significant."

A second solution would be greater use of industrial estates not only as a means of attracting outside firms, but to stimulate local entrepreneurs.

Returning to the management situation in the Atlantic Provinces, Prof. George examined the plight of young university graduates.

"The local business community has taken little interest in them unless they happened to be members of existing business families."

He stated that local businesses are reluctant to take the risk of taking a young, inexperienced graduate with the idea of building him up for eventual management positions. Rather, businesses feel it is safer to rely on people who are cheaper to hire and are less mobile because other businesses are less interested in them.

"...The basic difference between our business community and that of other parts of Canada is its attitude towards risk."

He added that there is substance in some of the complaints relative to the Atlantic area, and "we shall need subsidies and doles for some time to come,"but we could receive hand-outs for ever and still not become a viable region."

"We must accept that our salvation will, in the end, be in our own hands."



Barbara Howatt puts the finishing touches on a costume. She's the new artist in residence in the Department of Theatre.

## Philippe Entremont dazzles audiences

PHILIPPE ENTREMONT, who will appear at the Dalhousie University Arts Centre tonight, has been called "refreshingly different". The French virtuoso has been dazzling audiences with his keyboard artistry for nearly two decades.

Having performed with the world's virtuosi, he has been called by critics "le pianiste atomique" and "a young French pianist who is nothing less than a genius".

His widely acclaimed American debut was made at the National Gallery in Washington, D.C. on Jan. 4, 1953, when only 19 years of age, followed the next day by his orchestral debut at Carnegie Hall with the National Orchestral Association under the direction of Leon Barzin, where, in the words of the New York Times, he "brought down the house".

Entremont, a constant favourite with American concertgoers, has returned annually to the United States and Canada, performing with the leading American orchestras, in major concert series, and on many college campuses.

From the city of Philadelphia, in recognition of his long time association with the Philadelphia Orchestra and conductor, Eugene Ormandy, Entremont received the title of Good Will Ambassador — the first non-resident to be so honoured. One of their many record collaborations — the recording of Ravel's Piano Concerto in G — resulted in the pianist's first Grand Prix du Disque — France's highest record honour.

The New York Times headlined: "Entremont is cheered with Philharmonic" after the pianist's 1958 debut with Leonard Bernstein and the New York Philharmonic — establishing a long and creative kinship with Bernstein, the orchestra, and with the New York public.

Returning for a second time to the Mostly Mozart Festival at Philharmonic Hall in August 1971 — playing the only piano recital of the series — "Philippe Entremont plays the piano with an appealing mixture of insouciance and confident charm", said the New York

Times. The pianist's second solo recital on the Great Performers series at Lincoln Center's Philharmonic Hall was April 1972.

His charm, brilliant technique and innate musicality make him a most satisfying performer. In Cleveland, The Plain Dealer reported: "With a brilliant performance of Ravel's Piano Concerto in G, Philippe Entremont made himself a hero. The mercurial French pianist, guest soloist with Pierre Boulez and the Cleveland Orchestra, played with deep tone and virtuoso technique. The audience of 3,367 responded with enthusiasm".

After a sensational appearance, the Boston Herald wrote, "The most interesting talent of his generation to be unveiled in this city in many seasons; and he belongs in the select company of the world's finest virtuosi".

Entremont's superb musicianship does not stop at the piano. In 1967 he assumed the dual role of conductor and pianist recording Mozart with the Collegium Musicum of Paris — "His special gifts of musical veracity and taste, wrote Time Magazine, "enhance familiar music and make it fresh".

In 1968, he toured a dozen musical centers of France with the London Chamber Players. He has conducted the Hamilton Symphony in Canada; and, members of the Montreal Symphony for the CBC, a television special which was repeated across Canada in June 1971.

On the continent, he has conducted the Marseilles and Palermo Orchestras; and, last season, the Royal Philharmonic Orchestra in London in a recording of Satie's "Parade" and the Gymnopédies. Noting his American debut in the dual capacity of conductor-pianist during the Mostly Mozart Festival at Philharmonic Hall in August 1971, the New York Times wrote: "It was a French approach to Mozart — elegant but not fussy, cool but not insensitive. And it was very good".

Tonight's concert begins at 9:30 p.m. This event is sponsored by Dalhousie Cultural Activities and is part of the series of special events offered by Dalhousie University this year.

