



'Flying Start' compensatory program underway



Merry-go-round puzzles fit together only if the children take turns in placing their pieces. They learn to cooperate in completing a task, and learn to distinguish differences between pictures.



Mail boxes provide a self-correcting method of learning to discriminate between letters.

Every week, two groups of five-year-olds invade the sheltered territory of scientific academe — The Physical Sciences building. The children, accompanied by their mothers, are participating in the "Flying Start Compensatory Program" at the Centre for Educational Disabilities.

The Centre itself occupies five rooms in a basement hallway, where children's voices wafting through the air are now as commonplace as graduate students discussing nuclear physics. The perpetual motion machines (otherwise known as children) have plenty to keep them occupied for their hour-and-a-half sessions. Seated at pint-sized tables, the children engage in a variety of learning activities.

Intended for five-year-olds who have demonstrated learning difficulties, the Flying Start program was developed by Dr. D. H. Stott, Chairman of the Centre and Professor of Psychology. The program is based on the still not generally accepted principle that inability to learn may stem chiefly from behaviour handicaps, not from a lack of intelligence (i.e. a low I.Q.).

Two common behaviour handicaps are exemplified in the "unforthcoming" child and the "inconsequential" child. The former is so timid that learning causes him real anxiety, but he soon discovers that if he doesn't do a task, someone else will do it for him. He takes refuge in the facade of dullness. The inconsequential child, on the other hand, reacts impulsively — he short-circuits his intelligence by guessing, and then compensates for his errors by clown-

ing, disrupting classes and being a general nuisance. He shies away from any complete task (such as reading) that requires thinking. These behaviour patterns may be clearly established as early as kindergarten.

"Flying Start" seeks to correct maladjustments of behaviour at an early age, before they become serious handicaps. It is a pre-reading program incorporating a series of learning materials, developed by Dr. Stott over several years. Combining psychological and linguistic principles, the materials help children develop good learning strategies through a series of absorbing games. Later games in the series teach the phonic basis of reading.

Before any learning can take place, however, the children must want to learn. They must develop confidence in their ability to succeed. Children with learning problems lack this confidence because they're used to failing. "Flying Start" begins with very simple activities. As the children succeed at these, they gain enough confidence to successfully handle increasingly difficult tasks.

Each activity encourages a certain learning strategy, with immediate rewards for correct responses. The child soon learns that well-thought-out responses get results; guessing or not responding gets no results.

The ingeniously designed materials combine letters with pictures and symbols in such a way that they're self-correcting. Two children can carry on without supervision. Not only does this free the teacher for other work, it removes the learning activity from the standard classroom format, against which children

have already rebelled. Without the inhibiting presence of an adult, the activity becomes a game, and social motivation further encourages learning.

The pilot Flying Start program involved a random sample of 5-year-old Guelph children and will soon terminate. Forty children, who have been referred to the Centre by their schools for learning problems, will begin the second Flying Start program this month.

Dr. Stott and third and fourth year psychology students ran the pilot program, while mothers and volunteers from the community provided invaluable assistance in working directly with the children and preparing the learning materials.

In terms of the University of Guelph, the Centre's raison d'être is as a research facility where short-run feedback can indicate the effectiveness of new approaches to learning. It serves as an applied psychology laboratory for a course in "Maladjustment and Learning Failures," providing for many students their first opportunity to work directly with children. The experience has prompted many of them to continue work in the field of learning, and several hope to pursue graduate research projects directly related to programs at the Centre.

Dr. Stott calls the practice of education a vast undeveloped area of applied psychology. This Centre equips University of Guelph psychologists to contribute to the field of learning in a scientific way, and to challenge the age-old practices of teaching.

Twenty universities join to study marine sciences

The Huntsman Marine Laboratory, St. Andrews, N.B., will be officially opened on August 24. The research facilities of the laboratory are already in operation, however, points out Professor Keith Ronald, Zoology, who is Chairman of the Board of Directors.

Four universities already have given courses in the marine sciences at St. Andrews, and several more are planned for this summer. Programs of the HML will be offered in both French and English, reflecting the bilingual nature of the membership.

Of interest to the general public is the fact that on May 15, HML will open a Marine Aquarium-Museum displaying a wide variety of aquatic forms, including marine mammals. Through this aquarium-museum the Huntsman Marine Laboratory hopes to keep the public in touch with important research programs conducted at HML as well as those at the adjacent laboratories of the Fisheries Research Board of Canada.

The HML programs will include environmental quality studies, particularly pollution; Atlantic salmon research; and marine geology studies. The HML facilities include laboratories, holding areas for freshwater and saltwater animals, and residences.

The laboratory is operated by a consortium of 20 Canadian universities from five provinces from Ontario eastward. They have joined forces in this unique endeavour to do teaching and research in the marine sciences on a property leased from the Fisheries Research Board of Canada's Biological Station at St. Andrews, New Brunswick. Nine of the universities are from Ontario, three from Quebec, and eight from the Atlantic provinces. They



Members of the Board of Directors of the Huntsman Marine Laboratory examining development plans. Seated, left to right, Dr. M. J. Dunbar, McGill University; Dr. K. Ronald, University of Guelph (President and Chairman, HML Board). Back row, Professor D. C. Arnold, Mount Allison University; Dr. J. M. Anderson, Biological Station, St. Andrews; and Mr. C. C. Ferguson, University of Guelph. Missing from picture: Professor G. Citarella, University of Moncton, and Dr. F. A. Aldrich, Memorial University of Newfoundland.

include: Memorial University of Newfoundland, Acadia, Dalhousie, Mount Allison, University of New Brunswick, Moncton, St. Andrews Biological Station of the Fisheries

Research Board of Canada, Saint Mary's, Laval, McGill, Montreal, Brock, Guelph, Ottawa, Toronto, Trent, Waterloo, Waterloo-Lutheran, Western Ontario, and York.

