

Remote access terminals installed

Library service at your doorstep

On-going development of the Library's automated services, and co-operation with the Institute of Computer Science, has made possible remote access to the Library inquiry system from any point on campus.

Until now the data base of circulating materials has been available only to terminals located in the Library and directly connected to the Library's mini-computer. With the development and distribution of the Gandalf campus computer network, however, it has become possible to give users access to this data base from any 1200 baud (120 characters per second) terminal linked to the network. With the assistance of W.B. Riggs, associate director, Computer Operations, the Library has been assigned channel 71 on the network. This simple but important act has permitted the Library, at no additional cost, to expand its service beyond the normal geographic limits of McLaughlin Library and the Veterinary Science Division.

By setting the Gandalf LDS 125 "blue box" to 71 (it normally remains at channel 00 for access to the Amdahl) the enquirer is automatically connected to the Library service. Mrs. Ellen Pearson, assistant librarian, Information Services, has compared the channel to a stop on a bus route. "We're stop 71." Another analogy might be that of a radio or television station. The user turns on the equipment, selects the proper channel, presses the return

key, and the system takes over. All instructions are displayed.

At the present time, only four terminals can be accommodated simultaneously. For this reason, and in an effort to ensure equitable access to the system, a 15-minute time limit per "sign-on" has been established. Another time limit, an "automatic drop," signs-off any terminal which has not made contact with the mini-computer over a period of about two minutes. This automatic drop guards against the possibility of a user leaving the terminal for long periods in order to attend to other business, thus tying-up available communications space. All of these limitations will be open to constant review as the level of demand is determined.

While it is possible now to examine only book or Documentation Centre catalogues using the online enquiry system, other interactive programs are in the late planning and early implementation stages. One of these will put the entire card catalogue at the user's finger tips, giving greater access than is now possible. An extension of this program will permit the verification of items being considered for departmental selection. Under consideration for implementation at a later date is the Serials List, now available on microfiche.

For those people who have made use of the system as it has been available in the Library for the past 2 $\frac{1}{4}$ years, the new arrange-

ments will only offer more convenience. But for the neophyte the advantages are enormous. Not only will the system locate the material, if it is in the Library's collection, but it will give you all the instruction you may need for successful operation, in addition to the convenience factor.

Users' comments, criticisms and suggestions are essential to the success of this new venture, and may be offered to any of the following people: Larry Porter, Ext. 2121; Professor John Black, Ext. 2181; Dave Paterson, Ext. 3604 or George Loney, Ext. 3610. □

Spring is bursting out all over



Snowdrops and crocuses are up all over campus this week.

The best spot to see a variety of crocuses is at Parking Lot 31, south of the University Centre, according to Pat Tucker, Grounds.

Just west of the parking lot, behind a cedar planting, is a three year-old perennial border. Watch for *Crocus ancyrensis* and cultivars of *Crocus chrysanthus* such as "Snow Bunting" (white), "Cream Beauty" (cream), "Blue Boy" (blue) and "E.P. Bowles" (blue). These are early varieties and flower earlier than the Dutch hybrids. □



Roy Pella, Director of Personnel, tests the Library enquiry system using a remote access terminal. Observing the demonstration are: Charles Ferguson, Vice-President, Administration; Pat Robinson, Personnel and Kathy McLaughlin, systems division, Library.

Chemistry undergraduates will sample industrial work

When exams are over, many undergraduate chemistry and biochemistry students will step out of their University programs and directly into industrial laboratories for a summer work experience. One will head to Victoria, others to Cobourg and Montreal, where they will get involved in basic research, quality control, product development and analysis of everything from gelatine to radio nucleotides.

Some of these second or third year undergraduates have already spent one or more summers working in industry. They credit the experience with increasing their confidence, enhancing their interest in chemistry, and improving their efficiency in laboratory work.

Mark Lautens will do organic synthesis work at Xerox this summer, concentrating on organometallic compounds. Analyzing ore samples will occupy Jim Rosborough's time at Lakefield Research, a company that analyzes ore samples containing such metals as gold, silver, platinum and iron. The samples come from mining companies all over the world. From the analysis, the companies can decide whether mining would be feasible.