## Costume designer joins faculty

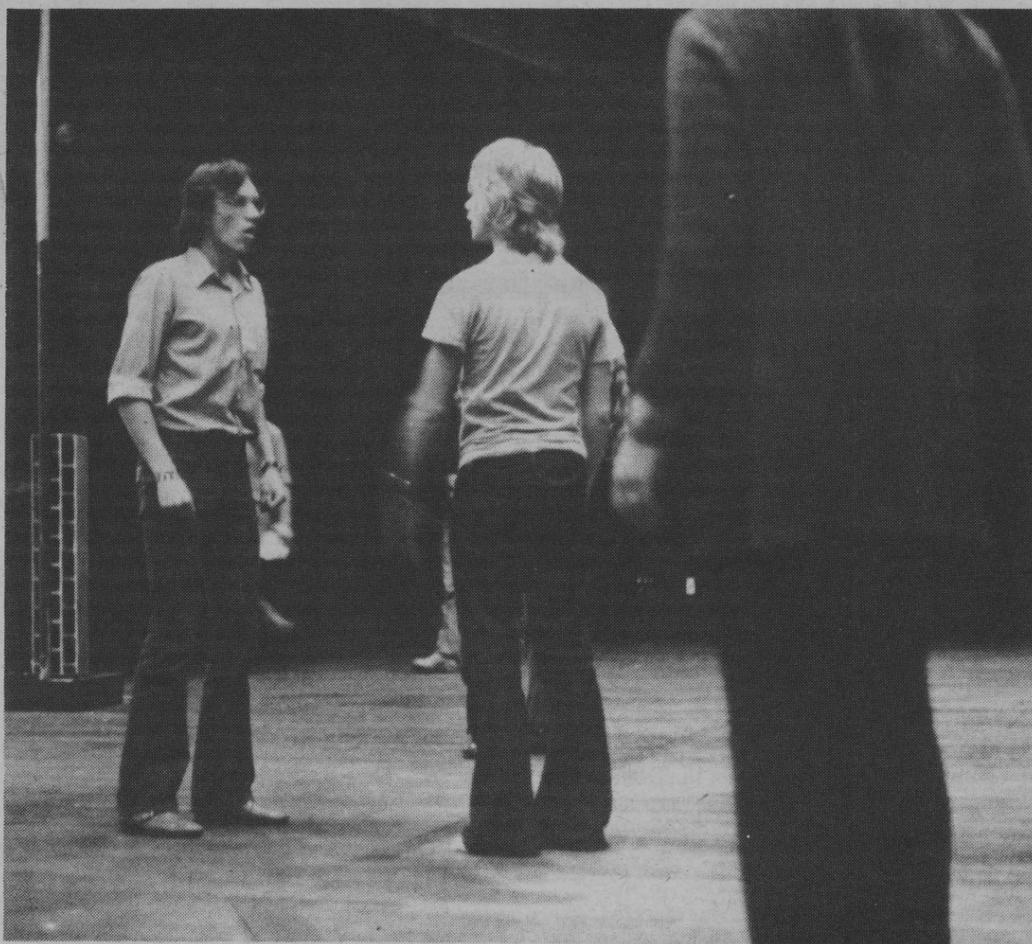
Dalhousie has a second artist in residence, costume designer Barbara Howatt. Her appointment to the Faculty of Arts and Science's department of theatre is made possible through a Canada Council award. An earlier Canada Council grant was made for the support of Gary Karr, double bass virtuoso and one of two musicians-in-residence who make up the Karr-Lewis duo.

Miss Howatt's appointment is in co-operation with Neptune Theatre. She will work in the department for two seven-week periods and in the interim will assist with costume design at Neptune.

Miss Howatt studied pattern drafting at Westminster Technical College, London, England and served an apprenticeship in historic costume cutting at Fortress Louisbourg, Louisbourg, Nova Scotia under a Canada Council grant. She gained further experience as a first hand seamstress at the Avon Theatre, Stratford, Ont. Her association with Neptune began in 1968 when she was a mistress and assistant in wardrobe and last season as cutter and supervisor. She will return this season in the same capacity.

Professor Lionel Lawrence, chairman of the department of theatre, said that Miss Howatt's appointment was in keeping with the department's aim of providing opportunities for top rate artists in specialized theatrical crafts to spend time working and studying in the department.

While at the university she will assist the costume mistress and help enrich student experiences through talks and demonstrations. She will offer workshops for community theatres, high schools and the drama section of the Nova Scotia continuing education program in fine arts. In addition she will act in a consultative capacity to staff in the costume area and advise them on their library holdings in this field.



Rehearsal scene from *The Caucasian Chalk Circle*.

## Theatre students to perform *The Caucasian Chalk Circle*

Dalhousie's Department of Theatre will perform Bertolt Brecht's famous play *The Caucasian Chalk Circle* in the Dunn Theatre, Dalhousie Arts Centre, opening on Thursday, Nov. 2, and running through Sunday, Nov. 5.

The 26 member cast for this play, is primarily chosen from first and second year students from all disciplines in Dalhousie. The play is being performed in a style quite different from that in which it has usually been performed.

The play unfolds episodically along two parallel lines, at a time of revolution. One narrative follows the decisions and experiences of a servant girl who saves and escapes with baby son of the deposed and beheaded ruler. The other line traces the events in the life of the

clerk, Azdak, who is made judge. The play leads up to a confrontation between the servant girl, Grusha, who raised the child, and the mother who gave birth to the child. The judge decides the issue by prescribing the well known chalk circle test. A firm judgement ensues on property ownership.

The translation being used is that of James and Tania Stern with W.H. Auden. Brecht wrote the play in 1944-45 while in the United States, where it was first performed. In Germany the play was first performed in 1954.

Tickets for this production are reserved, free, and available at the Central Box Office, Dalhousie Arts Centre.



## The Mikado

### Nov. 10, 11, 12

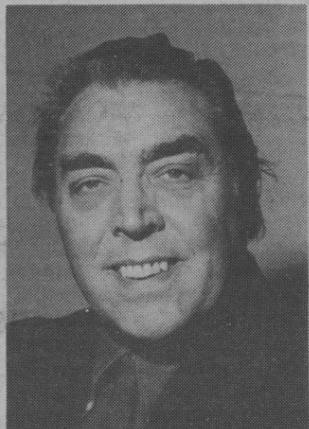
Dalhousie Cultural Activities' first opera of the season will be Gilbert and Sullivan's delightful comedy **THE MIKADO**. Considered by many of the Savoy buffs to be the most popular of the series, the MIKADO has proved to be the biggest money-spinner of the past century.

The opera will be presented Nov. 10, 11 and 12 at the Cohn Auditorium.

The stage director, A. G. Scott-Savage, a professor in the Dalhousie Music Department, has been a member of the D'Oyly Carte Opera Company of London and has tried to bring to this production the regular Savoy treatment.

