

## Food additives: We should know more

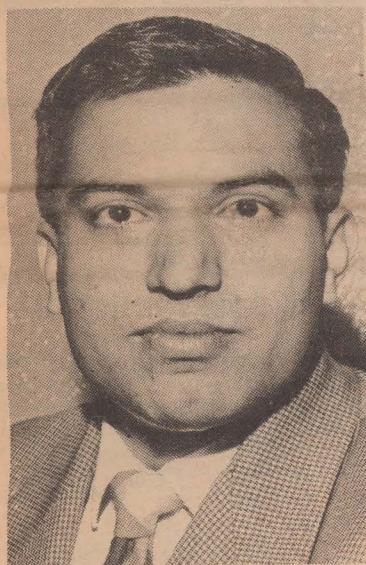
By Roselle Green

Whatever you add artificially to the environment—and there is an abundant variety of items—begs the question ... IT IS HARMLESS?

Some food additives—there are several thousand in the form of preservatives, flavour enhancers, artificial colouring, nutrient and diet supplements—are known to pose genetic hazards.

Yet testing before chemical agents such as these hit the market is almost unknown.

The triple problem of testing, safety and regulation are issues Dr. Om Kamra, a radiation biologist at Dalhousie, has raised because of his research findings and because he is concerned about the increasing number of environmental contaminants in use.



Om Kamra's universe is radiation biology. He wants testing, safety and regulatory procedures to halt the damaging effects of artificial contaminants introduced to the environment. [A/V Services]

One area where some precautions have been taken is in the field of radiation. There is a considerable amount of public education on the dangers of excessive radiation. Regulations demand the continual monitoring of radiation labs. Safety standards must be adhered to, and those who use some form of radiation in their work are expected to know the precautions that must be taken.

These procedures, however, don't exist when it comes to other environmental intruders now in use.

The agents fall into two categories. The physical agents comprised of ionizing and non-ionizing forms of radiation; and the chemical variety found in agricultural and industrial chemicals, drugs, cosmetics and food.

The hazards present themselves in various forms, says Dr. Kamra. Red No. 2 is a colouring agent added to pop, jello and cosmetics to make them more pleasing to the eye. It's an aniline dye derived from coal tar.

It is carcinogenic and is known to cause allergic reactions in some people.

One industrial chemical that has proven to be harmful is vinyl chloride, a gaseous ingredient used to manufacture plastic of the polyvinylchloride (PVC) variety. It comes in many familiar forms such as blister pac (a plastic material commonly used for packaging food products).

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The not-so-good news for '78-79:

# 7.6%

By Derek Mann

## It may improve marginally, but another belt-tightening year is ahead

Dalhousie will get an increase of 7.6 per cent in its operating grant for 1978-79.

This was the news relayed to the president, Dr. Henry D. Hicks, in a letter from the Maritime Provinces Higher Education Commission. (See Page 8).

Although the 7.6 is the lowest percentage increase to major universities in Nova Scotia — for the third year in a row (See accompanying report) — the situation may not be as bleak as it was for Dalhousie last year, the year of the "Seven Per Cent Disaster."

## Reaction mixed

Reaction to the announcement of the operating grant increases to Maritime universities was mixed.

The Maritime Provinces Higher Education Commission, which last fall recommended a 14 per cent increase, at the same time saying the region was "at the crossroads" (See Page 8) as far as higher education was concerned, thought that, in view of the changed economic situation, the 7 to 8 per cent increases for 1978-79 were "appropriate."

The university presidents took a moderate line. They were not happy, but seemed resigned to another belt-tightening year.

On the other hand, Dalhousie Faculty Association, Dalhousie Student Union, and Dalhousie Staff Association all criticized the MPHEC or the Council of Maritime Premiers.

Reaction reports—Page 9.

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The good news:

## It's not all that bleak

## At the bottom — again

For the third year in succession, Dalhousie finds itself at the bottom of the league so far as operating grant increases are concerned.

Saint Mary's, St. Francis Xavier, Acadia, Mount Saint Vincent and even King's have all received more substantial percentage increases in their operating grants than Dalhousie has in each of the past two years and now, in those announced for 1978-79.

A few specialized institutions (e.g. Nova Scotia Technical College) have been given percentage increases as low as Dalhousie for 1978-79, but Dalhousie remains at the bottom of the major league.

What does this mean? Says Vice-President W. Andrew MacKay:

"For all of those that have received bigger percentage increases than Dalhousie, the grants represent a larger portion of the total revenues of those institutions, so that the funds available for financing programs and salary increments have been increasing more rapidly in comparative terms than Dalhousie's."

The basis for this, says the vice-president, is the MPHEC's formula for weighting programs. In the distribution of operating grants, the MPHEC's policy is to equalize support on the basis of weighted full-time equivalent students.

On the basis of this formula, the average of operating grants for each weighted student unit appears higher at Dalhousie than at other institutions.

"We believe, however, that the MPHEC's formula under-represents the relative costs of teaching medicine and dentistry, and of doctoral studies. We are now studying this formula."

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## Master's program in environmental studies to begin in September

Dalhousie will offer a new graduate degree program—in environmental studies, beginning in September.

The course of study will be of interest to students in the social and natural sciences, engineering, health sciences, law and education.

It is designed to provide professional education in environmental planning, administration and the resource management fields.

Candidates will take a core program consisting of an introduction to environmental technology, resource economics, resource and human ecology, systems approaches to environmental planning, and the conceptual

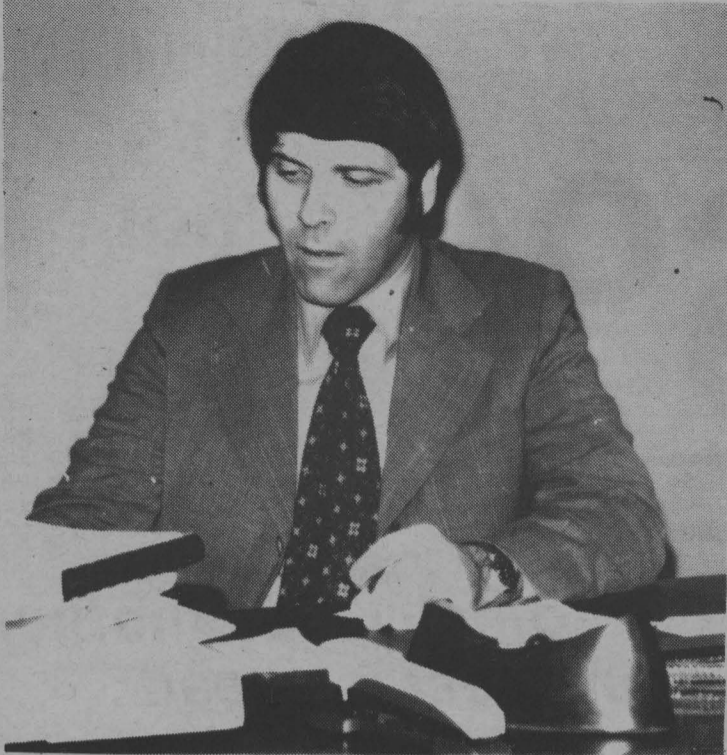
framework for inter-disciplinary research and decision-making. Students will take their elective courses in their own area of specialization.

### Institute of Environmental Studies director appointed - Page 2

The program is co-ordinated by the university's Institute of Environmental Studies. Selected courses offered in other university departments and the Nova Scotia Technical College will be included in the program.

The Institute, which maintains working contact with the provincial and federal research and management agencies located in Nova Scotia, anticipates there will be job opportunities for MES students in their programs. Research themes which may lead to a better understanding of environment and development issues in Third World countries will be supported if small working groups of Canadian and foreign students can be assembled.

For further information and applications, write to Dr. Arthur J. Hanson, Director, Institute of Environmental Studies at Dalhousie.



Dr. Hanson

## Environment, resource specialist heads Dal's institute

Dr. Arthur Hanson, project specialist in resources and the environment for the Ford Foundation in Indonesia, has been appointed Director of the Institute of Environmental Studies at Dalhousie University.

Dr. Hanson, a native of New Westminster, B.C., is a graduate of the School of Natural Resources at the University of Michigan. He was the recipient of many undergraduate awards and graduate fellowships during his time at university.

He has broad teaching and research experience in the field of natural resources and fishery ecology. His current research interest is in coastal zone management.

Dr. Hanson's resource and environment activities are extensive. He was co-founder of the Ann Arbor Ecology Centre, a member of the planning committees dealing with the structure and organization of the Michigan School of Natural Resources, a member

of the steering committee which developed a series of workshops on coastal zone management in Indonesia, where he was based from 1972 until recently. He has also participated in many international environmental meetings.

During his stay in Indonesia he acted as advisor to the administration at Bogor Agricultural University. There he helped to establish a graduate program, and a research and training centre for natural resource management and environmental studies.

He also acted in an advisory capacity on matters of resource-oriented studies and programs at other Indonesian universities and government research and development institutes.

Dr. Hanson has been named to a United Nations University task force which will meet in the Philippines early this summer to assess system analysis approaches in resource management and its usefulness as a planning tool.

## Of reading, writing and reasoning; literacy survey begins

Literacy is generally understood to refer to the ability to read, to write, and to reason competently.

What is considered an appropriate standard of literacy for university graduates has yet to be determined.

At Dalhousie, the Faculty of Arts and Science has established an ad hoc committee on English language proficiency as a first step in this direction.

Early this month faculty in Arts and Science received four samples of student writing from written works submitted in Biology 2060A, a second-year course in ecology. In addition to reading the samples, faculty have been asked to complete four survey-type questions. All responses must be mailed no later than Feb. 21 to Professor Victor Thiessen, Department of Sociology.

The results of the questionnaire will be published. The findings will assist the committee in identifying problems and ultimately in making recommendations.

The committee is made up of Professors Tom Sinclair-Faulkner (religion), Stanley Cowan and Patricia Monk (English), David Lewis (engineering), Victor Thiessen (Sociology), Judith Newman and Stuart Semple (Education).

## St. FX approves writing test

St. Francis Xavier Senate has approved the establishment of a written expression competency test for those who apply for admission to the teacher education program. The test will be administered to the applicants entering the university's Bachelor of Education program in September.

The test is being introduced to improve the selection of candidates

entering teaching, and places more emphasis on communication skills in the teaching profession.

The test, which will be a written essay in English or French, will be administered by the Education Department but evaluated by an outside examiner. Essays will be judged for their logic, organization and structure.

## Food additives threat

continued from page 1

**This has been indiscriminately used for years without testing. Kamra says that about 10 per cent of the gas gets trapped in the polymer during manufacture and seeps into the food itself afterwards.**

These are only two illustrations from a long list of chemicals that have been added to the environment without adequate knowledge of their effects, says Dr. Kamra.

These effects can show up in the form of damage to body cells (producing short- or long-term effects) or in the genetic material which can be passed on from one generation to the next.

There are now a number of testing procedures which substantiate the fact that carcinogenic and mutagenic effects do occur from at least some environmental contaminants.

**The adverse environmental impact on genetic material in man is definitely increasing, but the full effects may not be evident for several generations.**

Dr. Kamra is endeavouring to create an awareness of the dangers by raising with his students such questions as:

\*What is the significance of genetic effects to you as an individual, to the population in general and to the future generations?

\*When, if ever, do the beneficial effects of an environmental contaminant outweigh its harmful effects?

\*Should an environmental contaminant be considered innocent until proven guilty or the other way around? What is the current state of affairs in Canada with respect to this question?

## First recipient of Kerr bursary



A Master of Divinity student, **Pamela Dickey Young** (above) is the first recipient of the Dr. Alexander E. Kerr Bursary, which provides assistance to candidates for the ministry of the United Church of Canada who intend to continue their studies after graduation from the Atlantic School of Theology.

The bursary was originally established by former Dalhousie president, the late Dr. Alexander Kerr, as the "Roderick and Mary Kerr Bursary," but upon the death of Dr. Kerr, his widow, who sat on the selection committee, approved of the change of name.

A native of Middle Stewiacke, Ms. Young is completing her thesis on a comparison of the revelation theologies of Karl Barth and Martin Buber, and has applied to graduate schools in Canada and the United States for doctoral studies. She will be ordained in May.

## Stodola recital off

The piano recital by Lynn Stodola, which was to have been given tonight, has been postponed until further notice. The Stodola Djokic Duo recital on March 5 is not affected.

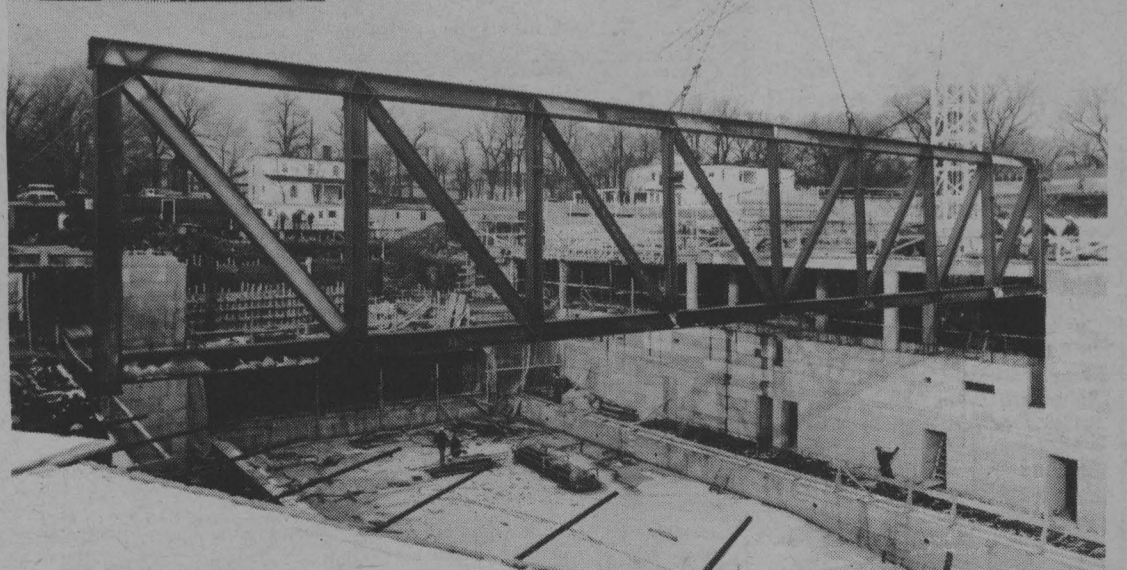
## Pooley to lead graduate course in the Alps

Dr. John Pooley of the School of Physical Education will lead a graduate class on a study trip in Canada, Switzerland and Sweden in July.

The three-week course, organized by the Institute of Comparative Physical Education of Concordia University in Montreal, compares systems of physical education in different cultural settings and promotes understanding of the discipline on a world-wide scale. The class studies historical, philosophical and sociological perspectives of physical education, method and content of curricula for male and female students, the design of sports facilities, and current research.

In Switzerland classes will be given at the Federal College of Physical Education and Sports high in the Alps and students will be able to participate in a progressive approach to fitness on the world famous Vita Parcours Trails. Similarly, the Swedish Federal College of Sports, Boson, provides an ideal setting for fitness activities and study.