College Women's Club dance



The 1970-71 executive of the College Women's Club was elected at a recent meeting of the club. Shown from left: Mrs. W. M. Braithwaite, corresponding secretary; Mrs. R. D. Davis, treasurer; Mrs. C. A. V. Barker, president; and Mrs. J. B. Stone, recording secretary

The annual Spring Party sponsored by the College Women's Club is being held on April 25 in Macdonald Hall.

The gracious charm of this building will create a pleasant atmosphere for this event which has grown in popularity over the years.

The tickets are \$5 per person and are available for the first time through the new central box office, Room 11 of the Arts building. They should be purchased immediately as seating accommodation for dinner is limited to 250.

Dr. John Oughton and Dr. W. E. Heming, recently retired faculty of the Department of Zoology will be honoured during the evening.

Mrs. R. Barrell is general chairman of the dance this year.

The News Bulletin is published by the Department of Information and edited by Mrs. Betty Keeling. Copy for the next edition must reach the editor Room 361, McLaughlin Library, not later than noon Friday, April 24, 1970.

REPORT FROM SENATE

April 14, 1970 Meeting

University of Guelph senators got a good understanding of the popular student tactic "confrontation without compromise" at the senate meeting last week.

A dozen visiting students, most of them majoring in sociology literally outshouted Senate members and forced the meeting to adjourn following the sound defeat of a motion to discuss the senate executive committee's handling of the case of L. E. Evans, Department of Sociology.

The meeting, which began at 8 p.m., adjourned shortly after 9 p.m. and was marked by consistent heckling, jeering, catcalling, arguing and insults on the part of some visitors in the gallery.

Shortly after the visitors commenced their clamor, acting Senate Chairman, Dr. B. C. Matthews, Vice-President, Academic, declared a half-hour recess. When Senate reconvened and the vote to discuss the Evans case under new business at the end of the agenda was defeated, the uproar once again ensued with the students drowning out any attempt to proceed with regular business and bringing out a motion to adjourn from a Senator.

The students moved early in the meeting to make their wishes known when Nicholas Hall, a fourth-semester BA student, stood "on a point of order" to question why there was no report from the senate executive committee.

Mr. Hall indicated that the student group

had knowledge the case of Miss Evans had been discussed at the April 17 executive meeting and maintained that under Senate bylaws every committee had to report at every Senate meeting.

Prof. James Stevens, Physics, moved that the matter of the executive committee report be discussed at the end of the regular agenda but the students didn't seem to like his suggestion and kept up a steady barrage of criticism, demanding that the issue be raised immediately.

It was pointed out by Dr. D. A. Barnum, Veterinary Microbiology, there was a general understanding that for a committee to give a "no report" was the same as making an actual report. The protestors, however, refused to accept this explanation and kept taunting Senators.

Several students kept flourishing signs alleging that Dr. Matthews had phoned Miss Evans at her Toronto home and persuaded her not to appear at the meeting — a fact that was definitely not so.

Professor Eugene Benson, English argued that the students insisted Senate follow its bylaws and yet not only disregarded the by-law concerning speaking privileges for visitors but didn't observe general parliamentary procedures. His remarks were jeered.

Professor Keith Ronald, Zoology, told the demonstrators that their actions were going to force Senate to clear the gallery "and then you'll never be heard."

Dr. Matthews pointed out that at the executive committee meeting, the case of Prof. Evans "wasn't dealt with in any formal way." But this comment only aroused the students more and the Vice-President declared a 30-minute recess.

After the break, Dr. Stevens moved that the executive committee deliberations be discussed under new business and not later than 10:45 p.m. But it appeared that faculty attitudes had hardened towards the students' cause during the recess and there seemed to be little support for the motion.

Professor Willson Woodside, Political Studies and Prof. D. C. Masters, History, viewed the motion as "capitulation to outrageous pressure." Student Senator Gabriel Ankli supported the motion, however, noting that a number of people on campus were obviously concerned about the issue and if Senate refused to discuss it, there might be a feeling that "there's something fishy about the whole deal."

The motion, however, was defeated by a sizeable margin, whereupon, fresh jeering broke out and the students began reading in unison ten questions they requested Senate consider about the Evans case, drowning out Dean Dennis Howell who had begun reading the report of the board of undergraduate studies.

After seeing it was impossible to conduct normal business, Dr. Matthews accepted a motion of adjournment by Dr. Stanford Reid, History.

History has new chairman



From left: Dr. Margaret Evans, newly appointed chairman of the Department of History, Dr. W. Stanford Reid, retiring chairman, and Mrs. Reid at a social evening honouring Dr. Reid.

Dr. A. Margaret Evans, associate professor, and a faculty member at the University of Guelph since 1965, has been appointed chairman of the History Department.

Retiring as chairman is Dr. W. Stanford Reid, who has held the position since 1965 and continues as professor in the department.

Dr. Evans graduated in Honours English and History from the University of Western Ontario with first class honours, then took an

M.A. in history, and a Ph.D in history with a minor in English, at the University of Toronto. Besides receiving six different awards at Western, she attained such awards as the Alexander Mackenzie Fellowship in History, and a Canada Council pre-doctoral fellowship at the University of Toronto.

The positions she has held include administrative as well as academic posts. For instance, while professor of history and lecturer in English, at Waterloo University College from 1940 to 1945, she served concurrently as dean of women at the college. She has also been an extension lecturer at Western and reference librarian in charge of organizing a collection of government documents at Waterloo from 1959 to 1963. In 1965 she was appointed to the University of Guelph's history department as assistant professor.