For many hours the cast has been drilled in the appropriate fan movements and routines developed in the original production, and trained to recapture the musical tempos that were demanded by the great duo of Gilbert and Sullivan.

The chorus has been recruited from students of the Music Department, from other departments on campus and from



A.G. Scott-Savage

Gilbert and Sullivan lovers throughout the community. The principals include Nancy Delong as Yum-Yum, Jacqueline Harmer as Katisha, Philip May as Pooh-Bah, Scott-Savage as Ko-Ko and Ray Grant as the Mikado of Japan. The original MIKADO opened at the Savoy Theatre in 1885 and ran for 672 performances. Since that time, it has been performed in many countries and many languages, including Japanese, and is considered the greatest of the Savoy operas.

Tickets for the performances are \$4 and \$3, and \$3 and \$2 for students. For reservations phone 424-2298.

## First poetry reading

The first of this year's series of readings by Canadian poets at Dalhousie will be by philosopher-poet Francis Sparshott of Toronto this evening.

The reading, co-sponsored by the Canada Council and Dalhousie's Department of English, will take place at 9 p.m. in Room 406 of the Arts

Centre. The event is free and open to the public.

Francis Sparshott, a native of England, has been teaching philosophy at the University of Toronto for more than twenty years. He is the author of three books of philosophy and two books of poetry — *A Divided Voice* (1965) and *A Cardboard Garage* (1969).

## John exhibition opens

The Augustus John exhibition at the Dalhousie Art Gallery will be officially opened tonight by Lieutenant-Governor Victor deB. Oland. Also taking part in the opening ceremonies is Sir Caspar John, a former first Sea Lord of the Royal Navy, and son of Augustus John.

The exhibition comprises 40 works including sketches of Canadian soldiers of World War

I which John did as an official war artist to the Canadian forces (a project initiated by Lord Beaverbrook).

The exhibition will include drawings, cartoons, engravings and paintings.

Augustus John, who died in 1961 at the age of 83, held the Order of Merit and was a Royal Academician.

Four years ago, Sir Caspar

John told a Canadian journalist he felt that a number of his father's works, which had been left to him, and which were associated with Canadian military history as a result of the artist's position as a war artist under the Canadian War Memorial Fund, ought to have a permanent home in Canada.

The Dalhousie exhibition continues until November 26.

## Symposium next weekend

The Dalhousie University Department of Music will host the second annual symposium of music faculties from the Atlantic Association of Universities Nov. 10 and 11.

About 60 musicians, as well as music department heads from provincial education departments are expected to attend the symposium at the Dalhousie Arts Centre.

A number of papers will be presented Friday afternoon, Nov. 10, on various music topics. That evening Dalhousie will host a dinner for those attending and all participants are expected to attend the

opening of the opera, *The Mikado*, at the Rebecca Cohn Auditorium.

The Karr-Lewis Dup will start off Saturday's activities with a recital at 9 a.m. in the Cohn Auditorium. The recital is also open to the general public, free of charge.

Among those presenting papers will be Stanley Saunders and Michael Miller from Mount Allison University, Wolfgang Bottenburg from Acadia and Dalhousie's David Wilson.

Organizer of the symposium is Prof. A.G. Scott-Savage of the Dalhousie Department of Music.

## SUB has new look

The Student Union Building has taken on a new look, but it's not visible from the exterior.

But inside... a remarkable facelifting to the former Triple Room, now called the GraWood Lounge. New decor, new furnishings and a new atmosphere made it a welcome addition to the SUB and the campus.

The GraWood is designed for low key entertainment. It's not meant to take the overflow from Jazz & Suds or Pub Stop, according to Student Union vice-president Joan MacKeigan.

"The program in this room is designed for those who wish to hear good music as well as have a drink, not vice versa...It's a place where a guy can take his date and not worry about someone spilling a drink over her dress," said Miss MacKeigan. The new facility has a coffee

house-lounge atmosphere and entertainment will be multicultural.

The GraWood is a start to solving the entertainment program, says Miss MacKeigan, "but we still have a lot of students who will never use the SUB...we need a more diverse program."

To this end an interest-finder questionnaire is being issued to all students.

"By tallying the results we can determine what activities and programs to set up...we want to know what individuals want," she said.

"We are always looking for better methods for two-way communication between the student government and the students."

The new lounge is located on the third floor of the SUB. All events will run from 9 p.m. to 1

a.m. Following is the schedule for the month of November:

Nov. 3— CHARLES DOUCET— three man electrical jazz band.

Nov. 9— DOUG SMITH— country, rock and blues.

Nov. 10 — PENNY MacAULAY & FRIENDS — popular folk group.

Nov. 16— GORDIE FADER— jazz piano.