The course Physical Education 500, has been organized on a low cost, educational basis with tuition, six graduate credits, all meals, accommodation, air and land transportation, sightseeing and cultural events, included in the \$1375 package. A similar course, Phys Ed 510, will take students to Germany, Sweden, Denmark and the Alps, also in July.



In the continuing saga of DALPLEX, a construction foreman takes up a precarious post to oversee placement of the support trestles. (Bruce Moxley photo)

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Following is the balance of the publishing schedule for 1977-78:

Volume 8 1977-78	DEADLINE (5 p.m. - Tuesdays)	DATE OF ISSUE (Fridays)
11.	Feb. 21	March 3
12.	March 7	March 17
13.	March 21	March 31
14.	April 4	April 14
15.	April 25	May 5

## The 1978 Dorothy J. Killam Memorial Lectures

# 1984 and BEYOND

March 3

**I. Bernard Cohen**  
(advocate of a humane  
-approach to science)

*The Future of Science or  
Science in the Future: A  
Historian's Perspective*

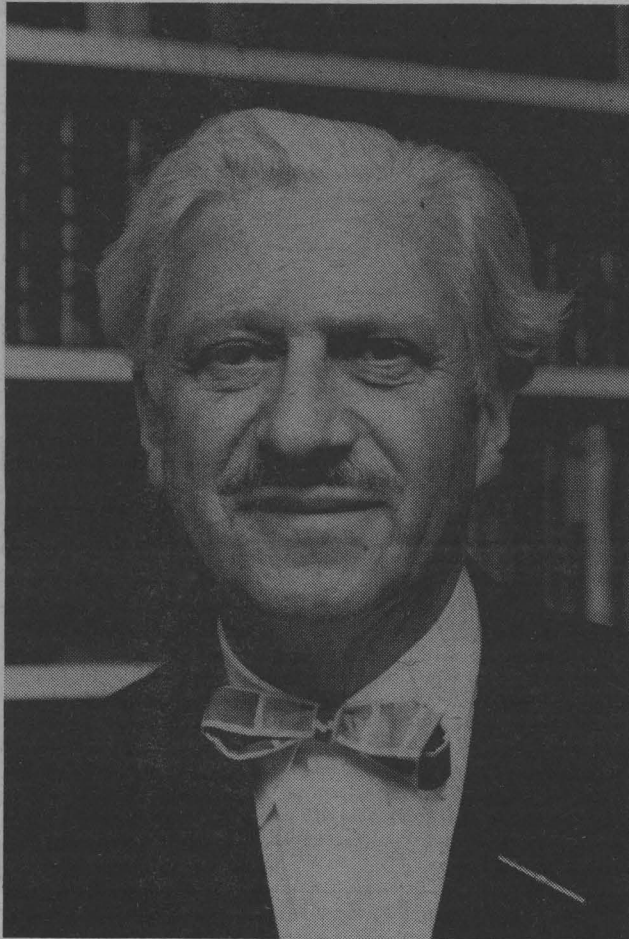
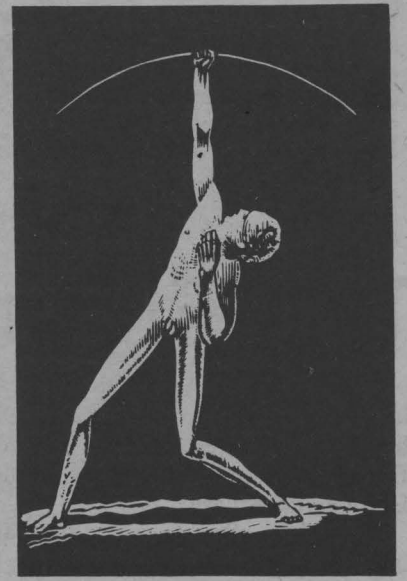
March 10

**Daniel Bell**  
(social forecaster)

*The Future World Disorder:  
Some Problems for the  
Next Decade*

March 17

**Robert Heilbroner**  
(economic analyst)  
*The Future of Capitalism*



**COHEN:**

An agenda for the future as outlined by a leading scholar will usher in the 1978 Dalhousie University Killam Memorial Lecture Series.

The opening talk, to begin at 8 p.m. on Friday, March 3 in the Weldon Law Building, will see Harvard physicist-historian, **Dr. I. Bernard Cohen** occupy centre stage.

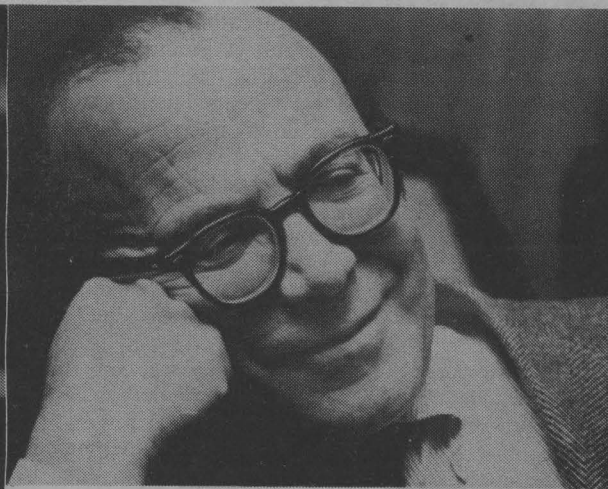
Professor Cohen, taking his cue from the series theme, **1984 and Beyond**, will be drawing on his knowledge of history and the present state of science, and speculating on the following: The future of science or science in the future.

Cohen, attached to Harvard's Department of History of Science, is a reputable author and a distinguished philosopher whose years as a researcher are studded with honours, awards and special appointments.

He has devoted a lifetime to the evaluation of scientific thought and history especially through the genius of Isaac Newton and Benjamin Franklin. Throughout his career he has made a special plea for science to be viewed through its history and cultural contacts, emphasizing that science can and is rooted in human values.

This theme is particularly evident in research now in progress which deals with how developments in the natural and physical sciences can serve as a model and source of ideas for the social and behavioural sciences.

The series continues on March 10 and March 17 with talks by social critic and futurist Daniel Bell and economic analyst Robert Heilbroner respectively.



**HEILBRONER:**

If George Orwell's classic novel, **1984**, painted a horrific picture of the future and caused its readers to be apprehensive about what was in store for society in the years ahead, then the posture taken in the lecture on March 17 by economic analyst **Robert Heilbroner** will come as no surprise—it will be equally grave.

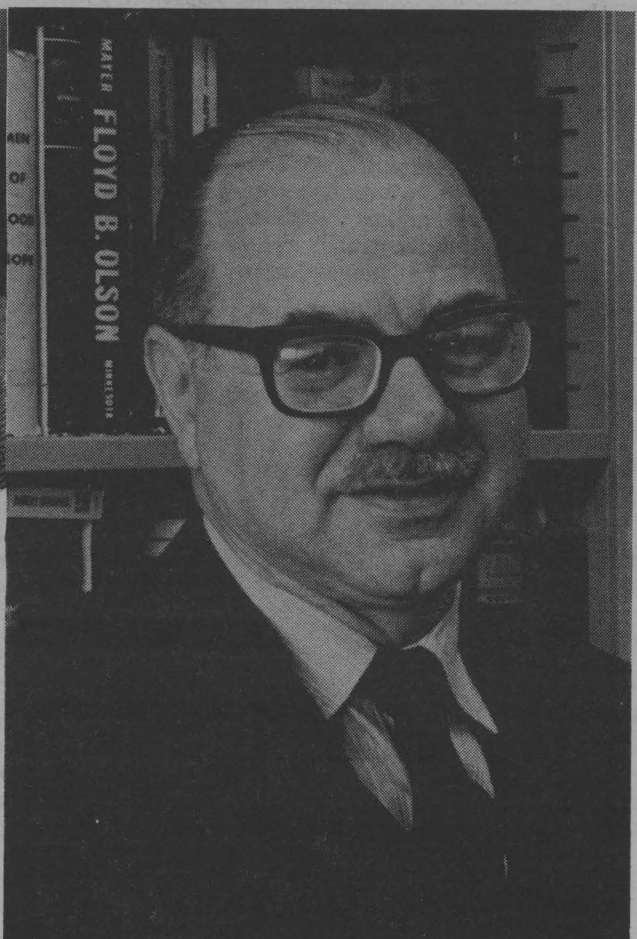
In his talk on **The Future of Capitalism**, to begin at 8 p.m. in the Weldon Law Building, Dr. Heilbroner will make some dismal predictions about the future of mankind. His lecture is the third presentation in this season's Killam Memorial Series and is devoted to the general theme of **1984 and Beyond**.

Dr. Heilbroner is concerned about the wide gap that exists between wealth and power on the one hand and poverty and shortages on the other. He is not only pessimistic about the resource question but takes a dim view of where the economy is taking us.

Heilbroner is on staff of the Graduate Faculty of the New School for Social Research in New York. Following military service in World War II he worked as an economist for private business in the field of foreign trade and then began his career as an economic essayist with articles for **Harper's** and other magazines. His works are regarded as standard reference texts by students of political economy and have earned him the praise of many reviewers, including C.P. Snow and J. Kenneth Galbraith.

Among his recent publications which have attracted the attention of the public are **An Inquiry Into the Human Prospect** and **Business Civilization in Decline**.

—**Roselle Green**



**BELL:**

**Daniel Bell**, acclaimed as one of the leading sociologists and social critics of our time, will be the second of three speakers invited to deliver a Killam Memorial Lecture during its 1978 series.

Dr. Bell is an influential scholar who has demonstrated his concern for the future of society and the individual by speaking out on such contemporary themes as the reform of general education, work and its discontents, the coming of the post-industrial society.

In his lecture, to begin at 8 p.m. on March 10 in the Weldon Law Building, he will address himself to the following question: **The Future World Disorder: Some Problems for the Next Decade**. The title is in keeping with the overall focus of the lecture series—**1984 and Beyond**.

Beginning as a writer and editor of such well known magazines as the **New Leader** and **Common Sense**, he turned his attention to the teaching of sociology, first at Cambridge and now at Harvard. He is the co-founder of a prestigious quarterly entitled **The Public Interest**, which publishes informed views and comments by respected thinkers on the frontiers of knowledge.

He headed a U.S. presidential commission on the **Year 2000** and has directed much of his current research to an examination of the effects of technology on society—an interest that stems from his work in the public service in the 1960s. Out of this has come a number of studies on new networks of knowledge and information technology as it relates to capitalism, and economic progress.

The concluding lecture in the Killam series will be given by economic analyst Robert Heilbroner on March 17.

**"The study of landscape design must now bridge the chasm between art and science. It is becoming ever more necessary for science and art to come to terms — their isolation and separate development is a danger to society. In spite of the continuing trend towards specialization, leaders in both fields are aware of the need for wider understanding, and perhaps they can come together most easily through the mutual appreciation of landscape."**

— from *The Experience of Landscape*, Jay Appleton.

By Timothy Brownlow

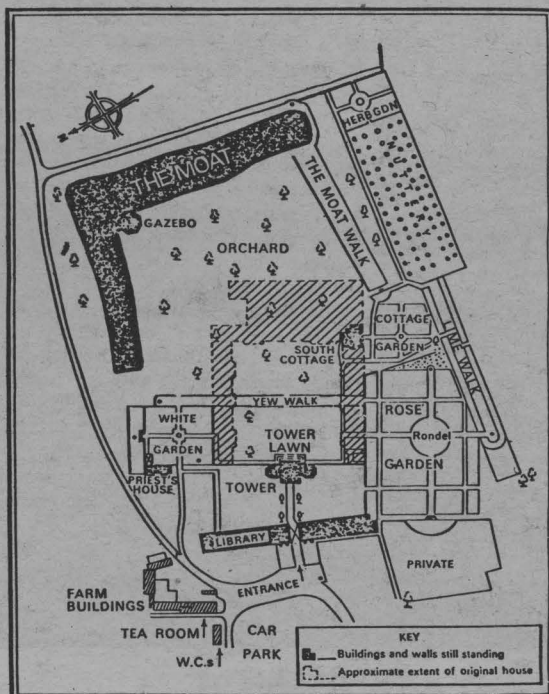
# The Figure in the Landscape

The English concern with landscape, especially the landscape garden, has been called by cultural historians the most original English contribution to European culture. It had an immense influence in Europe and America.

This love-affair with landscape involved an increasingly rigorous training of the eye (indeed all the senses) and it had its honeymoon period between 1750 and 1830, the period of Romanticism in the arts.

Landscape became a focus for deepest concerns of the period, whether in architecture, poetry, painting, gardening or travel. Since the modern mind has evolved out of the ferment of the Romantic period, it is important that the issues of that time should be understood.

Modern man has become alienated from landscape (or the environment), but now faces the crucial challenges of ecology and is forced to come to terms with landscape in all its manifestations (especially the urban environment). The practitioners of the eighteenth-century landscape arts, the poet-gardeners no less than the theoreticians, have much to teach us in our search for an environment which unites satisfaction with the minimum of waste.



The garden at Sissinghurst, Kent, created by Victoria Sackville-West (another poet) and Harold Nicolson between 1930 and 1962. This garden blends French formality with English picturesqueness, and traditional emblems with a skilful use of the vastly enlarged store of modern horticultural knowledge. This blend has created a masterpiece of modern design.

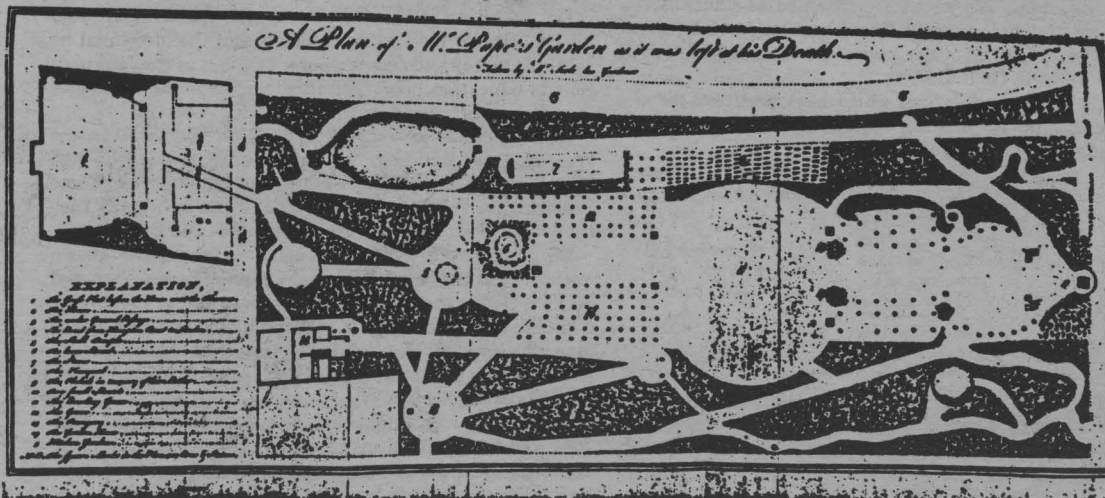


PLATE I POPE'S GARDEN AT TWICKENHAM

The most important features of the layout are the underground passage (3), the shell temple (5), the large mount (6), the obelisk to the memory of the poet's mother (9), two small mounts (10), the bowling green (11) and grove (12).

A plan of Pope's garden at Twickenham [1719-1744]. Only the grotto remains. What can be called Pope's psychological involvement with landscape is evident from his statement: "I am as busy in three inches of Gardening, as any man can be in threescore acres. I fancy myself like the fellow that spent his life in cutting the twelve apostles in one cherry-stone."