Dr. Evans' publications include articles of former Ontario Premier Oliver Mowat, on whom she is now completing a book entitled: Oliver Mowat and Ontario, 1872- 1896: A Study in Political Success.

She has held positions in regional, Ontario and Canadian Home and School Association groups and has been vice-chairman of the Waterloo Public School Board, and president of the Waterloo University College Faculty Association.

Macdonald alumnae seminar

Miss Jeanne M. Lynch, Assistant Director of Communications, The Travellers Corporation, Hartford, Connecticut, will be the keynote speaker at the Macdonald Institute Alumnae seminar being held May 8 and 9.

The theme for this third annual seminar is The World We Live In, and Miss Lynch will give the Friday evening banquet address on the subject of Communications.

The Saturday, May 9 program opens with a challenging talk on The Role of the Home Economist in Today's Society by Miss Sally Henry, President of the Canadian Home Economics Association. Seminar groups will be held following her talk.

Dr. D. E. Elrick, Professor of Soil Science, will co-ordinate a panel discussion on Environmental Control on Saturday afternoon. A panel of experts on the subject of pollution will assist with the program. They include: Dr. J. B. Robinson, of the Department of Microbiology; Dr. R. Frank, Director of Interdepartmental Pesticide Laboratory; and Mr. W. R. Cale, an Environmental Quality Control expert.

Library News

BEETHOVEN BIBLIOGRAPHY

The members of the library staff have prepared this bibliography of Beethoven material in McLaughlin Library, in celebration of the 200th anniversary of the composer's birth and in support of the Guelph Spring Festival.

It might be noted that recordings, periodical articles and items marked Ref. may be used only in the McLaughlin Library.

Books

- | | |
|---|-------------------|
| Grace, Harvey | ML |
| Ludwig van Beethoven. London, K. Paul Trench, Trubner, 1927. | 410
B4G68 |
| Grove, Sir Goerge | MT |
| Beethoven and his nine symphonies. London, Novello, (pref. 1896). | 130
B43G8 |
| Grove, Sir George | Ref |
| Grove's Dictionary of music and musicians. 3 ed. edited by H. C. Colles. New York, Macmillan, 1949 (see article on Beethoven) | ML
100
G886 |
| Ludwig, Emil | CT |
| Three Titans. (1st American ed.) New York, G.P. Putnam, 1930 | 154
L85 |
| Rodman, Selden | ML |
| The heart of Beethoven. New York Shorewood Pub. Co. (1962) | 410
B4R53 |
| Rolland, Romain | ML |
| La vie de Beethoven (Paris) Hachette (c1927) | 410
B4R6 |
| Rudall, H. A. | ML |
| Beethoven. London. Sampson, (n.d.) | 410
B4R9 |
| Schindler, Anton Felix | ML |
| Beethoven as I knew him: a biography. London, Faber (c1966) | 410
B4S333 |
| Schlinder, Anton Felix | ML |
| The life of Beethoven. Mattapan, Mass., Gamut Music Co., 1966 | 410
B4S3413 |
| Sonneck, O. G. ed. | ML |
| Beethoven: impressions by his contemporaries. New York, Dover Publications, 1967. | 410
B4S6 |
| Sullivan, John William Navin | ML |
| Beethoven, London, J. Cape, 1932 | 410
B4S91 |
| Tovey, Sir Donald Francis | ML |
| Beethoven. London, Oxford University Press, 1964. | 410
B4T68 |
| Thayer, Alexander Wheelock | ML |
| Life of Beethoven. N. J. Princeton University Press, 1967 | 410
B4T33 |
| Tovey, Sir Donald Francis | MT |
| A companion to Beethoven's pianoforte sonatas (bar-to-bar analysis) London, Associated Board of the Royal Schools of Music | 145
B42T6 |
| Vaughan Williams, Ralph | ML |
| Some thoughts on Beethoven's choral symphony. London, Oxford University Press, 1959. | 60
V29 |

Periodical Articles:

- Beethoven with pink clouds: album cover art. D. S. Savier. il Sat R Lit 3l: 47-8 0 30 '48.
- Beethoven: the man who set music free. D. C. Peattie. por Reader's Digest 67: 119-23 S '55
- Beethoven and Arthur Schnabel. A. Chasins. il Sat R 39: 48-9 D 29 '56.
- New light on Beethoven's beloveds. P. Nettl. il Sat R 40: 35-Ap 27 '57.
- His 200th anniversary celebration is starting the Beethoven revolution; excerpts from lives of the great composers. H. C. Schonberg. il pors N Y Times Mag p 32-3- 0 19 '69.

Beethoven bookshelf. E. Forbes. por Sat R 53: 73 Ja 3l '70.

Recordings (Library has music and score)

Ludwig van Beethoven:

- Concerto for the piano — op. 15 no. 1 c major
op. 37 no. 3 c minor
op. 58 no. 4 g major
op. 73 no. 5 e/b major ("Emperor")

Overtures: Egmont, Fidelio

Mass: Missa Solemnis, op.123 d major

- String quartets — op. 18 no. 1 f major
op. 18 no. 4 c minor
op. 18 no. 5 a major

Symphonies: nos. 1 - 9

Beethoven Exhibition

The life of Beethoven will be presented in an exhibition of facsimiles of manuscripts, photographs and engravings. These 192 artifacts depict Beethoven's life from his birth and early days in Bonn, to his death in Vienna in 1827.

The exhibition entitled "Beethoven, The Man and His Time," was organized for the University of Guelph by Dr. Franz Grasberger, Director of the Music Department of the National Library of Austria. Dr. Grasberger has also prepared an extensive catalogue documenting the exhibit which has been translated into English by Eugene and Renate Benson.

It will open at the Guelph Spring Festival on May 3.