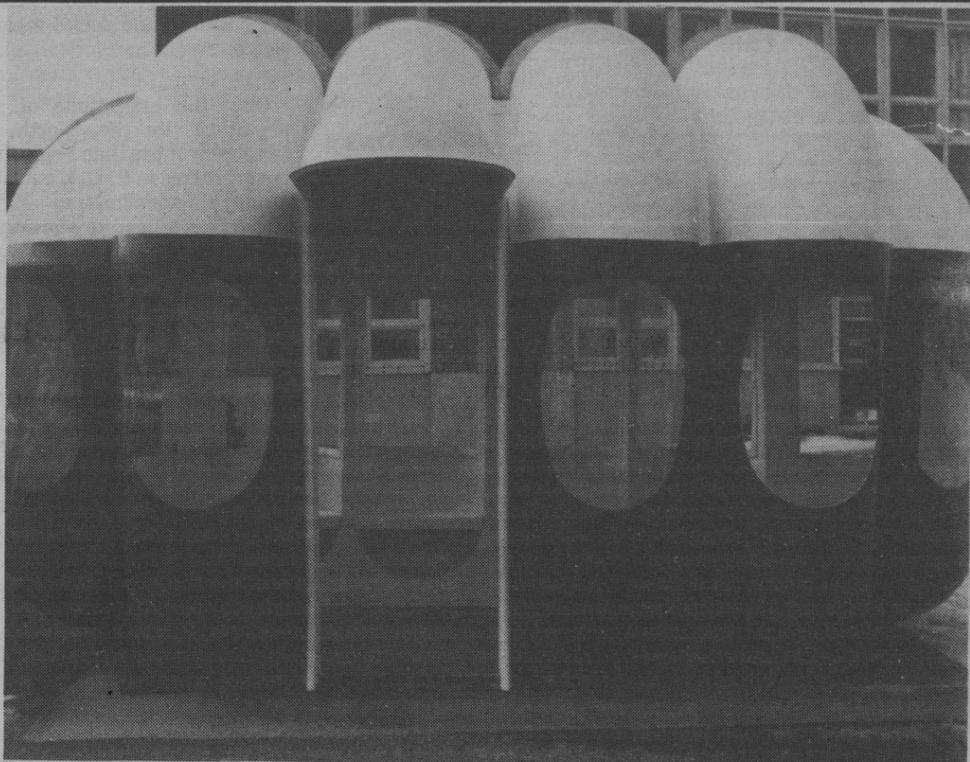
Nov. 17 — WES McKAY'S— jazz quartet

Nov. 18— GRADUATE STUDENTS NIGHT.

Nov. 23— DAVID REDEKOP— ballad folk artist.

Nov. 24— SMACK-WATER— folk group.

Nov. 30— WALTER PURCELL— classical guitarist.



One of the proposed bus shelter designs being studied by the City for placement on university property. Shelters will be placed at the corners of Coburg Road and LeMarchant Street and Coburg and Oxford Street.

K. Scott Wood, research associate with the Institute of Public Affairs, is an applied social scientist concentrating on the area of regional and urban development.

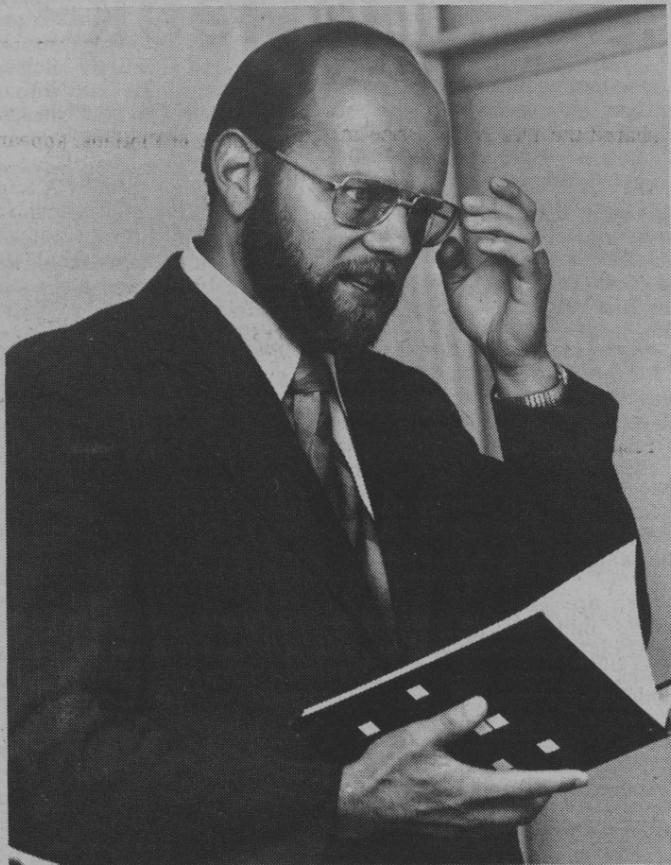
Mr. Wood is a native of Oregon (born in Medford and raised in Eugene), and a Canadian citizen since 1971.

His academic training includes a master's degree in economics from the University of Oregon, study at the University of Oslo in Norway, and completion of his PhD course requirements in economics at the University of Western Ontario.

Before joining the Institute in 1964, he did research work for the staff at the University of Oregon's Bureau of Business and Economic Research and served as a research associate for one year at the Christian Michelsen Institute in Bergen, Norway.

He has lectured in the economics departments of both Dalhousie and Western Ontario and has advisory and consultative experience with the Nova Scotia departments of public welfare, labour, and trade and industry. In addition, he has also served in a similar capacity with such agencies as the Nova Scotia Voluntary Economic Planning Board, ARDA, ADA, and DIAND.

He is the author of a number of studies and later this fall will give lectures to faculty and students in McGill's department of political science on the subject of "New Developments in Social Accounting for the purposes of Regional Planning".



## Arctic fisheries next on the list

The feasibility of developing Arctic fisheries will also occupy some of Scott Wood's time in the next few months as he undertakes a preliminary study in this regard.

The study is being prepared as part of an effort to create employment opportunities for native peoples in the North, based on renewable resources and the assumption that native peoples can be satisfactorily interested and trained for the jobs that will be created.

Under the study, Wood will review existing documents, reports and studies relevant to the question of Arctic fisheries, outline the present dimensions of the industry in the Yukon and Northwest Territories, investigate the technical and market feasibility of a greatly expanded Arctic fisheries and make preliminary assessment of the potential for developing the fisheries.