What can they teach us?

1. Visual sensitivity or what might be called spatial awareness. This involves seeing a space, no matter what size, so that its full potential may be realized.
2. A respect for what the classical writers called the *genius loci*, or spirit of the place. "Consult the Genius of the Place in all" wrote the poet Alexander Pope (1688-1744), a precept which he obeyed in the planning of his own garden (See Plate 1). The Genius of the Place, in modern planning terms, is the character of the site, the geographical, historical, social and aesthetic character.
3. A respect for local associations. Much of the concern of modern conservationists falls into this category. When the great architect Vanbrugh (who was also a dramatist) was planning Blenheim for the Duke of Marlborough, he recommended the retention of a "picturesque" medieval building just below the palace. His advice was not taken, and much more was lost than just a pretty picture—social, historical and local associations went too.
4. The principle of individual liberty. This may seem a large claim, but the principle of "Consult the Genius of the Place in all" can be translated "Treat each case on its own merits" and that is the principle of tolerance in action. It is the spirit opposed to an exclusive reliance on the drawing-board, on the grandiose and the abstract. After all, Jefferson and Rousseau were devotees of the English Garden.

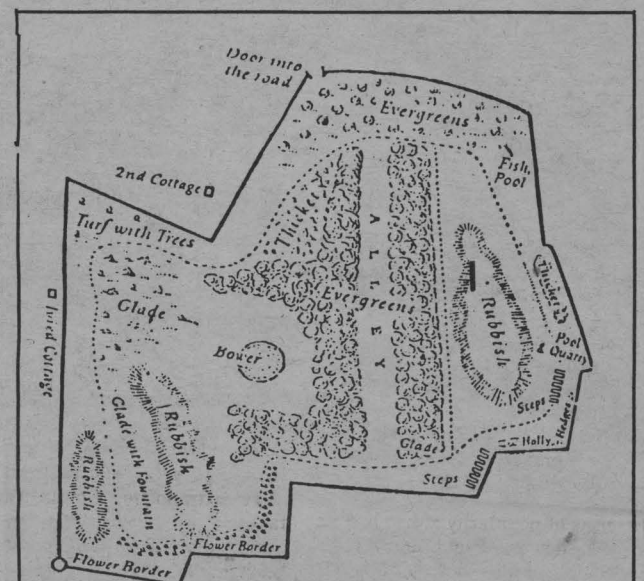
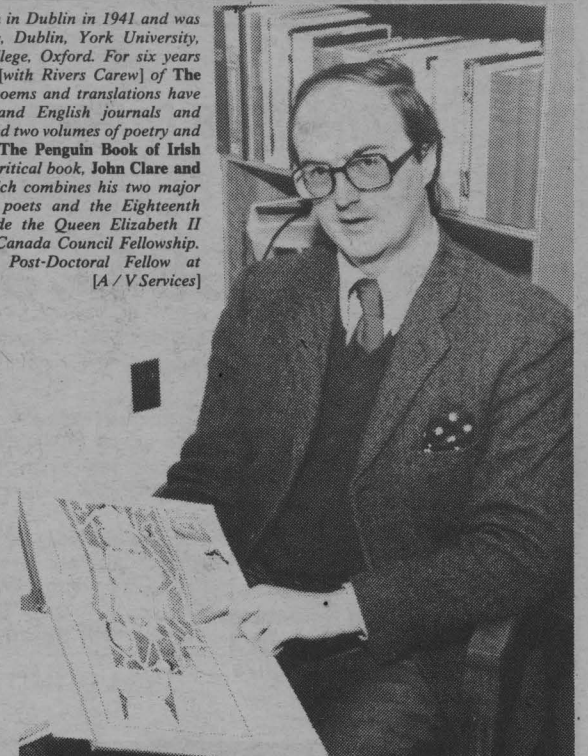
The eighteenth century produced satisfying environments partly because its planners had been visually trained by great painters. It was, of course, an autocratic age, but the Romantic challenge to autocracy also found its metaphors in the landscape. Nash in architecture, Wordsworth and Coleridge in poetry, Constable and Turner in painting, could not have reached greatness without the groundwork laid by the eighteenth-century gardeners, poets and travellers.

Once the eye had been educated, the great Romantic figures could be as metaphysical as they pleased, but could never leave the physical behind—Wordsworth's most moving metaphor for the Imagination is the mist rolling over the hills.

What is the importance of all this to our modern problems? I would put it like this: there are dangerous tendencies in modern culture towards abstraction and the pseudo-scientific. In language, this produces jargon; in architecture, monolithic designs like the city of Brasilia which nobody wants to live in, or buildings like the World Trade Centre, where secretaries have to ring down at lunch-time to ask what the weather is like "on earth".

A building is functional when the designer takes account of human needs, when it satisfies not just physically but emotionally. This may involve more thought, but not necessarily more expense (often far less expense). The lesson of the eighteenth-century landscapers is that we can make the

Timothy Brownlow was born in Dublin in 1941 and was educated at Trinity College, Dublin, York University, Toronto and Pembroke College, Oxford. For six years (1963-1969), he was Editor [with Rivers Carew] of *The Dublin Magazine* and his poems and translations have appeared in many Irish and English journals and newspapers. He has published two volumes of poetry and his work is represented in *The Penguin Book of Irish Verse*. He has completed a critical book, *John Clare and Picturesque Landscape*, which combines his two major interests in the Romantic poets and the Eighteenth Century. His awards include the Queen Elizabeth II Ontario Scholarship and a Canada Council Fellowship. He is a former Killam Post-Doctoral Fellow at Dalhousie. [A / V Services]



THE WINTER GARDEN AS WORDSWORTH PLANNED IT  
from *Letters of the Wordsworth Family*, ed. William Knight (London, 1907) I, 285

The Winter Garden which Wordsworth designed and helped to create [1806-7] for Sir George Beaumont in Leicestershire. The site was formerly a quarry. As in Pope's garden, there is a concern for the optimum use of space in a confined area. Wordsworth's garden, which still exists, is more "natural" and "picturesque" than Pope's, less reliant on busts, mottoes and emblematic devices.

most of any space if we are visually alert. We can apply their principles of spatial awareness to our own backyards. The study of such eighteenth-century figures as William Kent, Uvedale Price, Richard Payne Knight and Humphry Repton is obligatory at the Guelph University Department of Landscape Architecture.

What, it may still be asked, is the relevance of this study to someone whose main professional concern is the teaching of poetry? I would answer that poetry is recycled language, it is linguistic economy, not consumption of verbal resources, and so it is an image of our deepest concerns. As the poet-gardeners have taught us, the inner world of metaphor and the outer world of facts have much to teach each other. The figures in the landscape may turn out to be human after all.

## Landscape expert may visit Dalhousie

The author of the quotation at the head of this article, Dr. Jay Appleton, is Reader of Geography in the University of Hull, Yorkshire. He is planning a visit to Canada in September.

His main academic interest is the visual aspects of the environment as encountered in the arts and sciences. His latest book, *The Experience of Landscape* (John Wiley, 1975) proposed a new approach to the appraisal of landscape based on the behavioural sciences.

Dr. Appleton, a Fellow of the Royal Geographical Society, has lectured frequently on such topics as "What makes places beautiful?", "Landscape in the arts and sciences", "Transport and terrain", and "The evolution of railway networks".

Anyone with a professional interest in sponsoring a visit by Dr. Appleton and arranging lectures, seminars or informal discussions within their own faculty (a fee is preferable but not essential) should get in touch with Dr. Brownlow at 424-7004 or 434-6108 within the next two or three weeks.

# Science fiction reaches a peak - it's popular and respectable

As literature, science fiction is an important feature of contemporary culture.

As history, it reveals changing attitudes towards time and space.

As a method, it employs physics, astronomy, mathematics, biology, psychology and pseudoscience.

As a form, it appears as myth, fantasy, adventure, utopia or dystopia—as a forerunner of things to come.

As a theme, it reveals man's longings and his fears through imaginary worlds and imaginary beings.

All said and done, sf is an intriguing intellectual pursuit; it's also reached space-like heights of popularity and respectability.

For Professor Stan Cowan, his being involved with sf stems not from the "way out" treatment given a particular theme but rather from the expression of quality within the form of writing.

His interest, shared by other students of English literature, has grown to the point where sf is now regarded as a creditable academic course at universities.

Cowan leads a course at Dalhousie in which he has selected works that combine elements of scientific, social and literary history with superior artistic style. He begins the course with a brief overview of the adventure-type pulp variety of fiction and then moves on to the more sophisticated works.

In terms of popularity sf has had its ups and downs. Right now it is experiencing a peak—much of it is due to the movies and television. But Prof. Cowan says there are two other factors to be taken into account: a host of exciting, highly competent writers have come on the scene; sf seems to fit the temper of our times.

The works of the following authors are representative of both factors. Robert Heinlein's *Stranger in a Strange Land* appealed to the youth cult of the late '60's. His hero, Valentine Smith, is an earthman trained on Mars, who comes to earth and performs miracles of extrasensory perception, telepathy and psychokinesis. *The Space Merchants*, by Frederik Pohl and Cyril Kornbluth, is a satire based on the conflict between wealthy sellers and poor consumers. Although this novel was first published in the early 50s, readers still respond to the story of conservationists resisting exploitation, waste and pollution.

More recent than either Heinlein or Pohl, sf writers Ursula Le Guin and Joanna Russ explore the themes of identity, female consciousness, and sexual stereotyping in their novels *The Left Hand of Darkness* and *The Female Man*. These are subjects of contemporary interest.

Cowan also draws attention to other sf characteristics. There's the man-technology concept, depicted so ably in H.G. Wells' *The Time Machine*. Wells takes the notion of time travel and puts it on a mechanical basis, with a machine that moves through time under the control of an operator. Wells used the machine, says Cowan, as a plot device to examine social problems of his own time. He showed the possible consequences if the growing division between labourers and aristocrats continued unchecked. "This kind of work opens up the future to imaginative speculation."

## By Roselle Green

There's also the forerunner-prediction component in sf. Jules Verne, in *From the Earth to the Moon* (1865), predicts the firing of a ballistics spaceship from an underground hole in Florida. Although his launching method is not scientific in some important details, his choice of launch site anticipated the actual choice of Cape Kennedy a century later.

Closely interwoven with all of these facets of sf is the technique of extrapolation, upon which many, though not all, sf stories depend.

To extrapolate, Cowan says, you take an established fact, project it beyond the present state of knowledge, thus creating a situation that has not yet been faced by mankind. Extrapolation from known biological fact was the basis for Michael Crichton's *The Andromeda Strain*, in which a deadly virus is brought back to earth by a returning space probe. Disaster is averted when the virus undergoes a natural mutation.

Finally there's the reader's and author's fascination with the idea of discovery. In the earliest technological utopia, *The New Atlantis* (1627), Francis Bacon talked about hearing aids, telecommunications and robots. Edward Everett Hale's *The Brick Moon* (1869) described a man-made satellite launched as an aid to navigation.

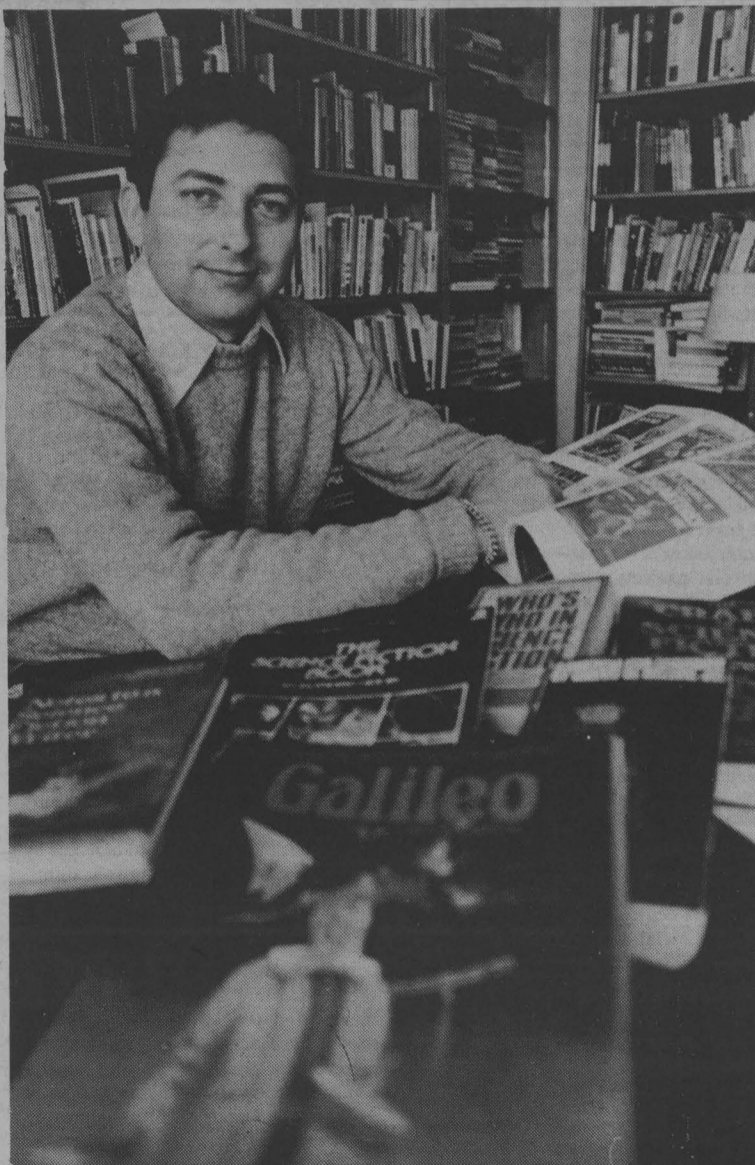
Sf has a very special appeal—it seems both prophetic and real, probably because we live in a world of laser beams, computers, photons and electrons, genetic manipulation, moon and Mars landings. Acceptance of events that are just beyond the horizon seems possible.

If, says Cowan, you take all of these ingredients together, it's bound to be mind-expanding and that's part of what all good literature is about. C.S. Lewis, for example, in his *Perelandra* trilogy, uses space fantasy as a vehicle "to dramatize the conflict between amoral scientific ambition and humanistic spiritual values." According to Cowan, the thing to keep in mind, whether it's good adventure or fantasy, is that sf should be measured for its quality, the same as any other piece of literature.

A good illustration of high quality sf is the Czechoslovakian writer Karel Capek's *War With the Newts* (1936). Capek, who also gave the world the term *robot*, gives a comprehensive picture of human folly that is both comic and tragic, in the tradition of satirists such as Jonathan Swift. Capek's style is witty and innovative.



Samples in print that serve as teaching tools for Professor Cowan's course in science fiction. (A/V Services)



Professor Cowan displays a series of illustrated covers representative of the science fiction pulp magazine variety. (A/V Services)

It's safe to say that in sf there's something to suit everyone's taste:

- \*Romance of hardware, Jules Verne
- \*Social satire, Karel Capek
- \*Future biological change, H.G. Wells
- \*Technological behaviourism, Aldous Huxley
- \*Future history and creation of benevolent robots, Isaac Asimov
- \*Dystopia, Yevgeny Zamyatin

If your interests are in cinema, look to the film societies for such classics as *Metropolis*, *The Shape of Things to Come*, and *2001: Space Odyssey*. On television, only the *Star Trek* re-runs are worth watching at this time.