After the cross-country tour the exhibit will be permanently housed in the University of Guelph's McLaughlin Library.

For the Guelph Spring Festival, the exhibit will be augmented by four original autographs, including Beethoven's last lines, from the R. F. Kallir Collection in New York.

Dr. Eduard Schiller, the Austrian Ambassador to Canada, has graciously consented to officiate at the opening on Sunday, May 3.

PARKING NOTICE for FRIDAY, APRIL 24

Parking lot P. 23 will be reserved on the above date for visitors attending the meetings of the OAC Alumni and the Canadian Institute of Food Technologists.

Students receive NRC awards

University of Guelph graduate students have received a total of nearly \$230,000 in National Research Council scholarships, fellowships and other awards for the academic year 1970-71. These awards are part of the \$8.5 million awarded by NRC to 2,130 students across Canada.

Forty-six Guelph students received NRC post graduate scholarships, each with a value of \$3,600. Of this number, 17 awards were for renewal of post graduate studies begun under a previous award.

In addition, a postdoctorate fellowship has been awarded to a Guelph student. Murray W. Lankester has received the \$6,000 award for studies in Zoology. It is interesting to note that only 138 such awards were presented by NRC, and only 45 of these were for work in Canada.

W. C. Mertens who is presently employed in private industry, has received a \$6,000 post industrial experience research fellowship for studies in the Department of Food Science at Guelph.

Two Guelph students have received 1967 science scholarships valued at \$5,000 each.

The National Research Council post graduate awards are offered each year to assist students in undertaking graduate study and research leading to advanced degrees, and a limited number of postdoctorate fellowships for those wishing to add to their experience by specialized training. The scholarships and fellowships are open to men and women on equal terms and are awarded on the basis of high scholastic achievement and evidence of capacity to do research.

APPOINTMENT

Miss Rosemary A. Watkins has been appointed to the Catalogue Department of the Library as a senior cataloguer. Miss Watkins is a graduate of the University of Manitoba, and has recently completed an M.A. in Fine Arts at the University of British Columbia. She is also a graduate of the School of Library Science, University of Toronto.

HERCULES WANTED

Friar Bacon and Friar Bungay needs a Hercules. Marshall Matson, director of this early English romantic comedy which will be presented on May 21, 22, 23 in the Drama Workshop at the University of Guelph said that although Hercules has to carry three different people he only has to carry them one at a time. Those interested can contact the director at 3265 or 821-1312.

Tickets for *Friar Bacon and Friar Bungay* go on sale on May 1.

GRANTS

DEPARTMENT OF BIOMEDICAL SCIENCES

M. H. Fallding, Modification of epithelial structures by vitamin A, hormones and carcinogens, analysed in vitro. NRC (operating) — \$5,000...**Ruth Saison**, Histocompatibility typing of dogs and cats. MRC (operating) \$10,000 ... **P. K. Basrur**, Congenital anomalies in domestic animals (twinning and freemartinism in cattle). MRC (operating) — \$12,500 ... **P. K. Basrur**, Ultrastructural and isozyme studies on interspecific hybrids. NRC (operating) — \$9,000...**W. H. Boyd**,

Intermediate lobe materials as an erythropoietic stimulant. NRC (operating) — \$4,000...**H. D. Geissinger**, Modification of microfluorimeter. NRC (equipment) — \$5,001... **H. D. Geissinger**, (1) Pathophysiology of endocarditis and arthritis in swine; (2) Definition and quantitation of fluorochromes in cells. NRC (operating) — \$8,000...**James I. Raeside**, Reproductive endocrinology in the boar. Canada Department of Agriculture (operating) — \$3,400...**James I. Raeside**, Development and function of steroid biosynthesis in the fetal testes. MRC (operating) — \$7,350... **Ruth Saison**, (1) Isoenzymes of the reproductive organs of domestic animals and the role of immunological mechanisms as related to sterility problems; (2) Auto-immunity and hemolytic anemia. NRC (operating) — \$7,000...**R. W. C. Stevens**, Immune globulin allotypes of cattle and turkeys. NRC (operating) — \$7,500 ... **R. W. C. Stevens**, Medical genetics of the dog. MRC (operating) \$9,000.

MISCELLANEOUS DEPARTMENTS

Professor J. Pos, School of Engineering, has been awarded a grant of \$26,700 by the Air Management Branch, Ontario Department of Energy and Resources Management. The purpose of the grant is to assist with the Pilot Plant Study at Arkell on the Treatment of Agricultural Wastes...**Dr. J. M. Shute**, Extension Education, was awarded one of four research grants by the P D K Commission on International Relations in Education. Grant winners were selected from among 42 educators who submitted proposals. The title of the proposed study is, "International Content in Curricular Materials in Ontario Schools." Dr. Shute has been administrator for Canadian University Service Overseas in Ghana, Nigeria, and Sierra Leone. He is a member of the committee for the Centre for International Programs at University of Guelph. Dr. Shute is the first Canadian to receive the award. **The Department of Zoology** has received operating equipment grants and student scholarship support for the 1970 - 1971 period amounting to \$263,600 from the National Research Council. This support is related to the department's emphasis on the animal and its environment.



Technicians pose at end of short course.

Short course in Food Science

A three day Short Course, Food Texture and Its Measurement was conducted recently in the Department of Food Science in cooperation with the Canada Department of Agriculture.

Food texture and its relation to food quality and uniformity has been receiving increasing attention during the past few years. The development of new and improved methods of texture measurement has greatly contributed to this trend. Great interest is being shown by industry and research organizations in making the best possible use of these new tools and methods.

The short course was designed to make workers in this field familiar with the latest

techniques and instruments and show how these could be applied to various food products. Thirty-two men and women attended from technical colleges, universities and various major food industries located across Canada.