# Wood looks to the North

An expanded government role in all aspects of life in Northern Canada could lead to unforeseen problems without careful planning and evaluation of programs, says K. Scott Wood, research associate at Dalhousie Institute of Public Affairs.

The point of departure in a major social science research project he is conducting is that the organization of economic and social data is a priority in guiding public and private decision makers.

Without this data, in its proper framework, to provide measures of progress and information on an area's social and economic structure, costly mistakes will be made, according to Mr. Wood.

He is carrying out the project on behalf of the federal Department of Indian Affairs and Northern Development.

### ...increased awareness and interest in the North

The project began as an effort to devise a system of economic accounts for the Yukon and Northwest Territories which would provide a regional parallel to Canada's National Accounts. However, it was realized early in the project that, while the economic information contained in such a system of accounts was needed, that social objectives and variables involved in Northern Development also had to be considered.

An expanded government role in the North may, in the absence of careful planning and evaluation of programs, lead to unforeseen consequences of public policy and government spending which create problems greater than the ones the federal government sought to solve.

Fortunately, he adds, there has been in the last few years an increased awareness and interest among government officials and social scientists for the need for a more comprehensive system of social accounts for the North. It combines both an economic accounting system and a set of indicators, or a social report, which can provide information about the performance and structure of non-economic variables. Both are important to the development process.

There are at least four main factors which have contributed to the renewed attention given by government officials to the problems of economic and social measurement in the North.

One, the magnitude of government expenditure in the North is substantial, (Probably more than twice the spending of all governments in P. E. I. and about one-half the level of spending in Nova Scotia) and generates a need to consider more carefully the impact of this spending.

Second, the implementation of the Program-Planning-Budgeting System (PPBS) in all government departments has increased the pressure on DIAND to measure the progress of its programs, social as well as economic, against program objectives.

Three, the discovery and exploration of oil and gas in the MacKenzie Delta will markedly effect the whole social fabric of the native peoples.

Four, native people are becoming more organized and are beginning to ask questions about the way in which they will be, or are being, affected by public and private development decisions.

### BACKGROUND

While on a leave of absence from the Institute of Public Affairs (from 1968-70), Wood completed a study which gave preliminary

consideration to possible social accounting structures for use in the North based on research in one northern district.

This came at a time when DIAND was formulating alternative approaches to development in the North. On the basis of this and a series of interrelated studies, Wood's leave of absence was extended for one year while he went to Ottawa as acting head of the regional planning and manpower section in the northern economic branch of DIAND.

During his Ottawa stay, he established a research program designed to assist in the formulation and development of a regional planning system for the Canadian North.

On his return to the Institute in September, 1971, Wood and his colleagues were well into a \$19,000 project which he undertook with funds from DIAND for the purpose of further developing and implementing his social accounting system.

### FIRST PLACE

The one aim of this phase of the project was to qualify and describe the impact of the federal government on northern development. It sought to do this in three ways: one, to analyze the federal government's activities and programs for the North; two, to examine the goals of economic development with a view to understanding and measuring them; and three, to study the mechanisms that link government policy instruments to goals.

Most of the work in connection with the construction of the government account was done by Mr. Wood's former colleague at the Institute, John Palmer.

Mr. Palmer has subsequently joined DIAND as a staff officer. Mr. Palmer's report on the extent of government activity in the North is the most comprehensive overview ever produced, and constitutes an important tool for northern development planners.

### ...social measures must complement economic measures

Another key aspect of this phase of the project was the preliminary consideration of possible social indicators for the North. A pilot project was undertaken in the Lower MacKenzie River Delta (which includes the town of Inuvik) in which attention was focused on a few selected social variables such as crime rates, education data, migration, income, family and size and political participation.

In submitting his final report, Mr. Wood concluded that this aspect of the project had served to sharpen departmental awareness of the need for more comprehensive social measurement to complement the economic measures of development progress traditionally used.

Moreover, the pilot project suggested several directions which could be followed in further work on a social report or social indicators for the North.

### FINAL PHASE

In October, Mr. Wood received a further grant of \$12,800 to complete the Northern Social Accounts project. Personal income by settlement, gross territorial production, and territorial exports and imports will be in this work estimated.

In addition, Mr. Wood will seek to further develop a social report or a set of social indicators for the North as an extension of the economic accounts and to examine other types of accounts which might be useful for northern development planning purposes.

## Shipton co-chaplain at Mount

Sister Catherine Wallace, president of Mount Saint Vincent University, has announced the appointment of Rev. Don R. Shipton as Anglican co-chaplain at the university.

He will work with Father Daniel Meunier and Sister Sheila Moore.

Born in 1944 in Redhill, Surrey, England, Rev. Shipton came to Canada in 1956 and attended Prince of Wales College, Charlottetown, P. E. I., and University of King's College in Halifax, he was ordained an Anglican priest in May, 1971.

Rev. Shipton worked as hospital chaplain at Victoria General Hospital in Halifax before his appointment as rector of the parish of Brooklyn, Queen's County.

In September 1971, he married Brenda Pierce of Halifax, a deacon in the Anglican Church.

## Marty appointed Professor of French

Fernand Marty has been appointed Professor of French in the Faculty of Graduate Studies.

Professor Marty was educated in his native France and in the United States. He was captured by the Germans in 1941, escaped to Spain, and served for the rest of the war in Africa, Italy, France and Germany as an interpreter attached to the U. S. Air Force.

In 1947 he began a distinguished career in American university language departments. He has specialized in the teaching of second languages. Much of his work has focused on the techniques of teaching in language laboratories.

He has been Director of the Language Laboratory at Middlebury College, Wellesley College, and Hollins College. He has published eight books on language teaching, and numerous articles on both linguistics and language training.