Ten recommended novels from the Cowan bookshelf:

1. H.G. Wells, *The Island of Dr. Moreau*.
2. Yevgeny Zamyatin, *We*.
3. Karel Capek, *War With the Newts*.
4. C.S. Lewis, *Out of the Silent Planet*.
5. George Orwell, *1984*.
6. Walter M. Miller, Jr., *A Canticle for Leibowitz*.
7. Michael Crichton, *The Andromeda Strain*.
8. Arthur Clarke, *Childhood's End*.
9. Kurt Vonnegut, Jr., *The Sirens of Titan*.
10. Frederik Pohl, *The Space Merchants*.

## Burbidge addition progresses

The George A. Burbidge building has a new hat. While much attention has been drawn to the construction of the Physical Education, Recreation and Athletic Centre, work has continued quietly on adding a floor to the Burbidge pharmacy building at the Carleton end of campus. The new floor will provide temporary office and lab space for Dentistry and Dental Hygiene when construction begins on the new Dental facility in the spring.

Jim Sykes, the university planner, reports that nearly all the windows are in place and the roof is tight. The exterior covering for the walls will arrive next week, he added. On completion in April, the interior of the new floor will be supplied with temporary partitions to create offices until the permanent residents, Nursing, take it over in 1981.

Sykes expects that the construction of the Dental facility, affectionately dubbed the "Tooth Plex", will begin in early spring when the frost has gone.

## Workshop for old people's workers

Camp Hill Hospital will be the venue of a two-day workshop designed for people working with the elderly in Nova Scotia.

The program is limited to 60 registrants and will be presented by staff of the Institute of Gerontology at the University of Michigan, which pioneered much of the current understanding of the needs of the increasing elderly segment of the population.

The workshop, on April 6 and 7, will deal with the principles of milieu practice, working with the aged in treatment settings.

Registration priority will be given to people working for homes which give special care, nursing homes and other specialized institutions, and the deadline for registration is March 15.

Sessions are sponsored by the Gerontology Association of Nova Scotia, 5970 University Avenue, which was founded last summer, with Dr. Martha K. Laurence as first president.

The workshop follows on the heels of a geriatric refresher course held for doctors during winter, and which attracted double the expected number of registrants.



Dr. Edwards (above) recently received an award of merit from the Western Institute for the Deaf in British Columbia in grateful acknowledgement of the service rendered on behalf of the institute.

[A/V Services]

## And Edwards' zeal? She considers it part of her job

By Roselle Green

The School of Human Communication Disorders is playing a leadership role through the efforts of audiologist Dr. Joyce Edwards.

She's become a force behind the establishment of the Co-ordinating Council on Deafness of Nova Scotia; and she considers her being involved as part of her professorship.

The purpose of the council is to act as a pressure group in securing services for deaf pre-schoolers and adults who are in unskilled occupations below their potential. There are 12 member organizations (among them the Atlantic Provinces Resource Centre, the Hearing Handicapped Parents' Association, the Halifax Association for the Deaf, the Ecumenical Ministry of the Deaf).

Dr. Edwards' role is modelled after her experiences in British Columbia which reaped the benefits of her zeal before she joined Dalhousie. There she worked vigorously to create a council, one that has since secured a central facility and a fully operational service for the deaf.

Her enthusiasm is derived from her sensitivity towards the multi-dimensional problems of the deaf—problems that go unnoticed by the population as a whole.

Two illustrations bring the point home. How do you make out an income tax return when you can't communicate and ask questions? When you are

sick, how do you describe your symptoms to the doctor?

These are fundamental problems encountered by those with hearing difficulties and yet in the Atlantic region there is no all-encompassing program of services beyond the diagnostic level to meet these needs.

Dr. Edwards' concern is reflected in a seminar course on the impact of deafness which she leads at the school. One of its objectives is to create a consciousness among her students that there is a need for a rehabilitation program and that they will be participating in such a program when they go out into the field.

By structuring program models in the school—these include lip-reading classes for adults and children and an interpreter's course—and assigning special projects during the year, the students have a chance to observe how such services operate. In this way they can develop an appreciation for the needs of the deaf.

By serving as home base for these services for the time being, in addition to developing program models, the school is actually acting as a facilitator for the council, which hopes to initiate a number of programs in a centralized location. These would include interpretive courses and services, counseling, sports and recreation, library and resource centre, lip-reading classes, as well as social events.

## Informal poll of 300 shows DFA members favour unionization

More than half of about 300 members of faculty who were polled recently about their views on unionization were in favour of seeking certification under the Nova Scotia Labour Relations Act.

This was reported last week by Dr. Ian Maclean, secretary of Dalhousie Faculty Association, following the poll, which was carried out informally after the Jan. 25 meeting of DFA's Council of Representatives. Thirty-five departments, schools or institutes were represented at the meeting, at which the executive committee outlined the present state of negotiations with the administration on a collective agreement (University News, Feb. 3).

Two-thirds of those polled abstained, saying they wanted further informa-

tion. DFA has about 600 members.

A general meeting of DFA was scheduled for last night (the 16th). On the agenda were reports of the fringe benefits committee, the by-laws committee, announcements of the formation of promotions and grievance committees, word on salary prospects for 1978-79, and information about the effects of "retrenchment".

Most important item on the agenda was a motion proposed by the executive committee: "The general meeting of Feb. 16 directs the executive committee to proceed to seek certification of the faculty of Dalhousie University under the Trade Union Act of Nova Scotia."

Dr. Maclean reported that faculties in 20 Canadian universities are organized in certified bargaining units.

## Dal's School of Human Communication Disorders aims to bring ...

# Aid to the deaf



Elizabeth Doull, who is deaf, and has a degree in sociology and social work, conducted a survey of deaf adults in Nova Scotia and outlined ways of improving services for the hard of hearing. She tells Michelle Herx (seated), with the interpreter's service for the deaf in metro, about her survey. The discussion takes place before students in the introductory course in aural rehabilitation. (Green photo)

## Theatre's magic: Haughty Snow Queen gains a certain charm

By Judith Campbell

The haughty Snow Queen, who terrorized Kai, Gerda and hundreds of children who attended Neptune Theatre's Christmas production, has lost her power but gained a certain charm as she dominates the Special Collections section of the Killam Library. She is part of the theatre exhibit on display there until March 17. She displays slightly forlorn, exposed to viewers as a simple puppet worked from beneath by stage hands manipulating three aluminum poles. Bereft of her special lighting and unable to reach her full stage height of 12 feet, one wonders why she seemed so frightening.

But then that is part of the magic of theatre and perhaps the Snow Queen should have been allowed to keep her secrets. For those of us who always want to know how much magic is worked, however, it is worth a few extra steps to visit the exhibit and examine the costumes, sketches, masks and other props from Neptune's recent productions, *Arms and the Man* and *The Snow Queen*. The costumes, and the sketches from which they were produced, attest to the ingenuity and creativity of Dalhousie's Professor Robert Doyle.

A debt is owed to various members of the university community who had the foresight in 1970 to work out a formal arrangement between Neptune and Dalhousie for the deposit of samples from all Neptune productions in the university archives. In addition to costumes and sketches, the archives hold "prompt" copies of scripts, plans for scenery and photographs of each production. Thus the Snow Queen, Grannie, and the Robber Girl, along with Raina Petkoff and her "Chocolate Cream Soldier" will join the 40-plus Neptune characters represented at Dalhousie.

Dr. Charles Armour, the archivist, tries to assemble an exhibit of an assortment of Neptune memorabilia yearly.



Flanked by the Robber Chief, the Snow Queen and Catherine Petkoff from recent productions by Neptune Theatre, costume designer Robert Doyle (right) and university archivist Charles Armour discuss the current exhibit in the Special Collections Section of the Killam Library. (Campbell Photo)

N.B. biology student enrolled without English; now he's heading for his Master's

## His target: Faster-growing oysters

By Kate Carmichael

Andre Mallet left his home in Shippegan on the north shore of New Brunswick in 1974 to study at Dalhousie. The next three years meant not only a university education for him, but the learning of a new language.

He spoke no English when he arrived. Now, with his BSc in biology with first-class honours behind him, he's working towards his Master of Science degree.

At home in New Brunswick, Andre's father, an insurance agent, was operating a small oyster farm as a hobby and a part-time business, so Andre has been close to the problems of oyster fishermen on the North Atlantic coast. Thus he decided to focus his master's thesis on some of their problems.

The American oyster, which is native to the Atlantic coast of Canada and the United States, grows to maturity in two years in the warmer waters of the south eastern seaboard, but along the New Brunswick coast maturity is not reached for five or six years.

The tripling of time needed by the oyster to reach maturity is caused by the winter conditions and the cold water along the coast, which cause a period of dormancy in oysters. The added time that has to be invested by

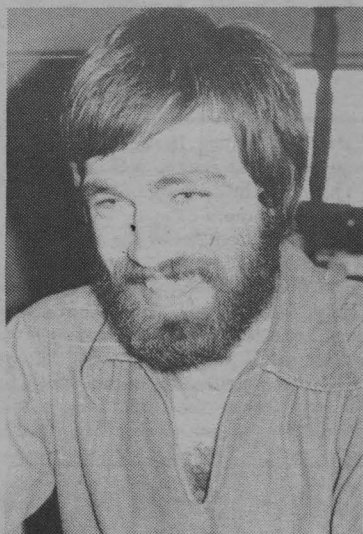
the fisherman in his stocks increases the risks of disease, predators or ice wiping out his investment. A reduction in the time needed for maturity would reduce the risk of losses to the fisherman and mean increasingly greater harvests each year.

Prairie farmers had a similar problem. The corn they grew on the prairies needed a longer and warmer growing season than the Canadian climate could offer. Using their knowledge of genetics, scientists developed a hybrid corn which is well suited to the shorter growing season.

With a grant from the government of New Brunswick, Andre is working on a similar theory for the oyster fisherman.

Collecting sample populations of oysters from six locations along the New Brunswick coast, from Shemogue to Miscou, Andre isolated the eggs and the sperm of each population in the facilities at the oyster hatchery on Prince Edward Island. With the sperm and eggs he was able to cross the populations of oysters in a controlled system and mark the offspring according to their parentage. As well as a population of hybrid oysters, Andre produced a control group, both parents coming from the same population.

In their natural environment, the larvae remain in the free swimming stage for three weeks, after which they attach themselves to "collectors" (until recent times these were strings of scallop shells but a new variety,



Andre Mallet

commercially made has been introduced in Canada). Once attached, the larvae are called "spats" and they remain attached to the collectors for up to a year.

This summer Andre will return to New Brunswick with his spat populations and give half to his father's operation in Shippegan and half to a co-operative venture in Buctouche. The spats will be broken from their collectors and placed in trays in their native environment where they will remain until they reach market size. Their growth will be followed monthly throughout the summer and it is hoped that differences between hybrid and parental lines will show up.

On the trays the young oysters will not develop the characteristic cupped shell which differentiates it from the European oyster.

Oyster grading for market is done according to its shape. The more cupped the lower shell—this facilitates the method of eating them by holding them in the cup of your hand—the more valuable it is to the fisherman. To encourage this cupped shape, the oysters must be removed from the mesh trays and placed on the muddy oyster beds to complete their growth. From the oyster beds they are harvested, graded and shipped to markets across Canada. For a top grade oyster, the fisherman will receive about 12 cents.

The steps from the spat stage to the harvesting now require five or six years. Andre hopes that the hybrid spats he has produced will reduce this time by one or two years but still retain the quality shell.

Predicting the outcome of his work at this stage is difficult, but he does suggest that the oysters from Buctouche may be the key to the success of his research.

For the fishermen, the fruits of Andre's research will be visible in their production rates. At the moment oyster fishing is a part-time industry (oyster harvesting cannot be done while the ice covers the beds, and in the summer the beds do not produce enough of a harvest to support a full-time industry). A faster growing oyster will increase the turnover rate for harvesting and will begin to help the fishermen to fill market demands in Canada.

To a province which is reeling under the destruction of trees by the spruce budworm and suffers from unemployment above the national average, the development of an industry with the potential of the oyster fishery would be welcome, especially because areas of high oyster production are found near communities of low income.

The surface of the market for fresh smoked, and canned oysters has barely been scratched; the product was never there in enough quantity.

Andre has learned English well and the problems of the oyster fisherman have captured his imagination. Still in his early twenties, he has taken on the problems of a promising industry in an attempt to help it to reach its potential.

## Dal chemists busy internationally

An important part of the continuing research activities in the Department of Chemistry at Dalhousie involves the direct interaction of Dalhousie chemists with other chemists around the world.

Recent visitors to the department have included Professor Georges Guiochon from Paris, where he is *Directeur du Laboratoire de Chimie Analytique Physique at the Ecole Polytechnique* as well as professor of chemistry at both the *Ecole Polytechnique* and the *Université de Paris*. Prof. Guiochon is a leading expert in chromatography, having published several books and over 200 manuscripts in this field. He was a recipient of the *M.S. Tswett Chromatography Medal* at the 1976 International Symposium on Chromatography in Houston, Texas.

Chromatography was first developed by Tswett, a Russian botanist, as a means of separating pigments found in plants. Several variations of Tswett's basic techniques have been developed and these are widely used in many different branches of chemistry both to separate and to purify chemical substances. Because of practical difficulties, separations by the technique of gas-liquid chromatography, a technique that has immense power of separating very complex mixtures, are generally limited to small quantities of materials—usually 1 gram (1/28 oz.) or less.

Among Prof. Guiochon's many achievements has been his being involved with a team of French experts who have succeeded in scaling up gas-liquid chromatographic separations to the point where it is now possible to separate quantities of 1000 or more grams. This development will have a dramatic impact on technology in the fine chemical industry. Prof. Guiochon spent a month in the department, during which he gave a series of seminars and interacted with continuing research activities.

Among other visitors to the department was Dr. W.H. Gauvin, *National President of the Chemical Institute of Canada*. Dr. Gauvin is *Director of the Noranda Research Laboratories* in Pointe Claire, P.Q., where he is co-ordinating an active research program, involving government, industry and universities, to develop new technology for processing molybdenum ore, which while mined in Canada, is processed abroad. Processing the ore in Canada will obviously improve employment in a sector of the Canadian mining industry, which is coming under increasing cost pressures. Dr. Gauvin has a keen interest in developing Canadian technology and will be participating in a forthcoming Ottawa conference on "Research and Development—Strategy for Success", organized by the *Financial Post*.

Chemists from Dalhousie have also been active in participating in national and international conferences.

Dr. R.J. Boyd and post-doctoral fellow Dr. A. Gupta recently presented the results of their research on a new approach to the representation of electron correlation, one of the outstanding problems of quantum mechanics, to the 6th Canadian Symposium on Theoretical Chemistry at the

University of New Brunswick. Dr. Boyd was also chairman at a session at the conference which is one of three major international theoretical chemistry conferences held on a three-year cycle.

Dr. A. Chattapadhyay presented a paper entitled "Instrumental Neutron and Photon Activation Analysis of Suspended Matter in Estuary Water" (co-authored with Ms. K.M. Ellis) to the 3rd International Conference on Nuclear Methods in Environmental and Energy Research at the University of Missouri-Columbia.