The course was given under the direction of Dr. John deMan, Chairman, Food Science, Mr. Peter Voisey, Head, Engineering Research Institute, CDA. Mr. M. Fukushima and Miss M. Tanaka, visiting scientists from Japan and Mr. P. L. Byrne and Mr. M. Kloek from Engineering Research Services assisted with the laboratory sessions.

Post-secondary education commission

The Commission on Post-Secondary Education in Ontario was set up last year by the Cabinet. Its job is to advise the Government of Ontario through the Honourable William Davis, Minister of Education and Minister of University Affairs, on long term plans for post-secondary education in the province.

The Commission consists of thirteen members representing a broad cross-section of Ontario society. Can a small group adequately reflect the thoughts and interests of the 200,000 now involved full-time as students, staff and faculty, in post-secondary education, without the help of Ontarians?

The Commission wants to communicate, both with existing institutions and with people whose needs are not now served by such institutions. In order to obtain meaningful response, it must share its deliberations with the greatest number of people.

According to the terms of reference "It shall be the responsibility of the Commission to consider, in the light of present provisions for university and other post-secondary education in Ontario, the pattern necessary to ensure the further effective development of post-secondary education in the Province during the period to 1980, and in general terms to 1990, and make recommendations thereon."

The Commissioners seek participation from private citizens, organizations and institutions. The members hope to involve interested persons in the study and discussion of the problems of post-secondary education in Ontario. They will welcome contributions to the work by suggesting questions, problems, solutions, or alternatives, whether verbally or by correspondence.

Chairman for the Commission is Dr. D. T. Wright, Chairman of Ontario's Committee on University Affairs.

FACULTY ACTIVITIES

Dr. D. H. Stott, Centre for Educational Disabilities, addressed Special Education teachers at the annual convention of the Ontario Educational Association for two successive sessions under the titles: Teaching Reading to Older Retarded Boys and Girls; Training and Learning Skills for Younger Retarded Children.

Dr. I. L. Nonnecke, Horticultural Science, **Professor Harold Goble**, **Dr. Freeman McEwan**, Zoology, and **Professor C. B. Kelly**, Botany were in Stratford to participate in the Turnip Growers' Education Day.

Mr. Bill Connell, ODAF, and **Dr. R. Campbell**, Continuing Education, both members of the Guelph Barbershoppers, participated in the recent Harmony Week held to publicize the work of the singers. The Guelph Chapter contributed over \$500 last year to aid work with children having speech deficiencies.

Dr. B. L. Raktoc, Mathematics and Statistics has been awarded a 3 year N.R.C. grant for the amount of \$15,600 (\$5,200 yearly) to carry out research on Mixed lattice designs and fractional replication of symmetrical and asymmetrical factorials.

Dr. P. K. Basrur, Department of Biomedical Sciences was at the Laurentian University, Department of Biology to give an invited seminar on Reproductive Anomalies in Animals and Man.

Dr. Michael Cocivera, Chemistry, spoke at the April meeting of the New York Academy of Sciences, New York City.

Collecting potsherds and other pottery from archeological excavations in Britain, **Dr. Denis Stott**, Psychology, has become quite knowledgeable about 18th Century English pottery. He recently identified and dated pieces from a Highlands site and reported his findings to the Society of Antiquaries of Scotland.

Professor Norman Pearson, Chairman, Centre for Resources Development, was keynote speaker at a one-day seminar on regional government organized by the City of Owen Sound and Grey County, attended by 200 persons. He spoke on the topic, "A Regional Government Plan for the Area."

Dr. J. E. Callagan, Psychology, has been invited by the Minister of Transport for Ontario, Honourable Irwin Haskett, to participate in the Seminar on the Medical Aspects of Safe Driving to be held in Toronto.

Dr. D. C. Jordan, Microbiology, was a recent invited speaker at a symposium sponsored by the Ottawa Biochemical and Biological Society. The symposium dealt with the control of microbial systems. Dr. Jordan spoke on the action of certain antibiotics which inhibit the synthesis of bacterial cell walls.

Professor Philip J. Spensley, Drama, adjudicated the Ottawa Area Collegiate Drama Festival sponsored by Simpson Sears in Ottawa. Thirteen productions were vying to represent Ontario in the National Collegiate Competition to be held at the University of Waterloo later this spring.

Mr. J. Terhune, Zoology, will leave for a two week voyage in a chartered deep sea trawler in mid-April. He will attempt to track seals with radiotelemetric systems. This is part of a major migration study under way in the Department of Zoology.

Dr. J. F. Cote, and **Dr. R. A. Willoughby**, Clinical Studies and **Dr. F. H. S. Newbould**, Veterinary Microbiology and Immunology were invited to present lectures and discussions at the University of Pennsylvania Continuing Education Program. The topics of the respective papers were milk fever and ketosis, diarrhea in calves and immunology, and staphylococcal mastitis and control measures.

Dr. D. M. Irvine, Food Science, presented a paper entitled "1970 Italian Cheese Production in Canada" at the 7th Annual Marschall Invitational Italian Cheese Seminar in Madison, Wisconsin.

Mrs. Margaret Beckman, Deputy Chief Librarian, addressed the Annual Conference of the Library Association of the City University of New York. The title of her paper was: Library facilities to meet changing needs of students.

Dr. Gianni Bartocci, Languages, has had a skit accepted by the Television Branch of the Ontario Department of Education. He has been asked to write twelve more.

Professor Frank Theakston, Engineering, on leave of absence with Dofasco Ltd., Hamilton attended The Snow Control Symposium held at the United States Army Cold Regions Laboratory, Hanover, New Hampshire. Professor Theakston presented a paper on Snow Control on Roads and Airfields using Modelling Techniques.