His Active French series is prescribed for first and second year French language classes at Dalhousie, and is used by French teachers from Texas to the North West Territories.

At Dalhousie, Professor Marty will be the leading figure in a team developing new language courses, particularly in the fields of computer assisted instruction and rapid comprehension of the spoken word. Professor Marty has chosen the facilities and personnel of the Dalhousie language laboratory to carry out this new programme of research while he continues to perfect a similar programme (the PLATO project) at the University of Illinois.



Brian Smith

## Smith named president of provincial body

W. Brian Smith, president of the Dalhousie Student Union, has been elected president of the newly-formed Nova Scotia Association of Student Union.

The first tasks of the association will be to undertake a comprehensive review of the provincial student loans system and to press for the release of the provincial government's study on Xavier College (since re-named St. Francis Xavier University, Sydney Campus), which was started almost five years ago, but has yet to be made public.

The association represents 17,000 university students in Nova Scotia.

"The main thrust of the association will be to defend and advance the interests of post-secondary students in Nova

## Noted physicist to give lecture, seminar Nov. 15

The impact of science on modern society will be the focus of two talks by Dr. Brian B. Schwartz to be presented on Wednesday, Nov. 15, under the sponsorship of the Dalhousie Physics Department.

Dr. Schwartz, who is Associate Professor of Physics at the Massachusetts Institute of Technology as well as a member of the research staff at the Francis Bitter National Magnet Laboratory, will give a public lecture entitled

"Towards a New Scientific Method and Responsibility, or Else" at 8 p.m. in Theatre B of the Tupper Building.

Dr. Schwartz is one of the founders of the Forum on Physics and Society, a division of the American Physical Society, which has been actively trying to make physicists more conscious of the social implications of their research. He is presently program chairman of the Forum and a member of the executive committee.

Dr. Schwartz will also present a seminar entitled "Superconductivity Superstar" at 4 p.m. in Room 101 of the Sir James Dunn Science Building.

This talk, which is also open to the public, will be a non-technical discussion of the potential applications of the remarkable phenomenon of superconductivity.

Some of these, such as high-speed surface transportation and transmission of electrical energy over great distances without power loss, may eventually prove to hold great economic promise for Canada.

Dr. Schwartz has been active in the fields of superconductivity and magnetism. He received his Ph.D. in 1964 from Brown University, where his research advisor was Prof. Leon Cooper, who recently shared the 1972 Nobel Prize in Physics for his part in developing the theory of superconductivity.

## Faculty changes at School of Social Work

A number of faculty changes, including additions to the staff, at the Maritime School of Social Work of Dalhousie University have been announced.

New faculty members include Mrs. Patricia Tanabe, Glenn G. Drover, H. E. Newell and Mrs. Alexa McDonough.

Mrs. Tanabe is a graduate of the University of British Columbia School of Social Work and has also studied at New York University Graduate School of Education and the College of Wooster. In 1968 she began studying for her doctorate degree in social work at Bryn Mawr College.

Mrs. Tanabe's experience includes employment at the Alexandra Neighbourhood House, Vancouver; The Children's Aid Societies of Vancouver and Winnipeg; the National Council of Churches of Christ in the United States; the National Scholarship Service and Fund for Negro Students, New York; and the YWCA in the United States.

Glenn G. Drover is a graduate of the University of Toronto, Trinity College, in Social Sciences and Syclyffe College in theology. He received his Master's of Social Work degree from Fordham University School of Social Work, with concentration in social planning. For the past two and a half years he has been studying at the London School of Economics, from which institution he expects to soon receive his doctorate degree.

At the Maritime School of Social Work he will serve as lecturer and field instructor, and,

in addition, will assume responsibility for the development of a concentration in social policy and planning.

H. E. Newell has joined the faculty as a part-time field instructor and lecturer. A graduate of Acadia University and the Maritime School of Social Work, he was, for three years, executive director of the Welfare Council, Halifax-Dartmouth area, and for the past three years was associated with Nova Scotia Newstart in a research capacity. In addition he has taught courses at Mount Saint Vincent University, Acadia University, College Ste. Anne, and served as a field instructor for the Maritime School of Social Work.

Mrs. Alexa McDonough has become a full time member of the faculty, having previously served as a part time field instructor and lecturer. She is a graduate of Dalhousie, Smith College and the Maritime School of Social Work. From 1968 to 1971 she was special projects supervisor, Social Planning Office, City of Halifax.

The following faculty changes have also been announced:

Professor Redge Craig assumes responsibility as co-ordinator for the Method Sequence; Professor Daniel O'Brien assumes responsibility for co-ordination of the Human Behaviour and Social Environment Sequence; and Prof. John Rose becomes co-ordinator of Field Instruction. Prof. Mary Lou Courtney, formerly co-ordinator of Field Instruction, remains on the faculty as field instructor and lecturer.



H. A. Armstrong

## Armstrong professor of Ancient Philosophy

A. H. Armstrong has been appointed Professor of Ancient Philosophy jointly in the Departments of Classics and Philosophy.

Professor Armstrong was educated at Jesus College, Cambridge and the University of Vienna. Before taking up his appointment at Dalhousie, he was Gladstone Professor of Greek at the University of Liverpool.

The author of several books and numerous articles, Professor Armstrong is best known as a Plotinus Scholar. His first book, *The Architecture of the Intelligible Universe in the Philosophy of Plotinus*, appeared in 1940. His second book, *An Introduction to Ancient Philosophy*, has appeared in four English editions since its publication in 1947. The latest edition has been a Spanish translation published in Buenos Aires in 1966.