Dr. J.A. Coxon, Dalhousie's Killam Research Professor of Chemistry, was invited recently as speaker at a joint chemistry-physics seminar at the University of New Brunswick. Dr. Coxon summarized the key results from his research program on diatomic molecules since joining Dalhousie in 1974.

Before this Dr. Coxon travelled to Europe as a participant in two major conferences in the field of molecular spectroscopy—the 13th International Symposium on Free Radicals, at Lyndhurst, England, and the 5th Colloquium on High Resolution Molecular Spectroscopy, at Tours, France. The latter meeting departed from the traditional short-talk format in favour of the more novel poster-session style. Dr. Coxon's contribution dealt with some of his most recent work on weak chemiluminescence of chlorine molecules in the near infrared.

Dr. K.E. Hayes attended the 5th Canadian Symposium on Catalysis in Calgary, presenting a paper (with C.J. Bowser) entitled "A Microcatalytic Investigation of the Hydrogenation of some Methyl Substituted Cyclopropanes over Platinum and Palladium Catalysts".

Dr. W.E. Jones, professor and chairman of the department, attended the International Symposium on Chemical Education held in Ljubljana, Yugoslavia. This meeting, entitled "Chemical Education in The Coming Decades, Problems and Challenges" was held under the sponsorship of UNESCO, the International Union of Pure and Applied Chemistry, the Federation of European Chemical Societies, the union of Yugoslavia Chemical Societies and the University of Ljubljana. The meeting immediately preceded the European Seminar on Chemical Education at which Dr. Jones presented a paper entitled "The Resource Centre, a Spark of Light in Undergraduate Chemical Education". The paper described the operation of the First Year and Advanced Resource Centres currently in operation in the Department of Chemistry at Dalhousie and attracted a wide interest from the conference attendance as this educational aid is not known to any great extent in European schools.

Prof. Jones returned to Canada by way of Southampton, England, where he attended the 13th International Symposium on Free Radicals. While at the meeting, he presented an invitation to the International Committee on Free Radicals to hold a future meeting in Nova Scotia. The committee recently informed Dr. Jones of their acceptance of his invitation and that the 15th international symposium will be held in Nova Scotia in 1981.

## Reprieve for Algoma —for five years

Algoma University College received a new lease on life when Ontario Minister of Colleges and Universities Dr. Harry Parrott promised last month to provide the institution with regular grants plus up to \$100,000 a year from the Ontario Ministry of Northern Affairs for the next five years.

The college has a population of 200 full-time students and approximately 1,100 part-time students and 31 faculty members. It provides primarily liberal arts post-secondary level instruction to the residents of Sault St. Marie, and would have been closed had the Ontario government followed the advice of a one-man Royal Commission. The commission (John Whiteside of the Faculty of Law, University of Windsor) was set up by the province to investigate the college's performance and determine its options for the future when the effectiveness of the institution's administration was questioned two years ago.

The decision to extend funding to the college followed a spirited campaign to keep the institution open, waged by the Algoma faculty, administration and trustees, the Canadian Association of University Teachers representing 23,000 university professors across Canada, and the Ontario Confederation of University Faculty Associations, a CAUT affiliate representing Ontario's university teachers.

The thrust of the campaign was aimed primarily at the commission's

recommendation to close the college and substitute its services with university-level instruction to be offered by the Lake Superior State College, a Michigan institution.

The commission was also criticized for examining the college's problems in a "negative" light, being unsympathetic towards various belt-tightening measures proposed by the faculty so that the college could remain open, and failing to understand the problems of delivering higher education to a scattered population in Northern Ontario.

All involved in saving Algoma expressed amazement at the fact that an Ontario commission had recommended that an American-based university deliver educational services to Ontario residents.

Dr. Donald Savage, CAUT executive secretary, said at the time that he found it extraordinary that the commission should find the idea that Ontario should be responsible for the education of all its citizens "nebulous", particularly given the sharp focus on Canadianization of universities which has been given by the Ontario Ministry of Colleges and Universities and by the Ontario Legislature in recent years.

On behalf of CAUT, Dr. Savage sent a letter of thanks to Dr. Parrott and expressed the conviction that the next five years would lead to creative solutions for the delivery of university services in the Algoma region.

## CAUT fees increase

Members of Dalhousie Faculty Association, who are automatically members of the Canadian Association of University Teachers, will pay higher CAUT membership fees in future as the result of changes in the fee structure.

The Spencer formula results in a differential fee structure; universities with high local fees pay less to CAUT, and vice versa.

CAUT fees are based on a mil rate and the new structure raises this rate by .1 mil, which means Dalhousie has been assessed a mil rate of 2.3 (i.e.

\$2.30 for every \$1,000 of salary). The rate is applied to median national salaries for four ranks (full, \$33,000; associate, \$25,000; assistant, \$19,000; and others) as supplied by Statistics Canada for 1976-77.

Monthly CAUT fees for Dalhousie faculty for the current year will be ('76-77 fees in brackets): Professor, \$6.42 (\$4.17); Associate, \$5 (\$3.05); Assistant, \$3.81 (\$2.46); Others, \$3.04 (\$1.97). Total monthly payments including DFA and NSCUFA membership: \$7.05; \$5.63; \$4.54; and \$3.67.

# Dal gets 7.6% increase for '78-79

## IT MAY IMPROVE MARGINALLY, BUT...

continued from page 1

(April 1) the position of the university will be marginally better than was the case at the beginning of the current year;

- The level of the non-space grant, which in 1977-78 was increased by about \$375,000 to restrain fee increases to six per cent;
- The irreducible increase in costs of utilities and services — oil, electricity, telephones, water; current estimates for 1978-79 indicate a minimum expenditure of \$685,000 after taking into consideration anticipated savings on operations with the computerized energy control system.

"As we continue to examine and, where possible, pare our budget for 1978-79, we expect:

- To replace faculty leaving, retiring, or on leave only in those situations where replacement is essential to maintain programs;
- To add very few staff for existing operations, except where this is deemed essential (e.g. the School of Business Administration, in which enrolment is increasing; the Department of Engineering, where enrolment has doubled in the past two years, and staff previously available from the Nova Scotia Technical College are now under the pressure of their own growing enrolment).

"In addition, we have a very real concern about salaries, and we do want to provide the maximum salary increments possible for continuing staff, especially in view of the comparatively small increase in 1977-78."

Extract from item 16, dealing with education, in last week's Speech from the Throne at the opening of the Nova Scotia Legislature:

"The recent decision by the Council of Maritime Premiers supporting regional funding will have the effect of providing most Nova Scotia universities with substantial increases in revenue over last year. My Government will take vigorous action to ensure that university tuition fees will not be increased for the coming year."

## Disappointed — Hicks

Dalhousie's president, Dr. Henry D. Hicks, said last week that he was disappointed that Dalhousie would get an increase in its operating grant of only 7.6 per cent.

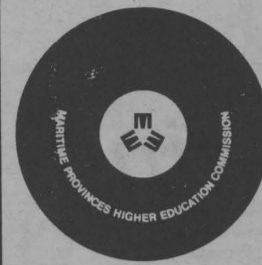
"But we appreciate the government's difficulties. If, however, the pressure of the past few years continues, the universities here will be hurt in relation to their position with universities elsewhere in Canada."

Dr. Hicks said that Dalhousie did not want to increase fees, "but it is too early in the budgeting process to make a commitment one way or the other."

(Other presidents' reactions Page 9).

## Operating grants for other Maritime institutions

Maritime Forest Ranger School	387,900
Mount Allison University	5,557,490
Saint Thomas University	1,652,640
Universite de Moncton	16,237,800
University of New Brunswick	30,213,680
Acadia University	8,137,720
Atlantic Institute of Education	663,500
Atlantic School of Theology	289,720
College of Cape Breton	5,089,620
Mount Saint Vincent University	3,937,700
Nova Scotia Agricultural College	1,083,780
Nova Scotia College of Art and Design	1,878,400
Nova Scotia Land Survey Institute	523,030
Nova Scotia Teachers College	3,846,160
Nova Scotia Technical College	4,186,420
Saint Francis Xavier University	7,262,300
Saint Mary's University	8,006,060
Universite Sainte-Anne	1,178,180
University of King's College	644,930
Holland College	1,894,450
University of Prince Edward Island	6,719,550



## The Maritime Provinces Higher Education Commission FINANCIAL PLAN 1978-79

The Maritime Provinces Higher Education Commission this month released a report entitled Financial Plan 1978-79. The report contains the commission's financial assistance recommendations for the fiscal year 1978-79 together with forecasts for the two subsequent years. The recommendations were presented to the Council of Maritime Premiers at its September meeting in Yarmouth, N.S.

The commission has recommended for its post-secondary education institutions, an operating assistance increase of 14 per cent for 1978-79 that consists of 11 per cent for the sustenance of ongoing levels of activity, 1.5 per cent to equalize institutions that receive a relatively low level of support and 1.5 per cent to equalize all institutions with levels of support in the rest of Canada.

The equalization provisions represent initial steps of five-year processes. Capital assistance recommendations relate primarily to the renovation of existing facilities, the construction of regional facilities, and the provision of regular non-space and alteration and renovation allotments to institutions.

In the report the commission expresses strong concern about the deterioration of the financial position of post-secondary institutions within the region that has taken place since 1975-76.

The commission cites the slipping salary levels, the highest tuition fees in the country, the reduction in real terms of operating grants per full-time student and the decline of operating assistance as a percentage of total government spending as evidence of the deteriorating position.

The commission is also concerned that the lack of funding for new programmes, and cutback in course offerings, library acquisitions, and personnel will have an adverse effect on the quality of programmes.

The commission's recommendations are currently being considered by regional treasury board and the ministers responsible for higher education in the three provinces. It is expected that the Council of Maritime Premiers will give further consideration to the recommendations at its next meeting in December.

# AT THE CROSSROADS

Pursuant to its act of establishment, the Maritime Provinces Higher Education Commission submits to the Council of Maritime Premiers for approval, a plan for financing higher education in the region for the year 1978-79. In addition, forecasted levels of assistance for 1979-80 and 1980-81 are also presented.

The commission's recommended levels of government support for post-secondary education on the basis of government fiscal periods are:

1977-78	1978-79
Operating Grants:	
Basic grant	\$28.8 million
Enrolment grant	9.5 million
Total	\$38.3 million
Capital Grants:	
Non-space	\$ 1.0 million
Alterations, etc.	.5 million
	\$ 1.5 million

In the last two years, the commission has become increasingly concerned about the support levels approved for the region's post-secondary institutions. The commission's 1978-79 recommendations reflect this anxiety and it is the commission's view that the council and the region's governments are at the crossroads in making decisions on the future of higher education in the Maritimes.

—from UNIVERSITY NEWS,  
Nov. 25, 1977.

## Government grants to Dalhousie for 1977-78 and 1978-79:

	1977-78	1978-79
a) Operating Grants:		
Basic grant	\$28.8 million	\$30.9 million
Enrolment grant	9.5 million	10.3 million
Total	\$38.3 million	\$41.2 million
b) Capital Grants:		
Non-space	\$ 1.0 million	?
Alterations, etc.	.5 million	?
	\$ 1.5 million	?

Operating grant increase for 1978-79:  
\$2.9 million, or 7.6 per cent.

## MPHEC'S letter to Dalhousie

MPHEC  
Jan. 20, 1978

Dr. Henry D. Hicks  
President  
Dalhousie University  
Halifax, N.S.

Dear Dr. Hicks:

The Council of Maritime Premiers has responded to the Commission's operating assistance recommendations for 1978-79 by approving an increase in global operating assistance of 7.4%. This increase consists of a basic increase in assistance for institutions of 6.7% and 0.75% for the regional equalization of institutions. In addition, the Provinces of Nova Scotia and Prince Edward Island agreed to provide an additional operating grant increase of 1% to institutions within their respective provinces.

In responding to the Commission's financial recommendations, the Council agreed

- to provide sustenance increase of 6.7% rather than 10.8% recommended
- to provide 0.75% for regional equalization rather than the 1.5% recommended (i.e. equalization to be over 10

- years rather than five)
- not to provide the 1.5% recommended for national equalization
- that it was not possible to respond to the final two years of the Commission's three year financial plan
- that, with approved funding levels, tuition fee increases should be minimal and should not exceed the rate of cost of living increases
- that the Commission's capital recommendations be considered on an individual province basis.

The Commission has allocated the approved level of assistance among institutions. In doing so, the basic increase was allocated uniformly among institutions while the provision for regional equalization was allocated to those institutions presently receiving a relatively low level of support.

Subject to the total levels of assistance being appropriated by the respective legislatures, the approved 1978-79 operating grant for Dalhousie University is \$41,248,440. This grant is composed of a Basic Grant of \$30,934,200 and an Enrolment Grant of \$10,314,240.

The Commission, in 1978-79, continues its policy that institutions shall not incur accumulated operating deficits without prior Commission approval and its policy whereby institutions, which do incur such deficits subsequent to 1974-75 in excess of 2% of annual operating grants, will be required to reduce the accumulated deficit by a minimum of 2% of the next year's operating grant up to the amount of the deficit. Non compliance with this latter policy by an institution will result in the Commission suspending consideration of that institution's requests for new programmes or capital projects.

In terms of your institution, the deficit reduction policy has no immediate impact since the accumulated deficit for the University at the end of the 1976-77 fiscal year was less than 2% of operating assistance.

The Commission considers the Council's response to its financial assistance recommendations to be appropriate given the current financial pressures being placed upon the region's governments. The Commission's recommendations, which were submitted in September 1977, were based on assumptions which already have changed. The projected upturn in the

economy has not taken place as was expected. For this reason and because of a reduction in federal transfers, provincial government revenues will be considerably lower than originally anticipated.

The Commission recognizes that the level of grant increases will present difficult financial circumstances for most institutions. This is the third year in which institutions find themselves in the throes of restraint with no relief in sight. It therefore becomes essential that intensive planning and difficult decision making take place to insure that financial stability and quality levels of service are possible in the long run.

I have attached a copy of the press release announcing the grant increase together with a listing of the grant allocations among institutions.

It is expected that the Commission will be receiving a response with regard to its Non-Space and Alteration and Renovation recommendations within the next few weeks. I will communicate your institution's allotments to you as soon as possible.

Sincerely yours,  
Catherine Wallace  
Chairman

## MPHEC's press release

The MPHEC issued the following press release at the end of last month.

"The Maritime Provinces Higher Education Commission announced today that it has been informed by the Council of Maritime Premiers of 1978-79 operating assistance levels for Maritime post-secondary institutions. The Council of Maritime Premiers has approved a funding level which provides a 6.7 per cent increase in operating grants and which will enable a basic increase in total institutional operating budgets of approximately 5.3 per cent should tuition fees stay at 1977-78 levels. In addition, several institutions will receive equalization grants that will enable these institutions to move closer to the average level of support for Maritime institutions. The provinces of Nova Scotia and Prince Edward Island have also agreed to provide an additional 1 per cent increase in operating grants (approximately 0.8 per cent increase in total budgets) to institutions within their respective provinces.

"The council stated that it was not

continued on page 9



# Alice-in-W'land logic, amazing

By Dr. J. Philip Welch  
President  
Dalhousie Faculty Association



Welsh

The Maritime Provinces Higher Education Commission, a body established by the Council of Maritime Premiers, has now released the response of the premiers to the earlier recommendations of the MPHEC regarding financial support to Maritime universities for 1978-79.