Dr. Philip J. Spensley, Drama, participated in three workshops sponsored by the Canadian Child and Youth Drama Association at the National Arts Centre, Ottawa.

Dr. L. V. Busch, Botany, attended a meeting of the Western Ontario Fruit and Vegetable Growers Association in London, Ontario. Dr. Busch led a discussion of Disease Problems in Potatoes.

Professor John B. Black, Political Studies attended the recent annual meeting of the Canadian Association of Broadcasters in Ottawa. He acted as a group leader in discussions on the role of Canadian broadcasting in the 1970's.

Professor William E. Coates, Landscape Architecture, presented a paper, "Surface Mining Rehabilitation in Ontario - Legislation and Implementation," to the Sixth Annual Forum on Geology of Industrial Minerals at the University of Michigan, Ann Arbor, Michigan, and sponsored jointly by the Michigan Geological Survey, The University of Michigan and the University of Toledo.

Professor K. Ronald, **Dr. J. R. Geraci** and **Mr. J. Terhune**, Zoology, have returned from the annual seal hunt in the Gulf of St. Lawrence. Seven new pups and one adult are now in captivity in the Department of Zoology. Field collections were made of histological samples and blood. Underwater recordings were made throughout the total pupping and breeding season. The seals are now being used by 25 workers, graduate students, faculty and staff in three of the four colleges of the University.

Dr. C. M. Switzer, Botany participated in the R.C.G.A. National Turf Grass Conference held in Toronto recently.

Dr. W. H. Boyd, Biomedical Sciences, has received an NRC grant to continue his studies on the relationship of the pituitary gland to blood forming organs.

Professor J. Coxe, Fine Art, lectured on Romanticism and Classicism in the time of Beethoven as the first of the Learning for Living Series on Beethoven and Romanticism, in the Continuing Education Series on the life and times of Beethoven.

Professor J. B. Black and **Professor H. Wiseman**, Political Studies, attended a conference of the International Studies Association in Pittsburgh, Pa.

Dr. John Melby, Political Studies, attended the meeting of the Canadian Society for Asian Studies in Vancouver. Dr. Melby has been the interim chairman of the C.S.A.S. since the Society was organized at the University of Guelph in the spring of 1969. The new chairman is Professor W. L. Holland, University of British Columbia.

Dr. John Melby, Political Studies participated in two panels, one concerning American attitudes toward the Civil War in China, 1945-49 and the other organized by the Committee of Concerned Asian Students on Academic Involvement - The Legacy of the Fifties at the meeting of the Association for Asian Studies in San Francisco.

Dr. D. J. Blackburn, Extension Education, was an invited speaker at the National Symposium on the Interpretation of Science and History on the subject of Changing Attitudes in Agriculture at the Wye Marsh Wildlife Centre, Midland.

Professor Norman Pearson, Chairman of the Centre for Resources Development, attended the first annual meeting of the Canadian Institute on Pollution Control in Toronto and served as Chairman of a session on Human Ecology and Comprehensive Planning, speaking on Total Land Use Planning and the Ecological Base. Other speakers in the same session were Dr. Donald A. Chant, Chairman, Department of Zoology, University of Toronto, Mr. A. D. Fisher, Vice-President, The Steel Company of Canada, and Mrs. Margaret Campbell, former Controller of City of Toronto.

Dr. H. Tiessen, Horticultural Science attended the 18th International Horticultural Congress in Israel, and the Plant Nutrition Meeting preceding the Congress. He presented a paper to Congress entitled Influence of Paper Mulches on Flowering and Fruiting of Tomatoes.

Professor B. J. E. Teskey, Horticultural Science, attended a meeting sponsored by Uniroyal at Bowmanville re: Alar on Apple and Cherry.

Professor A. Peepre, School of Physical Education directed a three day clinic workshop at the 12,000 acre Outdoor Education Laboratory at Southern Illinois University. The theme was Orienteering — Land Navigation with Map and Compass. Participants from many parts of the U.S. were given instructions on how to use and implement this new fast growing outdoor activity in Outdoor Education and Physical Education curriculums.

Dr. G. Hofstra, Dr. D. W. Smith and several students from the Department of Botany attended the Biological Productivity Conference at Albany, New York.

PUBLICATIONS

R. W. Irwin, 1970. Soil water characteristics of some Ontario Peats. 3rd Int. Peat Congress 219-223.

R. F. German, and J. H. A. Lee, 1969. Grain separation on an oscillating sieve as affected by air volume and frequency. Trans. A.S.A.E. 12: 883-885.

J. H. A. Lee and R. G. Winfield, 1969. Influence of oscillating frequency on separation of wheat on a sieve in an airstream. Trans. A.S.A.E. 12: 886-888.

D. W. Rumble and J. H. A. Lee, 1970. Aerodynamic separation in a combine shoe. Trans. A.S.A.E. 13: 6 - 8.

P. W. Voisey, Engineering Research Service, Canada Department of Agriculture, Ottawa and J. M. deMan, Food Science, A Recording Food Grinder, Can. Inst. Food Technol. J. 3: 14 - 18 (1970).

Philip Spensley, Drama, edited the Director's Notes for The Merchant of Venice Festival Publications, Toronto, 1970, John Stevens, University of Toronto, is General Editor of the volume. The book visualizes the 1970 Stratford production directed by Jean Gascon.

N. V. Vallyathan and J. C. George, 1969. Effect of exercise on lipid levels in the pigeon. Arch. internat. Physiol. Biochim. 77: 863-868. (Zoology).

J. G. Penney and E. D. Bailey, 1970. Comparison of the energy requirements of fledgling black ducks and American coots. J. Wildl. Mgmt., 34: 105-114.