Professor Armstrong has been a regular contributor to the *Encyclopaedia Britannica*, has edited selections of translations of the works of Plotinus, and is the general editor of the *Cambridge History of Later Greek and Early Mediaeval Philosophy*. He is the editor of the volumes of Plotinus' work in the Loeb Classical Library. His *Christian Faith and Greek Philosophy* (written with R. A. Markus) was published in 1960 and his *St. Augustine and Christian Platonism* was published in 1968.

In 1970-71 he was a Killam Research Fellow at Dalhousie.

Professor Armstrong is a Fellow of the British Academy, and has recently been nominated to receive the Aquinas Medal from the American Catholic Philosophical Association.

## Meyerhof elected EIC fellow

Dr. G. G. Meyerhof, P. Eng., head of the Department of Civil Engineering at the Nova Scotia Technical College in Halifax has been elected Fellow of the Engineering Institute of Canada. This is the highest grade honor that the EIC bestows and is given in recognition of distinguished service in the profession of Engineering.

Dr. Meyerhof received the award at the Annual EIC Congress held in Saskatoon.

In honoring Dr. Meyerhof the citation stated "that he has made noteworthy contributions in the field of engineering and later in the field of education, and that he contributed greatly in the area of soil mechanics which led him to become president of the Canadian Geotechnical Society."



Fernand Marty

## Language society formed

An interdepartmental Society for the Discussion of Topics in Language Teaching and Linguistics has been organized at Dalhousie.

People involved in the teaching of French, German, Russian and Spanish are represented in the society, whose normal activities consist of a report on a given topic in the field, followed by discussion.

Future plans include the invitation of guest speakers from other universities, with the intention that these lectures would be open to the public.

Those interested are asked to contact the Language Laboratory secretary at 6479.

# bulletin board

## Friday, November 3

All day — Direction Atlantic workshop. Arts Centre.

10:15 p.m. — School of Library Service lecture by John N. Berry 111. "Libraries: The Politics of Survival" MacMechan Auditorium, Killam Library.

2:30 p.m. — Field Hockey, DAL at UNB.

4-6 p.m. — Meeting of all faculty women to further discuss common interests and concerns. Faculty Club.

8:30 p.m. — Theatre Dept. production, "Caucasian Chalk Circle". Dunn Theatre, Arts Centre. Admission free.

9 p.m. — Jazz and Suds, Green Room, SUB. Admission \$1.50 with ID.

9 p.m. — Poetry reading by Francis Sparshott. Room 4-06 Arts Centre. Admission free. Open to the public.

9:30 p.m. — Phillippe Entremont, pianist. Rebecca Cohn Auditorium, Arts Centre. Tickets: \$3.50, \$4.50; Students: \$2.50, \$3.50. Box Office 424-2298.

9:30 p.m. — Shirreff Hall Ball.

## Saturday, November 4

11 a.m. — Field Hockey, DAL at Mt. A.

11 a.m. — JV soccer — NSCC championship at Turo.

11 a.m. — Cross country NSCC championship at Truro.

1:30 p.m. — Football, DAL at St. F.X.

1:30 p.m. — Hockey, CIAU-Hockey Canada/ Big Brother Regional Tournament at Dalhousie Rink.

8:30 p.m. — Theatre dept. public production "Caucasian Chalk Circle". Dunn Theatre, Arts Centre. Admission free. Reserved tickets available at the Box Office, 424-2298.

9 p.m. — "Stove Probe", Bronson House, for all DAL students.

9 p.m. — Pub Stop. Cafeteria, SUB. Admission \$1.

9 p.m. — Dal Radio Record Hop, Cafeteria, SUB. Admission 50¢.

## Sunday, November 5

3 p.m. — C.B.C. Festival Concert — Atlantic Symphony Orchestra with conductor, Jean Deslauriers. Rebecca Cohn Auditorium, Arts Centre. Admission free.

7 p.m. — Folk Mass, Council Chambers, SUB.

8:30 p.m. — Theatre dept. production, "Caucasian Chalk Circle".

## Monday, November 6

3:30 p.m. — Mathematics Colloquium. Room 2922, Life Sciences Centre. Lecturer is Prof. Herman Brunner, Dalhousie. The Numerical Solution of a Class of Abel Integral Equation Encountered in the Spectroscopy of Cylindrical Plasma Column with Rotational Symmetry".

8:15 p.m. — Dalhousie-King's Reading Club. Miss W. Ajami will speak on Some Exotic Aspects of the Middle East. The meeting will be held at the home of Mrs. R. M. MacDonald.

## Tuesday, November 7

9 a.m.-5 p.m. — A.M.C. seminar on Communications. MacMechan Auditorium, Killam Library.

12:15 p.m. — Lunch Hour Films on Art, Civilisation #4 "Man-The Measure of All Things". Room 4-06, Arts Centre. Admission free.

4:30 p.m. — Weekday Mass. 6124 South Street.

8 p.m. — I.P.A. discussion series, "The Citizen, Law, and Society". Room 234, Arts and Administration Building.

8 p.m. — French Club Film Series. "Les Fourberies De Scapin". MacMechan Auditorium, Killam Library.

## Wednesday, November 8

9 a.m. - 5 p.m. — A.M.C. Communications Seminar. MacMechan Auditorium, Killam Library.

12:30 p.m. — Weekday Mass. 6124 South St.

4 p.m. — Physics Seminar, "Galactic and Extragalactic Globular Clusters" with Dr. R. Racine, Dept. of Astronomy, Univ. of Toronto. Room 101, Sir James Dunn Science Building.