Viewed in the light of the MPHEC's earlier comments and recommendations of last November, this latest release is amazing indeed. The earlier document contained abundant thinly-veiled criticism of the past financial support provided by the premiers to Maritime universities. This latest release is quite complimentary to the premiers.

The earlier recommendation of the MPHEC was for an overall increase in financial operating assistance to universities of 14 per cent for 1978-79. The premiers have approved an increase of 8.4 per cent, a decrease of no less than 40 per cent from the MPHEC's recommendation.

Yet far from being critical of the premiers' response to their recommendation, the MPHEC apparently considers it to be "appropriate", supposedly because the recommendations of the MPHEC "were based on assumptions which already have changed". Also, according to the MPHEC "the projected upturn in the economy has not taken place" and there has been "a reduction in federal (financial) transfers".

These comments must be examined in relation to the time interval concerned. The original MPHEC recommendations were, according to the commission, submitted in September, 1977, although they were not released to the public until mid-November. The recommendations were considered by the Council of Premiers in December.

Are we to believe that the assumptions on which the recommendations were based have changed so remarkably within a maximum of three short months as to justify a 40 per cent reduction in the amount recommended?

Are we to believe that the MPHEC expected an upturn in the economy between, at best, September and December, the absence of which now justifies a 40 per cent cutback?

The commission also blames a reduction in federal transfers as responsible for this low level of support. Their own earlier submission identified (a) a consistent financial starvation of the universities by the Maritime governments over a period of seven years and (b) a significant decrease over the past five years in the proportion of total provincial government spending allocated to higher education. The MPHEC also documented an increase of federal payments to the Maritimes, relevant to the cost of post-secondary education of over 37 per cent between 1976 and

1977 while the provincial financial contribution **decreased** by 42 per cent over the same 12 months.

Are we now to believe that a reduction in federal transfers justified the premiers' actions?

Three interpretations of this Alice-in-Wonderland logic seem possible.

First, perhaps the MPHEC is really incapable of making a reasoned and fair estimate of the extent of needed financial support.

Second, the provincial and national economy may be so unstable that a fair estimate of needed expenditure today may be reasonably reduced by 40 per cent in two or three months' time.

Third, perhaps the MPHEC have received several swift under-the-table kicks from the premiers and instructed to get their act into line.

Whichever interpretation is nearest the truth leaves one wondering about the utility of spending one-half million dollars per year in maintaining the MPHEC in these times of financial restraint.

It is of considerable interest to examine the recommendations of the MPHEC with particular regard to Dalhousie University. Last year the MPHEC awarded 7 per cent to Dalhousie and to other Maritime universities.

In some strange way, however, virtually every other Maritime university was able to increase faculty salaries substantially more than did Dalhousie. The current Dalhousie minimum salaries for each academic rank are now by far the lowest among the Maritime universities—and the difference between Dalhousie and the average Maritime salary floors runs from \$1500 to over \$2000, depending on rank. It is well known that about 70 per cent of the expenditures for any university are for salaries. Since the Maritime premiers have approved the allotment of 0.75 per cent for financial equalization of institutions within the region, we would certainly expect that a substantial portion of these funds would accrue to Dalhousie to help bring our salaries up to the minimum of other Maritime institutions.

But—surprise! The MPHEC is not allotting any of the regional equalization funds to Dalhousie.

Two explanations seem possible. Either the MPHEC does not regard these huge salary disparities as evidence of regional inequality, or, the MPHEC feels that Dalhousie is equally capable of providing the faculty salaries and salary increments given at other Maritime institutions. It would certainly be of interest to know which of these explanations comes closest to the truth. If the latter, it follows that the very full disclosure of financial information by Dalhousie to the MPHEC has failed to convince that body that the university cannot provide more reasonable salaries for its faculty.

cost of living increases.

"The response by the council varies from the commission's recommendations in that it precludes a 1.5 per cent provision for national catch-up, supports regional equalization of assistance to institutions over a ten year period rather than the five years proposed by the commission, and provides operating increases of 6.7 per cent in New Brunswick and 7.7 per cent in Nova Scotia and Prince Edward Island for sustenance rather than the 10.8 per cent recommended by the commission. The anticipated tuition fee increases coincide with those expected by the commission.

"The commission's capital recom-

# 7.6%

## What the presidents have said

The Rev. Malcolm MacDonnell, chairman of the Association of Atlantic Universities, and retiring president of St. Francis Xavier:

"Our financial picture for next year is not yet complete. While we do know, and months earlier than in previous years, the principal portion of the government's operational support, we still have no definite information on non-space funding and grants for alterations and renovations. These latter items are substantial. A reasonable increase in their amount can mean a very significant easing in what now looks like quite a tight situation.

"More than 20 per cent of our income at St. F.X. comes from tuition. Already our tuition levels in the Maritime region are uncomfortably high, especially with employment and general economic conditions so strained in the region. Modest increases in tuition will certainly have to be considered. But a raise sufficient to ease budgetary strains substantially would certainly discourage a number of students from attending university.

Professor Ronald Baker, UPEI: "When everyone else is being restrained, we have to expect to be restrained, too. Our needs have not changed but we have to recognize the ability of government to respond to these needs has changed."

Dr. Owen Carrigan, Saint Mary's, echoed the concern of several members of the AAU that the grant, less than was hoped for and recommended by the MPHEC, might lead to increased tuition costs, and thus prevent some students from attending university. "There is always a group of students who are on the margin of not being able to afford university."

Sister Mary Albertus, retiring president of Mount Saint Vincent University, said the spending cutbacks would probably mean tighter limitations on program expansion and salary increases to university staff.

Dr. John Godfrey, University of King's College: "We are disappointed that it isn't higher but we sympathize with governments who are having hard times because we realize their revenues weren't as high as anticipated. It is reasonable that universities should make a proportionate sacrifice along with other public and social services sponsored by the government. I have asked our financial people about an appropriate level of fees next year. On the one hand we don't want to go broke, but we don't want to break the students either."

recommendations will be considered by the Maritime governments on an individual province basis.

"In reacting to the council's response, the MPHEC recognizes the fiscal pressures facing the governments of the Maritime provinces. The commission's financial plan, submitted in September 1977, contained assumptions which already have changed as the projected upturn in economic growth is not occurring as expected. In addition, provincial revenues from the federal government are significantly lower than anticipated. Provided that adequate alteration and renovation and equipment funding is forthcoming following discussions on the MPHEC's capital recommendations, the commission considers the council's response to its recommendations appropriate in the present circumstances. The commission expects its post-secondary institutions will have to make difficult decisions in continuing to deal with financial restraint."



Sampson

# So much said, so little done

By Robert Sampson  
President  
Dalhousie Student Union

The figures released on Jan. 27 by MPHEC, the ones handed down to them by the Council of Maritime Premiers, were merely half the amount recommended by MPHEC in September of 1977.

The MPHEC's original recommendation was for an increase of 10.8 per cent operating assistance, an additional 1.5 per cent for regional catch-up, and another 1.5 per cent, for a total of 13.8 per cent, was recommended for national catch-up—a situation where we have lagged behind for some time now.

We have received a global operating assistance of 7.4 per cent, .75 per cent over 10 years for regional catch-up and no allotment for national catch-up.

For two years in a row we have seen the MPHEC's recommendations rejected and replaced by arbitrary amounts, amounts that are not nearly enough. Many question the credibility of MPHEC when this happens and further question the need for such a body which, as we have seen, is ignored by the governments.

Here at Dalhousie we are again faced with higher tuition fees as a result of this offer. Not only are the students faced with increases, but the faculty and staff have already felt the setback in their recent contracts.

I am afraid many of these increases promised by the administration won't be realized in light of these 1978-79 operating grants and there is no relief

in sight.

It's time to ask ourselves how important an educational institution is within the government's priorities, and if you feel as I do you will get off your butt and speak out against this recent decision handed down by MPHEC.

I don't want you to feel that the government is all to blame. The administration must also share it, failing to draw priorities and continuing to waste monies in various areas of the university.

We have felt the pinch here at Dalhousie for some time now and many feel the quality has been reduced. Whether it is true or not is a question yet to be answered. I feel, however, that our staff and faculty have yet to be utilized to capacity. With the exception of a few, many faculty spend little time in class or on campus. The university's way of evaluating such a professor is strictly on his publications and research. A lot of help this is for the student who needs advice after class! When one really looks at this method of evaluation, a faculty member is not being paid to teach us but rather to teach himself through research and writing. Are not these priorities mixed up?

In closing, much is left to be said about our government, MPHEC, and the university and these few comments are merely the beginning of what will be a long fight for all of us.

# Why did Premiers ignore MPHEC?

From the Executive  
Dalhousie Staff Association

"The MPHEC is the Maritime Provinces Higher Education Commission. Established in 1974, it functions as an agency of the Council of Maritime Premiers. In structuring the Commission, the three Maritime Provinces created a regional mechanism to assess existing needs, to formulate independent and objective advice to institutions and governments, and to plan co-operatively for the future structure and development of higher education in the Maritime region."

The foregoing is a direct quote from a publication of the MPHEC, *In Process, Three-Year Regional Planning for Higher Education in the Maritime Provinces*, dated April, 1977.

You ask for our reaction to the announcement that, for the second

year, the Council of Maritime Premiers has cut in half the recommended operating grant to Maritime universities.

Our reaction can only be, as it was last year, **why** did the Council of Maritime Premiers create this agency "to assess existing needs, to formulate independent and objective advice... to governments," and then completely ignore its "assessment" and "advice"?

It must cost us a fair amount to have the Maritime Provinces Higher Education Commission functioning on our tax dollars. If its recommendations are worthless, surely the obvious answer is to disband it and use that MPHEC budget to raise the ante to the Maritime universities.

# Not our problem—CUPE

Al Cunningham, regional CUPE representative, said that where the university got its money from was not his problem. By law CUPE had to negotiate with the university and not the premiers. "Maybe the premiers are

creating a strike." He said that CUPE members at the university were well behind their counterparts working elsewhere in the city and they had to catch up.

# Not enough—Engineers

Reg Fenerty, of the International Union of Operating Engineers, felt the university could not get along with the increase of 7.6 per cent. The engineers were already behind the rest of Canada in wages. From the point of view of his union, he said that it was not only the

money which was being held by the university, but they were feeling a reduction in the fringe benefits they used to enjoy. Now that these were being taken away, the struggle for better financial settlements would begin.

## Press release

continued from page 8

able to respond to the final two years of the MPHEC's three-year plan.

"The commission has allocated the approved assistance level among institutions. Institutions will be informed, in the near future, of their 1978-79 grants. Such grants will be subject to the appropriation of funds by the provincial legislatures.

"The council, in its response to the commission, also indicated that it is expected that, with the approved funding levels, tuition fee increases will be minimized and not exceed the rate of

# It'll be a winner

—and Bellemare will take much of the credit

It's flexible—that's a key selling point.

It's going to be accessible to all—another plus.

It's going to be one of the best facilities of its kind in North America, perhaps the world.

It's going to be a winner.

It's the Physical Education, Recreation and Athletics Centre, now no more than a year away from completion.

Who says it's going to be a winner?

Ken Bellemare, head of the athletic and recreation services division of the School of Physical Education.

He may be a little biased, but he ought to know, being one (of the few) who for months now, has been immersed in the operational planning for the centre.

Since his return to Dalhousie in 1976 after a stint with the provincial department of recreation, Bellemare has been up to his eyes in round after round of studies, discussions, meetings, visits to other centres.

Almost every waking hour, his thoughts are on the tedious but so vital scheduling of time and space for the centre, of the programs that will be accommodated, of staffing, of supplies. And his non-waking hours, too, could at times be more restful.

"Sometimes in the middle of the night, I'll wake up and think of something concerning the centre," he says with a smile.

Not nightmares exactly, but one can envisage even the most hyperactive mind—and Bellemare's is as alert and agile as the best in the business—boggling over the participation possibilities, and the potential mix-ups, on the field house floor, for example.

The main floor is 90 by 70 unobstructed yards.

Fourteen games of badminton can be played at the same time.

Or 10 games of volleyball.

Or five basketball games.

Or six games of tennis.

Or one game of soccer [admittedly on a shortened pitch]. Or a game of field hockey.

By Derek Mann

The permutation possibilities, while not endless, are nevertheless considerable. Which is why time and space scheduling is so important, even at this early stage, months before the building is due to open.

If he worries about the scheduling and the staffing, Bellemare doesn't show it. Outwardly, when he talks about the centre, he exudes confidence.

"Without a doubt, it's one of the best facilities in North America... the laboratories, for physical education and research, are comparable to anything anywhere... classrooms will be available, and we won't have to run all over campus... activity areas will be in abundance... we'll accommodate 500 people at any one time..."

Bellemare is invariably in top form when he gets the chance to stand before an audience and extol the virtues and wax enthusiastic on the potential of the centre.

If the audience isn't all that interested in recreation or physical education at the beginning, they certainly will be once Bellemare gets into the topic through his presentation, and the questions to him at the end come thick and fast.

Who will be able to use the facilities? (Everyone—we're still working on the scheduling)

How much will it cost? (Not much, but that is something we also have to work out)

The main floor will be pressurized, to keep the roof in its low bubble shape; how much pressure? (It won't be noticeable, even though access to the floor will be through revolving airlock doors)

You're emphasizing participation, activity; does that mean no spectators or spectator events? (The emphasis is on activity, but we don't want to play down the spectator aspect too much, and we will be able, on some occasions, to accommodate 3,000 spectators)

And so on. Most of his audiences, however, are interested in what the centre will offer—even enthusiastic. One such group was the board of directors of Sport Nova Scotia, with which, among other local recreation and sports organizations, Bellemare and the school are collaborating on the uses of the centre after the university's requirements have been filled.

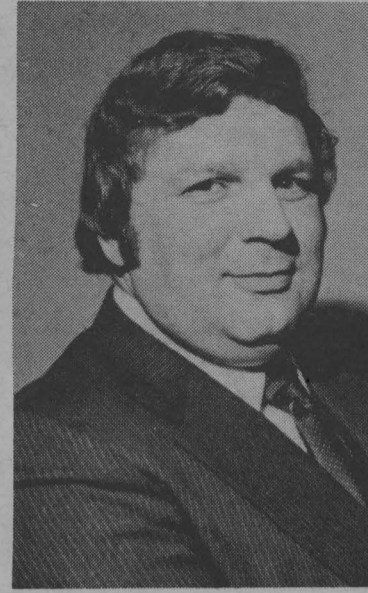
Sport Nova Scotia was delighted with the plans for the centre, and the directors were not backward in their enthusiasm for the facilities and the plans for it.

Equally enthused are the alumni of the university who have taken on the role of volunteer canvassers in the \$3.375 million fund-raising campaign, DALPLEX. And the alumni are the ones who have to know many answers if they are to persuade others to donate funds.

At a small gathering of a DALPLEX committee at the end of last month, Bellemare did his usual masterful job of describing the plans and potential uses of the centre.

As the centre approaches completion, and as Bellemare and his colleagues tick off step after step in the critical path of their planning, everyone involved must be pleased.