D. C. Mullin, Drama, The Development of the Playhouse: A survey of Theatre Architecture from the Renaissance to the Present. University of California Press, Berkeley, 1970.

D. C. Mullin, Myth, Religion, and Meaning in Greek Tragedy, Quarterly Journal of Speech, LVI, 1 (February, 1970), pp. 54-60.

D. M. Korte, Verse Satire and Smollett's, Humphry Clinker. Studies in Scottish Literature.

J. C. Sutton and P. M. Williams. 1970. Comparison of extracellular polysaccharide of *Xanthomonas compestris* from culture and from infected cabbage leaves. Can. J. Bot. 48: 645-652.

D. W. Smith, 1970. Concentrations of soil nutrients before and after fire. Can. J. Soil Science. 50(1): 17 - 29.

J. C. Sutton. 1970. Yellow Leaf blight disease of corn. ODAF Inf. Leaflet. Agdex III/632.

C. M. Switzer and G. R. Stephenson, 1970. Clarification of the 2, 4, 5-T controversy. Agdex 648.

D. A. L. Auld, Economics. Fiscal Policy Performance in Canada, 1957 - 1967, Public Finance, Vol. XXIV, No. 3.

F. Alexander, P. Eyre, K. Head, and J. Sanford. Effects of anaphylaxis and chemical histamine liberators in sheep. J. Comp. Path. 80: 19-30, 1970.

B. J. E. Teskey, and D. S. Bhar. Some effects of 2-chloroethylphosphonic acid (Ethrel) on fruit abscission of *Malus domestica* and *Solanum pseudocapsicum*. Proc. Can. Soc. Hort. Sci. Vol. 8, 1969.

B. L. Walker. The fatty acids of adrenal lipids from essential fatty acid-deficient rats. J. Nutrition 100: 355-360 (1970).

Henrick J. Malik. Distributions of Product Statistics from a Pareto Population. *Metrika* Vol. 15 (1970) 19-22.

ONTARIO REGIONAL CONFERENCE

Canadian Hunger Foundation Program

TUESDAY, APRIL 28, 1970

- 8:45 a.m. **Registration**
Main Foyer, Physical Sciences
- 9:15 a.m. **Plenary Session**
. Welcome by Dr. Howard L. Trueman, Executive Director, Canadian Hunger Foundation, and Dr. W. C. Winegard, President University of Guelph.
. Briefing: Blue line of Canadian Hunger Conference.
Documents: (a) Ensuring Basic Food Supplies (b) Improving Human Nutrition (c) Agriculture's Importance in Developing Economies
- 10:30 a.m. **Seminars (concurrent sessions)**
(a) Ensuring Basic Food Supplies Rooms 303,304,305, Arts.
(b) Improving Human Nutrition Rooms 306, 307, 308 Arts
(c) Agriculture's Importance in Developing Economies, Room 309, 310, 311, Arts
- 12:00 **Lunch** — Phys. Ed. Cafeteria
- 1:30 p.m. **Seminars (concurrent sessions)**
(a) Ensuring Basic Food Supplies Rooms 303, 304, 305, Arts
(b) Improving Human Nutrition Rooms 306, 307, 308 Arts
(c) Agriculture's Importance in Developing Economies, Rooms 309, 310, 311
- 3:00 p.m. **Seminars (concurrent sessions)**
(a) Ensuring Basic Food Supplies Rooms 303, 304, 305 Arts
(b) Improving Human Nutrition Rooms 306, 307, 308, Arts
(c) Agriculture's Importance in Developing Economies Room 309, 310, 311, Arts
- 5:00 p.m. **Plenary Session**
Summary and Conclusion of Seminar Sessions — Room 105 Phy. Sc.
- 6:30 p.m. **Sherry Reception and Dinner**
Physical Education Building

WEDNESDAY, APRIL 29, 1970

- 9:00 a.m. **Plenary Session**
"What we can do best." — Room 105, Phys. Sc.
- 9:45 a.m. **Seminars (concurrent sessions)**
"What we can do best."
Rooms 303 - 311 inclusive, Arts
- 11:30 a.m. **Plenary Session**
Conclusions of morning seminars from the point of view of business professional and voluntary groups. Room 105, Phys. Sc.
- 12:30 p.m. **Lunch** — Phys. Ed. Cafeteria
- 2:00 p.m. **Plenary Session**
Panel — "A Regional Viewpoint" to end as a question and answer period, Room 205, Phys.Sc.

NEXT WEEK AT GUELPH

THURSDAY, APRIL 23

- Languages** REGISTRATION FOR LEARNING FOR LIVING SERIES, SPRING SEMESTER — 7 p.m., Room 026, Arts.
- Seminar** BIOSYNTHESIS OF VITAMIN K AND RELATED NATURALLY-OCCURRING NAPHTHOQUINONES by Dr. Ronald Bentley, Department of Biochemistry, University of Pittsburgh. 4:10 p.m., Room 260, Chem. Micro.

FRIDAY, APRIL 24

- Party** FACULTY CLUB ENGLISH NIGHT — Cancelled.
- Workshops** LEARNING FOR LIVING SERIES — GEOGRAPHIC FIELD STUDIES WORKSHOP: THE GUELPH REGION. Deadline for Registration in Room 041, Arts. Fee — \$20 including transportation, maps and handouts.
- Meeting** CANADIAN INSTITUTE OF FOOD TECHNOLOGISTS, Room 200, Chem-Micro. Contact: Dr. D. Irvine, Food Science.

SATURDAY, April 25

- Party** COLLEGE WOMEN'S CLUB, annual Spring Party. Macdonald Hall. 6:30 p.m. \$5 per person. Tickets available Central Box Office, Room 11, Arts.