7:30 p.m. — Dalhousie Concert Band practice — Room 121, Arts Centre.

8 p.m. — Mount Saint Vincent Film Society, "Hunger" Auditorium B, Seton Academic Centre. Admission free.

8 p.m. — Young Alumni Club. "Are There Stars and Stripes Around The Maple Leaf?" Weldon Law Building.

8:15 p.m. — Nova Scotia Institute of Science Meeting. Dr. Racine, University of Toronto. "Local expansion rate of the Universe — the observational problem." Room 115, St. Mary's Academic Residence.

## Thursday, November 9

12:30 p.m. — Killam Library Film Series "Three Country Boys". MacMechan Auditorium, Killam Library. Admission free.

12:30 p.m. — Physical Education Forum. "Behavior modification in competitive swimming", with Thomas McKenzie, Parkside School, P.E.I. and Dr. Brent Rushall, Dalhousie University. Room 217, Arts and Administration Building.

5:30 p.m. — Weekday Mass. 6124 South St.

8 p.m. — Dalhousie Chamber Orchestra practice. Room 121, Arts Centre.

## Friday, November 10

p.m. — Association of Atlantic Universities Symposium on Music.

8 p.m. — Hockey game. DAL at St. F.X.

8:30 p.m. — "The Mikado" Rebecca Cohn Auditorium, Arts Centre. Tickets: \$3. and \$4. Students: \$2. and \$3. Box Office: 424-2298.

9 p.m. — Jazz and Suds. Green Room, SUB. Admission \$1.50 with ID.

## Saturday, November 11

Remembrance Day — no classes.

9 a.m. — Karr-Lewis Duo recital. Rebecca Cohn Auditorium, Arts Centre. Admission free.

10 a.m. — AAU Symposium on Music, Arts Centre.

8:30 p.m. — "The Mikado". Rebecca Cohn Auditorium, Arts Centre. Box Office: 424-2298.

9 p.m. — Pub Stop. Cafeteria, SUB. Admission \$1.

## Sunday, November 12

3 p.m. — Nova Music. Foyer of the Arts Centre. Admission free.

7 p.m. — Folk Mass. Council Chambers, SUB.

8:30 p.m. — "The Mikado". Rebecca Cohn Auditorium. Box Office, 424-2298.

## Monday, November 13

8 p.m. — Hockey game. SMU and DAL. Halifax Forum.

8:30 p.m. — Alliance Francaise film series, "Les Amoureux du 'France'" by P. Grimblat. MacMechan Auditorium, Killam Library.

## Tuesday, November 14

12:15 p.m. — Lunch Hour Film on Art. "Watts Tower Theatre Workshop". Room 4-06, Arts Centre.

4:30 p.m. — Weekday Mass. 6124 South Street.

8 p.m. — discussion series, "The Citizen, Law, and Society". Room 234 Arts and Administration Building. (part of a ten-week series)

## Wednesday, November 15

12:30 p.m. — Weekday Mass. 6124 South Street.

4 p.m. — Physics seminar. Guest speaker Dr. Brian B. Schwartz, Massachusetts Institute of Technology. "Superconductivity Seuperstar". Room 101, Sir James Dunn Science Building. Open to the public.

7:30 p.m. — Dalhousie Concert Band practice. Room 121, Arts Centre.

8 p.m. — Public Lecture. Dr. Brian B. Schwartz, "Towards a New Scientific Method". Theatre B, Tupper Building.

## Thursday, November 16

12:30 p.m. — Killam Library Film Series; "You Don't Back Down". MacMechan Auditorium, Killam Library.

4 p.m. — Public seminar by the Committee on African Studies. Guest speaker, Professor Immanuel Wallerstein, Sociology Department, McGill University. "Liberation Struggle in Southern Africa: Dilemmas of the Movements". Board and Senate Room, Arts and Administration Building.

4 p.m. — Inorganic Chemistry Seminar — P. E. Caro will be speaking on "Divalent rare-earth elements and the excited 4fn-5d configurations". Room 306 Chemistry Building.

5:30 p.m. — Weekday Mass. 6124 South Street.  
8 p.m. — Dalhousie Chamber Orchestra practice. Room 121, Arts Centre.

## Friday, November 17

10:15 a.m. — School of Library Service lecture: "An Author looks at the Canadian Book Scene" with guest author Miss Kay Hill. MacMechan Auditorium, Killam Library.

9 p.m. — Jazz and Suds. Green Room, SUB. Admission \$1.50 with ID.

## Saturday, November 18

1 p.m. — Dalhousie Art Gallery, Arts Centre. Graphic Art Show and sale.

8 p.m. — Basketball. DAL at ST. F.X.

9 p.m. — Pub Stop. Cafeteria, SUB. Admission \$1.

## Sunday, November 19

2 p.m. — Hockey — DAL at UPEI.

3 p.m. — Sunday Concert Series — Karr-Lewis Duo—String Bass and Harpsichord. Rebecca Cohn Auditorium, Arts Centre, Admission free.

7 p.m. — Folk Mass. Council Chambers, SUB.

## Monday, November 20

3:30 p.m. — Mathematics seminar. Room 2922 Life Sciences Centre. Topic: "Structure and Homomorphisms of Minimal Sets" with Prof. Joseph Auslander, University of Maryland.

8:30 p.m. — Atlantic Symphony Orchestra Concert — Barry Tuckwell, French Horn. Rebecca Cohn Auditorium, Arts Centre. Tickets: \$7.70, \$5.50 and \$4.40; Students: \$5.95, \$3.95 and \$2.95. or by subscription. Box Office 424-2298.

In future the Bulletin Board will run from Monday to Sunday.