When it eventually opens for business, Bellemare will feel, as will his colleagues—and all the Phys Ed staff and the students who have had to put up with the existing dilapidations—a



Bellemare: On the ball

great sense of pride and relief and satisfaction.

As the Dalhousie Gazette's sports co-ordinator, Peter Hayes, was moved to write in the Feb. 2 issue: "It promises to be a marvellous facility... one can only look with eager anticipation and awe at what the future will hold for sports at Dalhousie."

Once in operation, the centre will be a winner, and much of the credit must go to Bellemare.

## Festival winners to present opera excerpts

The Music Department's Opera Workshop will present an Evening at the Opera, March 2 and 4, at 8:30 pm, in the Sir James Dunn Theatre of the Arts Centre.

Highlight of excerpts from the great operas will be the complete final act of Verdi's Rigoletto. The workshop students, under the direction of Prof. Jeff Morris, will also present scenes from seven operas by Mozart, Rossini, Bizet, Verdi and Puccini.

The program will give opera fans the opportunity to hear students of the Music Department who achieved success in the recent Halifax Kiwanis Music Festival. Barbara Fris, Rose Bowl winner, will be heard as Violetta in La Traviata and Gilda in Rigoletto. Ruth Prentice, who won top honours in the provincial voice competitions and will go to the national finals in Ontario, will sing the role of Zerlina in extracts from Don Giovanni. Barbara Fischer, winner of the opera and lyric soprano classes, will also sing in the Don Giovanni scenes. Richard March, winner of the French and Italian art song classes, will be Alfredo in a scene from La Traviata.

## AMC course for Dal secretaries

The Advanced Management Centre of the Institute of Public Affairs will offer an evening course for Dalhousie secretaries and support staff beginning on March 6.

The course will provide learning opportunities and experiences for participants which will lead to growth and development at the personal and professional levels.

It will be a learning-by-doing program with emphasis on the practical application of skills and techniques.

## Murphy's Law promises more

Murphy's Law, the Music Department's experimental ensemble, has been providing concerts full of sound surprises for nearly four years now, and on Feb. 22, the performance promises even more of the unusual.

The concert will feature several new (and not-so-new) pieces by Steve Tittle and Richard Gibson, including two percussion works with the Dalhousie Percussion Ensemble and a piece for

oboe and tape written by Gibson for guest oboist James Blight, of Moncton.

In the electronic music category there will be a piece for tape and three "live" synthesizers, and TROPIC for tape and three slide projectors by Tittle. Finally, some new jazz compositions especially written for Murphy's Law by Tittle and Scott Mac-Millan, guitarist with the group, will be presented.

## PRIZE CROSSWORD

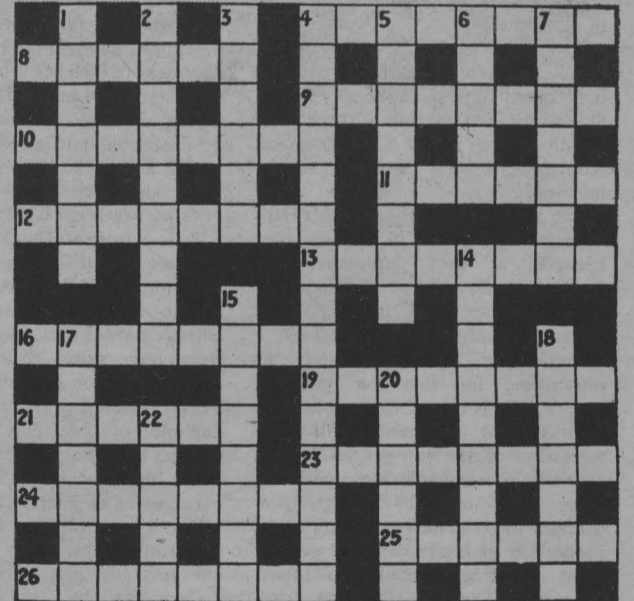
ACROSS No. 2710

- 4 Wood to burn—the sort to have with fish. (8)
- 8 A service in church, and the wine vessel for it. (6)
- 9 Try out underground accessory in the lab. (4-4)
- 10 Girl imprisoned and wasted. (8)
- 11 Believe in honour. (6)
- 12 Right in the bay and on this resort. (8)
- 13 Boss likes endlessly broken pillars. (8)
- 16 Inert animal takes direction by an insect. (8)
- 19 Go in this perhaps when giving a lift. (8)
- 21 Settling the relative rank of a sailor. (6)
- 23 Would you call such an article of clothing overnice? (3-5)
- 24 Troops order their own arms here! (2, 6)
- 25 Many angling items used for other angling items. (6)
- 26 Politicians don't sit in these nooks. (8)

A prize of \$10 will be awarded for the first correct entry opened. All members of the university community—faculty, staff and students, alumni and members of affiliated universities—are eligible to enter, with the exception of the staff of the Information Office and others involved in the production of University News.

Entries must be received no later than one week from the date of the paper in which the puzzle appears.

Winner of Puzzle 2709 was Elizabeth Sellick [Law I], 1102 South Park Street. [Entry received 9 a.m., Friday, Feb. 3].



DOWN

- 1 Right form of praise for weapons. (7)
- 2 Service getting older could provide relief. (9)
- 3 Object to being despatched again. (6)
- 4 Puss in the parlour making music? (6, 2, 3, 4)
- 5 Rest once, maybe—it's quite open. (2, 6)
- 6 French and English articles make a useful tool. (5)
- 7 Beat writer first with a club. (7)
- 14 Lets in lad for a change when set up and put in use. (9)
- 15 Criminals' methods for landing in dock? (8)
- 17 One who's only learning on the railways? (7)
- 18 Whimpers because French wines are given up by the Spanish society? (7)
- 20 Install in air-passage. (6)
- 22 Senseless in an English abbreviation. (5)

### SOLUTION TO 2709

Across: 1. Radiate; 5. Chalice; 9. Affirms; 10. Awarded; 11. Hereward the Wake; 12. Sherpa; 14. Painters; 17. Interval; 18. Snoops; 21. Hard and fast rule; 24.

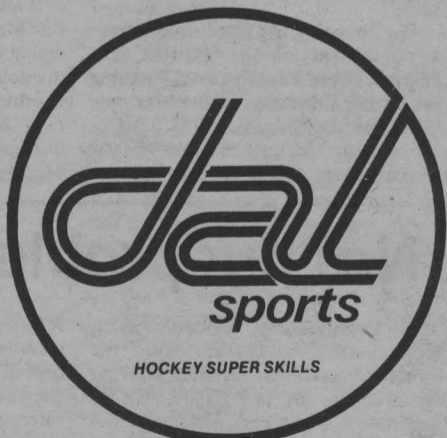
Ranking; 25. Reddest; 26. Troughs; 27. Worsted.

Down: 1. Reaches; 2. Deferment; 3. Arrow; 4. Ensure; 5. Claptrap; 6. Agamemnon; 7. India; 8. Endless; 13. Par-

taking; 15. Emolument; 16. Bandages; 17. Inherit; 19. Sweated; 20. Jarrow; 22. Rondo; 23. Tudor.

—Sunday Times Service

## Hockey super skills family night



The Division of Athletics and Recreation Services is holding a Hockey Super Skills Family Night on Monday, Feb. 20 from 6 to 8 p.m. at the Dalhousie Rink, to allow children participating in the division's hockey camps to demonstrate their new-found skills to their parents and friends.

Pierre Page, head instructor of the Super Skills camps, will present the three facets of the program: power skating, speed shots, teaching techniques and games.

Before the demonstrations, sports community relations officer, Rod Shoveller will introduce Ken Bellemare, head of the Athletics and Recreation Services Division, Nila Ipson, director of the intramural and recreation program, and Pierre Page to the audience.

Parents and friends are encouraged to bring their skates along. The last 45 minutes of the evening will be for family skating.

# A soccer lesson for the Tigers

## DOWNED BUT NOT DISHEARTENED —AND THEY LEARNED



By Derek Mann

When Dave Houlston, soccer coach at Dalhousie last year, took the Tigers to Britain for a post-AUAA festive season soccer tour, neither he nor his charges held out any great hope of success in terms of resounding victories.

**After all, they were going for the experience.**

And Houlston was confident the Tigers wouldn't disgrace themselves or Dalhousie.

**On all counts, he was right.**

The Tigers were given a soccer lesson. Several, in fact. But learn they did. The hard way—by being on the losing end more times than they themselves and many regular Tigers' fans can remember; their AUAA winning streaks in the last few years have been so common as to become almost dull, at least against the local opposition they've had to face.

It's a fact of soccer life, in the countries where it's a national sport that often, the poorer the opposition, the poorer a good team will play; unless a top-class team can rise above the mediocrity of poor opponents, then it will be dragged down to a mediocre level.

Conversely, a poor team with talent and potential will often rise to the occasion and give a good team a good game.

It's a safe bet that Houlston and his predecessor-successor, Tony Richards (on sabbatical, but he'll be back for next season), saw the writing on the wall. After so long at the top, the Tigers were feeling the lack of good opposition with considerable ease.

It's a safe bet, too, that the players recognized their own shortcomings; hence their approach to Houlston last fall to bid for a Christmas tour of Britain.

**The tour probably did the Tigers the world of good. Certainly they learned.**

Among the lessons they did learn was that there are more pleasant activities than picking the ball out of your own net 33 times in 540 minutes of playing time, and to keep smiling, and going on trying, and trying and trying, while scoring only four goals against six teams. In truth, that takes fortitude.

The Tigers were soundly beaten in four games. They missed a penalty—which should never happen, but does, and often, even in world-class soccer—



**Coach Houlston**

to lose 1-0 in another game, and finally won one, 1-0.

Coach Houlston, whose studies and soccer coaching stint with the Tigers ended just before Christmas, is back in England now, and a couple of weeks ago, he sent us his impressions of the tour:

"The soccer Tigers assembled in Leeds on Dec. 27, many of the players having spent Christmas in Britain. Accommodation was found at Trinity and All Saints College in Leeds.

"The Tigers suffered an eye-opening 8-2 defeat by a strong Carnegie College team in their first match. Considering their six-week layoff, the Tigers began to show signs of changing their style to cope with their opponents. It is still, however, a brand of soccer which demands which demonstrates a high degree of skill.

"At this level the British game showed a far greater control and performance of the simple skills. This, however, may highlight the current demise of top-class soccer in Britain at present—plenty of method, but a lack of improvisation and innovation.

"The Dalhousie squad travelled next to Scotland to play against Queens Park at the famed Hampden Park. The Tigers were given the visitors' dressing room, one which has been used by many famous national and international teams in the past—a far cry from Dalhousie's present facili-

ties.

"Unfortunately the Tigers found they still had a lot to learn about soccer, and fell 5-1.

"After a New Year break the squad re-assembled at the Centre for Conferences in Walsall, in the West Midlands. The Tigers had the opportunity to visit future opponents, Wolverhampton Wanderers, watch a first division game and look over the club's facilities.

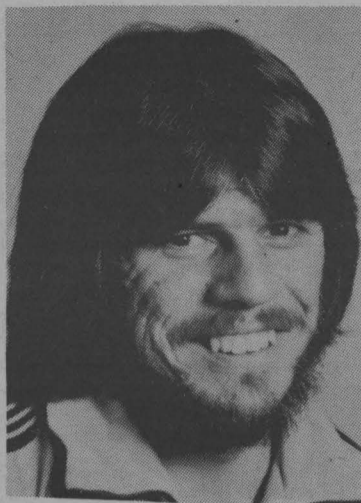
"The third game of the tour was against Manchester County Schools. Played in Bury, it was an exciting and closely fought game, in which the Tigers missed a penalty shot and finished again on the losing end, 1-0.

"The following day (Jan. 4), the Tigers travelled to Sheffield for a game against Sheffield Wednesday. Before the game they watched a training session and toured the club's facilities. In the game against Sheffield Wednesday Reserves, the Tigers turned in their worst performance of the tour, resulting in a lack-lustre 5-0 defeat.

"Wolverhampton Wanderers provided the next challenge. The Wolves paid the Tigers a handsome compliment by fielding their full reserve team. This is equivalent to the top Canadian college hockey team playing against a Montreal Canadiens team.

"Despite an overwhelming from disgraced, playing far above themselves, and the Wolves' coach paid tribute to them and offered some good advice. Indeed, the Tigers can take some satisfaction that a British Universities Select team lost 16-0 to Wolves' reserves, and the fact that the Wolves' coach considered the Tigers much better than he had anticipated was sufficient reward for the Tigers. But they were given a soccer lesson, and learned a great deal.

"The final game of the tour was against a Cannock Select team, and one the Tigers desperately wanted to win. They showed fine potential and applied great ability and their



**Player Manley**

recently-acquired soccer experience, eventually winning 1-0.

"Although the results seem to indicate the Tigers were out-classed, they went to Britain to learn, and I am sure they did.

"It is a credit to all of the players concerned that at no time during the tour did they drop their heads. They all agreed that the game at Wolverhampton was their best, even though their heaviest defeat.

"The 1978-79 AUAA season will unfold the lessons learned, and I wish Tony Richards the very best of fortune, for he will have some excellent players.

"The whole tour was a great success, the Canadian members of the team being overwhelmed by the fact they considered even greater than Canadians' passion for hockey.

"The Tigers were certainly excellent ambassadors for Dalhousie; they made many friends, got a lot of experience and, on a personal note, left me with a feeling of pride in their efforts last season."

\*\*\*\*\*

**John Manley**, a Killam scholar, ex-Edinburgh University, now completing his PhD in history, and Tigers' club captain last season, also made the trip to Britain. Manley concurred with Houlston's view that the Tigers learned:

"As the oldest player on the Dalhousie team, and one who plays the game at a pace

conducive to reflection, I believe that my assessment of the development of the Canadian players is a valid one.

"Quite simply, all were aware of their technical deficiencies and were made more so by the experience of playing against professional players.

"But by the end of the tour, a clearly discernible improvement among all the Canadian players had taken place. This was perhaps best seen in the final game, especially in the play of goalkeeper Greg Forbes.

"After a relatively sedate Canadian season, he was rudely awakened to his shortcomings. In the final game he demonstrated that he had learned several lessons and was a material factor in Dalhousie's victory in the final game."

Manley, the only Scot on the team—he hails from Glasgow—unwittingly (?) let his patriotism show (even though today's soccer fans in England, Scotland or Wales will probably agree) in his closing comments:

"As the sole Scotsman on the team, I would like to add that the best soccer played against us was by the Queen's Park (Glasgow) team. It is an innovation in British soccer notwithstanding, the quicksilver play of the Scottish boys was delightful to observe and perhaps accurately reflects the current paramount status of Scotland in British soccer."

\*\*\*\*\*

Clearly, the tour was a success, despite the awesome goals-for, goals-against figures. For a lesser spirited team, the outcome would have been disheartening. For the Tigers, the valuable lessons learned in losing—and winning ISN'T everything, they'll tell you—ought to show up demonstrably in their play next season.

## The volleyball Tigerettes: Meet the newcomers

Now that the intercollegiate volleyball season is well under way, and the Dal Tigerettes are off to a good start, let's take a closer look at the players, especially some of the rookies.