SUNDAY, APRIL 26

- Worship** ANGLICAN-UNITED HOLY EUCHARIST & R. C. FOLK MASSES — no services.

MONDAY, APRIL 27

- Seminar** SPEAKER: DR. DAVID T. ARMSTRONG, Medical College, University of Western Ontario. 4 p.m. Room 156, An. Sc.

TUESDAY, APRIL 28

- Senate Conference** UNIVERSITY OF GUELPH SENATE meeting — Phys. Sc. II3, 8 p.m.
- THE HUNGRY WORLD — HOW WE CAN HELP. Registration commences at 8:45 a.m. Main foyer Phys. Sc. Dr. W. C. Winegard will officially open the conference which continues April 29.

WEDNESDAY, APRIL 29

- Lecture** LEARNING FOR LIVING SERIES — BEETHOVEN AND ROMANTICISM. The Romantic Legacy by Prof. L. W. Abbott, History. Guelph Public Library. 8 p.m. Adm. 75 cents adults — 50 cents students.

THURSDAY, APRIL 30

- Workshop** RAPESEED MEAL AND OIL WORKSHOP FOR FEED MANUFACTURERS. Contact: Dr. S. Slinger, Nutrition (See program in this issue of News Bulletin).

Dr. Hung visits USSR

Professor F. Hung, Geography, has returned from his visit to Indonesia and U.S.S.R. to study the tea industry. Dr. Hung flew from Singapore to Djakarta (teeming population, 4.7 million), and then travelled to Bogor (formerly Buitenzorg) to work at the Research Institute for Estate Crops, the Agricultural University of Bogor, and to visit the tea estates in Puntjak, West Java.

He travelled to Bandung and Pengalengan during the Chinese New Year to visit the tea estates of P.N.P. XIII (State Enterprises Estates), accompanied by its Director-General, Mr. Kurnadi Sjarif-Iskandar, and was a guest of the famous Malabar Estate.

From Java Dr. Hung returned to Singapore, and from there flew to Moscow. After a short stay in the Soviet capital to visit the University of Moscow, and to finalize arrangements for his visit to the tea district in Georgia, he

flew to Sukhumi.

After a stop-over at the capital of Abkhaz A.S.S.R., he travelled by train and automobile to the tea district in Adjara A.S.S.R., where he was allowed to visit an ultra-modern State tea factory (one of seventy in Georgia) which manufactures caffeine from coarse tea leaves during the slack season; a State tea farm; and a large collective farm which has tea gardens.

He also paid a visit to the famed Soviet tea plant geneticist, Academician Ksenia Batkhadze who developed the famous "Georgia No. 1" (China-Assam hybrid) and "Georgia No. 2" (Assam-China hybrid) tea plants.

Before returning to Canada Dr. Hung also worked at the Austrian National Library at Vienna; the Royal Tropical Institute, Amsterdam; and the Tropical Products Institute, London, England.

RAPESEED WORKSHOP FOR FEED MANUFACTURERS

Thursday, April 30, 1970
Room 360

Animal Science-Nutrition Building

- 10:00 a.m. **Rapeseed Supplies in 1970-71**
Dr. B. Weinberg, Dept. of Industry, Trade and Commerce, Ottawa.
- 10:15 a.m. **Rapeseed Meal for Swine**
Discussion leaders — Dr. J. D. Bowland, Univ. of Alberta, Dr. H. S. Bayley, Univ. of Guelph.
- 11:15 a.m. **Rapeseed Meal for Ruminants**
Discussion leaders — Dr. J. M. Bell, Univ. of Saskatchewan, Dr. J. B. Stone, Univ. of Guelph.
- 1:45 p.m. **Rapeseed Meal for Poultry**
Discussion leaders — Dr. D. R. Clandinin, Univ. of Alberta, Dr. J. D. Summers and Dr. D. C. Hill, Univ. of Guelph.
- 2:45 p.m. **Rapeseed Oil for Livestock**
Discussion leaders — Dr. S. J. Slinger and Dr. H. S. Bayley, University of Guelph
- 3:30 p.m. **Computer Evaluation of Rapeseed Meal**
Discussion leaders — Mr. Stu Wilson, Monsanto Computerized Technology Dept. and Mr. Keith Schaefer, Martin Feed Mills, Elmira, Ontario.

FESTIVAL NEWS

The world premiere of Dr. Charles Wilson's String Quartet No. 2 being performed on May 11 by the Orford String Quartet will be recorded live for future presentation by the C.B.C. This concert which is part of the Guelph Spring Festival, will be presented at Harcourt Memorial United Church.

WALK — MILES FOR MILLIONS

Saturday, May 2, 1970
City Hall — 8:00 a.m.

PERSONALS

- For Sale — 3 bedroom stone house, near Exhibition Park. Mrs. McArthur — 822-5396.
- For Sale — Reel type self-propelled lawn mower. Less than half price. Ext. 2268 or 822-8628.
- For Sale — 3 bedroom split level house. 5 minutes from University. 822-3796.
- For Sale — '68 Ducati motorcycle. Ext. 3556 or 821-2157.
- For Sale — Cottage on Berford Lake. 824-5865.
- For Rent — 1 bedroom self contained apt. 824-5865.
- Wanted — a twin's stroller, Ext. 3420 or 821-5136.
- Wanted 1 bedroom furnished or unfurnished apt. University area for Aug. 31 — 821-7570 or 824-2590.
- Wanted to buy — girl's bicycle — 20" or 22" — phone — 822-5435 after 5:30 p.m.
- Dining Room table with chairs, dressing tables, beds, desks, typewriter for sale — 821-5152.
- For Rent — in Hespeler, 3 bedroom apt. in a duplex, electric heat, laundry facilities available \$155/mo. includes heat and utilities. Phone 658-4995 or Ext. 2501.