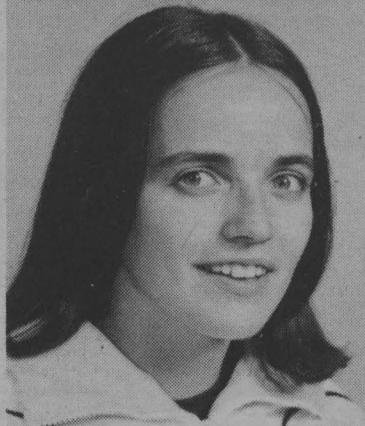
The Tigerettes have five returning players from last year—**Norma Hogg** (captain) in her third season, **Nancy Weeks**, **Deb Porter**, **Beth Fraser** and **Susan Cox**, —in their second term. In addition, **Joan Matheson** from Acadia has joined the line-up.

Complementing the returning players is a fresh crop of rookies from throughout Nova Scotia:



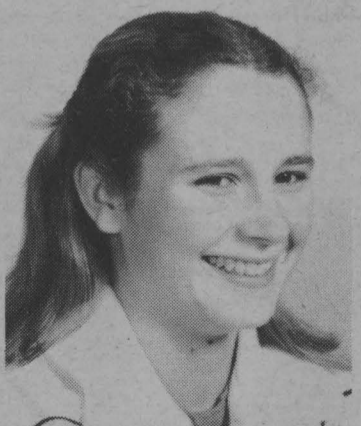
**Cindy Moore**

**Cindy Moore**—In her first year at Dalhousie, Cindy has performed well enough to find herself a position on the starting line-up. A native of Halifax, Cindy led her Halifax West High School to the provincial championships last year, and in the summer, she was a member of the Nova Scotia "Whites", which won the International Tuchikora IV volleyball tournament in England. A Phys. Ed student Ms. Moore has formerly swam competitively for the Halifax Trojans.



**Linda Weaver**

**Linda Weaver**—A freshman, she is a first-year B.Sc. (Engineering Physics) student. Last season, she was captain of Baddeck Rural High's team. In addition to volleyball, Linda has won provincial honours in tennis and swimming in Newfoundland. An exceptional student, she won both the Lieutenant-Governor's and Queen Elizabeth II medals, and maintained an A+ average at the end of her first semester. She has also received recognition as a musician.



**Cynthia Weir**

**Cynthia Weir**—A versatile individual, she was the most valuable player on her high school team at Dartmouth High. Also a paddler, this native of Dartmouth has participated in the summer games, Canadian and North American championships. A second-year Phys Ed student, she is also competent in drama, having done well in the leading female role in "The Fantastics" while in high school.



**Nadine Wentzell**

**Nadine Wentzell**—Spent the past five seasons with the New Germany Rural High team before joining Dal last year to study pharmacy. In addition to volleyball, she is a top athlete in badminton and basketball. Academically she has received the Queen Elizabeth II Medal and the Duke of Edinburgh award. Nadine is also active as a swimming instructor.

# CAPSULE: Calendar, Notices, People and Places

## CALENDAR

### FEBRUARY

- 17 - **CME** - short course in dermatology; Tupper; for family physicians.  
 - **Science Fiction Horror Cinema** - 7 & 9 p.m., Room 2815, Life Sciences; "Frankenstein". Admission: \$1.50, children: \$1.  
 18 - **Marx Brothers/W.C. Fields** film festival series; 7 & 9 p.m., Room 2815, Life Sciences. "Six of a Kind", (1934) - Admission: \$1.50, children: \$1.  
 22 - **Lecture-discussion series, Children and Health**, 8 p.m., auditorium, Killam Hospital; Dr. G. Terris, dir., dental clinic, "Children's Dentistry".  
 23 - **Biology seminar**, 10:30 a.m., Room 2970, Life Sciences. Dr. E. Mills, oceanography, Dal., "Historical Oceanography".  
 24 - **Science Fiction Horror Cinema**, 7 & 9 p.m., Room 2815, Life Sciences. "Silent Running" (1972).  
 25 - **Marx Brothers/W.C. Fields** film festival series, 7 & 9 p.m., Room 2815, Life Sciences. "The Old-Fashioned Way" (1934).

### MARCH

- 1 - **Nursing students health presentations**, 12:30 noon, lobby, SUB. "Alcoholism".  
 - **Radiation Protection course**, 4-5 p.m., Theatre B, Tupper. Dr. Jim Clarke, VGH, "Diagnostic Radiology".  
 - **German dept. movie**, "Tanker", 8 p.m., MacMechan Auditorium, Killam Library. Free.  
 1 & 2 - **AMC seminar**, Inventory Management Control. Resource leader, G. Thomas Calkin; Holiday Inn, Robie St.  
 3 - **CME Spring Refresher Course** in emergency medicine; for family physicians. Tupper.  
 2 - **African Studies seminar**, 4:30 p.m., 1444 Seymour St.; Zbigniew Konczacki, "A chapter in the economic history of Somalia: the inter-war period".  
 - **Biology seminar**, 10:30 a.m., Room 2970, Life Sciences, Dr. P. Hertz, Harvard and Dalhousie, "Altitudinal variations in West Indian Anolis lizards".  
 3 - **Friday at Four**, Tupper; Scientific Basis of Medicine series; Dr. M.J. Hill, Bacterial Metabolism Research Lab., London, Eng., "Bacteria and the Etiology of Large Bowel Cancer".  
 - **Science Fiction Horror Cinema**, 7 & 9 p.m., Room 2815, Life Sciences, "Dracula" (1931).  
 - **Psychology lecture series on the Nature of Thought**, 3:30 p.m., Room 4258, Life Sciences; Daniel Osherson, "three conditions on conceptual naturalness".  
 6 - **Dal-King's Reading Club meeting**, 8 p.m., hostess - Mrs. C.B. Weld, speaker - Mrs. Jocelyn Raymond, "School Before School?".  
 6 or 7 - **African Studies seminar**, 12:30 p.m., 1444 Seymour St., Richard Lapchick, "Sport and politics: The case of South Africa".

## AT THE ARTS CENTRE

### Dalhousie Regional Film Theatre

8 pm, Rebecca Cohn Auditorium  
 March 5 - Lord of the Flies, (1963)

### Art Gallery

Feb. 12-28 - John Taylor: Dreams are Real  
 Christopher Pratt Studies

### Rebecca Cohn Auditorium

Feb. 22 - 8:30 pm - Carlo Bergonzi  
 March 1 - 8:30 pm - Eugene Fodor  
 4 - 8:30 pm - The Clancy Brothers  
 6 - 8:30 pm - The New York Dance Theatre  
 7 - 8:30 pm - Quartet Canada

### Music

Feb. 17 - Noon Hour recital, 12.45, foyer, Arts Centre: Jazz Band  
 22 - 8:30 pm - Dunn Theatre: Murphy's Law (free)  
 March 2 - 8:30 pm - Opera workshop, Dunn Theatre: Gianni Schicchi  
 4 - 8:30 pm - Opera workshop: Gianni Schicchi  
 5 - 3 pm - Cohn Auditorium: student recital with Lynn Stolda, piano and Phillippe Djokic, violin.

## ATHLETIC SCHEDULE

**WRESTLING** Coach: Mark Wannamaker  
 Feb. 17, 18 - AUA Championships at Dal.

**HOCKEY** Coach: Pierre Pagé  
 Feb. 18 - St. F.X. at Dal 2:00 p.m.  
 24-26 - AUA Semi-finals  
 Mar. 3-5 - AUA Finals

**SWIMMING** Coach: Nigel Kemp  
 Feb. 16-18 - AUA Championships at Dal

**BASKETBALL**  
**Men's** Coach: Al Yarr  
 Feb. 21 - Dal at St. F.X. 8:30 p.m.  
 25 - Acadia at Dal 8:00 p.m.  
 28 - SMU at Dal 8:30 p.m.  
 Mar. 3-5 - AUA Championships

**Women's** Coach: Carolyn Savoy  
 Feb. 18 - Univ. de Moncton at Dal 7:00 p.m.  
 21 - Dal at St. F.X. 6:30 p.m.  
 24-26 - AUA Championships

**VOLLEYBALL**  
**Men's** Coach: Neil MacVicar  
 Feb. 17-19 - AUA Championships at Univ. de Moncton

**Women's** Coach: Lois MacGregor  
 Feb. 17-19 - AUA Championships at Univ. de Moncton

### TOURNAMENTS

Feb. 17,18 - Gymnastics - UNB  
 23,25 - Men's Curling - UPEI  
 24,25 - Badminton - Univ. de Moncton  
 Mar. 9-11 - Women's Curling - Acadia

### IMMUNIZATIONS

Anyone planning overseas travel this summer should start their immunizations now. These can be given by appointment with Dr. G.S. Service at Dalhousie Health Service, 424-2171.

### DALHOUSIE REVIEW

The Dalhousie Review, a quarterly publication of the Dalhousie University Press Ltd., would like to inform all interested persons that subscriptions and single copies of the publication are available at the Dalhousie Review business office, on the fourth floor of the Killam Library.

### Nursery vacancies

The Centre for Child Care Studies, one of the nursery schools on campus, has openings both mornings and afternoons.

The vacancies are for children in the three- to five-year age group.

Anyone interested should contact Anna Keefe, director of the centre, at 424-6426 or at Room 1372 in the psychology wing of the Life Sciences Centre.

### SKATE-A-THON

Help-the-Help-Line Skate-a-thon  
 •Come out for a free skate.  
 •Watch the many competitions.  
 •Sponsor a skater per lap.  
 Funds will go to support the Help Line.  
 It's all happening at the Dalhousie Rink, 2-5 p.m., Feb. 26.

### \$3,125 Pharmacy Award

C.D. Dickson, a pharmacist from Newcastle, N.B., has made a gift of \$3,125 to Dalhousie University in memory of his son, Robert C. Dickson, who graduated from the Maritime College of Pharmacy in 1953.

Known as the Robert C. Dickson Memorial Award, it will go to a student from New Brunswick who has shown academic achievement, participation in student activities at the college, and is in financial need.

In past years Mr. Dickson contributed an annual sum for the award. But beginning in 1979 money for the award will be from the interest earned on the investment.

There have been 10 recipients since the award was initiated in 1968. It will be administered by the College of Pharmacy and the New Brunswick Pharmaceutical Society.

The first edition of

10/1/78

### SKYLIGHT

a publication of literary arts in the maritimes,

is looking for submissions of poetry, short stories,

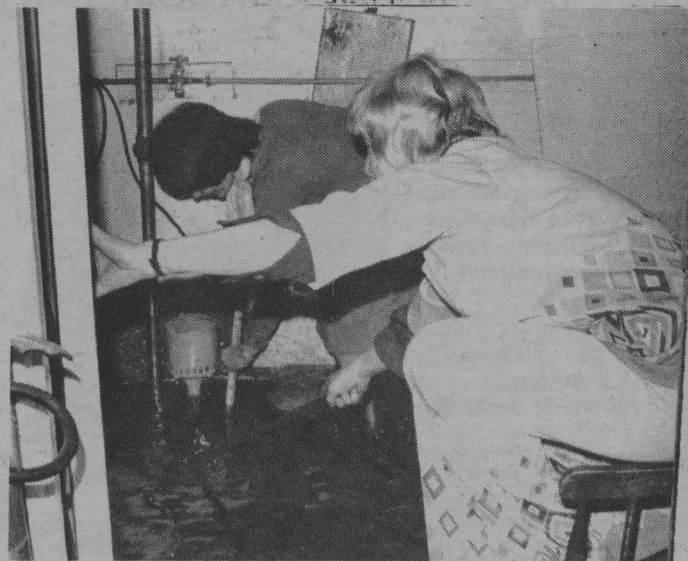
and graphics. Publication will be in March. Sub-

missions should be directed to Scott Vaughan and

Sheena Masson c/o the dalhousie gazette,

SUB, Dalhousie Univ., Halifax, NS,

B3H 4J2.



Information and public relations officer Judith Campbell [the brunette in the wet] shows her versatility by poking around aimlessly for a drain to let the flood water out of the basement of the Old Law Building, which houses the Information Office [in the basement] and the Faculty Club. Club manager Jeanette Busk directs operations, equally fruitlessly. The flood, a couple of weeks ago, was soon cleaned up by maintenance experts.

## PEOPLE

Mrs. Faith DeWolfe, deputy registrar, has been elected president of the Atlantic Association of Registrars.

Dr. W.D. Courrier, assistant registrar, attended the meeting of the Canadian Bureau of International Education in Toronto last month.

Dr. W. Cantwell Smith, chairman of religion, will deliver two lectures as the Walker-Ames annual visiting professor, at the University of Washington, Seattle, next week.

A recent guest of the religion department was Y.V. Gankovskil from the Academy of Sciences of the U.S.S.R. He is on a general tour of Canada as part of a cultural exchange sponsored by Canada Council.

"A Puckish Look at Hockey in Canada" is the name of an article by Dr. Tom Sinclair-Faulkner of the religion department published in the recent issue of Religion and Culture in Canada.

Dr. C. O'Brien and Prof. C.G. Gifford participated in a national consultation with the Canadian Association of Schools of Social Work in Toronto, last month.

Dr. Malcolm Peat, director of the program in physiotherapy at the University of Western Ontario, will be on campus visiting the School of Physiotherapy from March 6-8. He will give a paper on "Kinesiology Research in Physiotherapy", on March 6, 12 noon in Theatre D, Tupper Link. Public welcome.

Dr. Norman Pereira left Feb. 2 to take the nine students, who will be spending the next four months studying at the Pushkin Institute in Moscow as part of the Dalhousie-organized Russian Studies Program. The Program is now on a firm foundation as an agreement was signed by the Canadian-Russian governments. Dr. Pereira will return to Canada in three weeks.

## Canadian Studies Fellowship in U.K.

The AUCC has announced the fifth Canadian Studies Fellowship program in the United Kingdom.

Purposes of the program range from lecturing in the Canadian Studies field to aiding non-university organizations interested in furthering exchanges between the two countries.

The successful candidate for 1978-79 will be a resident at the University of Sussex for one term.

Applications are invited from candidates in Canadian history, international relations, political science and sociology.

Further information on the fellowship is available from Mrs. Gail Larose in the AUCC office in Ottawa.

## A BUSY SUMMER

A busy summer is in store for the Reservation Co-ordinator at Dalhousie as the following planned conferences and meetings will show:

Department of Music—Voice master class, Apr. 30 - May 2;  
 Atlantic Prov. Library Assoc. Meeting, May 4-7;  
 Atlantic Prov. Assoc. of C.A.s, May 15 - July 30;  
 Student Exchange Program—Faculty of Law, May 20 - July 8;  
 Department of Oceanography—Squid Biology Workshop, May 24-26;  
 Brookhaven Public School Tour, May 26-28;  
 The Atlantic Regional Meeting of the Kinsmen Club, May 31 - June 4;  
 Genetics Society of Canada Conference, June 13-16;  
 Department of Oceanography—The Continent-Ocean, June 18-22;  
 Department of Mathematics Seminar, June 23-24;  
 Canadian Pediatrics Society Meeting, June 24-29;  
 Ballet Teachers of the Atlantic Provinces Workshop, July 17-20;  
 Canadian Barristers Convention, Aug. 27-31.

## SLEIGH RIDE

The Alliance Francaise will sponsor (with orchestra). Members: \$7/single, \$12/couple. Non-members: \$8.50/single, \$15/couple. For more details, please call 477-0220.