Chalk River Nuclear Laboratories provides summer work experience for a number of University undergraduates, among them, John Hullah. He expects to work in the analytical chemistry section, doing chromatographic analysis of radio nucleotides. Bryan Leece will return to the quality control laboratory at the Shell refinery in Montreal where he worked last summer. Speaking of his experience, he observes "You have to be efficient or you don't make it."

Brenda Rutherford and Dave Wicks will again work at General Foods in Cobourg. Brenda feels that the experience of researching information from the General Foods library has been particularly helpful in her University studies. Brenda spent last summer in product development while Dave was involved in basic

research into plant protein systems.

Craig Sibley's destination is the University of Victoria where he will do inorganic research with Dr. Ken Reimer who was on the Guelph faculty last year. Between bicycling, hiking, exploring the mountains and photographing every last inch of Vancouver Island, Craig expects to enjoy working in the research laboratory.

Opportunity knocks in Guelph for Laurie Beml who will work at Fiberglas Canada on York Road. She has worked in industrial labs before, but feels this will be quite a different experience because she will be developing binder compounds in the laboratory, then testing these products in the factory. She will work with chemists, engineers and workers in the plant.

After two summers in industrial research and quality control laboratories, Sue Melsness decided it was time for a change of pace. She is hoping to land a job as a waitress in Banff. Even if a job does not come through, she plans to head west and take her chances. "I wanted a job where I didn't have to think, for a change." She, however, looks forward to a career in research.

This summer experience rounds out the undergraduate program, exposing students to a different environment and approach to chemical research. The confidence gained sets these students apart from other undergraduates. As one explains, "I'm so used to working on my own I find it difficult to carry out assignments with a lab partner. After a summer working in a lab, I can plan things out, think about the theory behind the experiment and handle the various chemicals with the appropriate degree of caution. I used to be nervous, but now I feel much more at ease in the lab."

How did the Guelph undergraduates land their summer jobs? Most just applied or wrote letters. A few used contacts, and several are returning to jobs from previous summers. □

Computing seminars offered

A computer institute will be held on campus May 21 to May 23 to train people in specific occupations how to use computers most effectively. Two of the four seminars, sponsored by the Continuing Education Division of the University School for Continuing Education and Part-time Studies, are for those who have had little or no direct experience with computers.

"Programming for Managers" is intended for administrators who have decided that, in the long run, it is more convenient to learn how to program their own data. The three-day seminar outlines the rudiments of APL (A Programming Language) and provides direct experience in data storage, mathematical calculations and in writing and modifying APL programs.

"Statistical Computing in Agriculture" is designed mainly for research workers in agriculture and veterinary medicine who have formerly relied on statisticians and programmers to provide their link with the computer. This two-day seminar uses the case study approach and explores a variety of topics. Recent developments in computer technology and their application to research problems, data collection techniques using automated methods, and statistical principles of analysis are included.

Two other seminars, "Managing the Data Resource" and "Auditing Computerized Systems," are for experienced computer programmers and analysts. □

Campus home base for Argo's training

The Toronto Argonaut football team of the Canadian Football League will hold its training camp on campus May 14 to June 10. This is the third consecutive year that the Argonauts have chosen Guelph as their summer training base.

Gary Nadelin of special services, Conference Office, expects between 100 and 150 players, coaches and front office staff during the early part of the camp. As cuts are made or players receive better offers by other teams, the number will dwindle to about 30 to 40 by June 10.

Close liaison is maintained between the Conference Office and the team management to ensure that everyone is accommodated comfortably and well fed. The players will be housed in Maritime Hall South.

During the last week of camp the team will hold a full-dress scrimmage in Alumni Stadium for fans. A tour and luncheon will also be arranged for the media. Details for both events have yet to be announced. □



Top students in chemistry were recently honored. Seated, left to right are Margaret Wilson, Whitby; Naomi Ecob, Willowdale, and Susan Bishop, Guelph. Standing, left to right, are Daryl Vanderburgh, Weston and Paul Woods, Weston; George Gillson, Owen Sound; Rob Schweitzer, Waterloo, and Robert Bradley, Sudbury. Missing from the picture are Roger Mercer, Burlington, and Janet Pegrum, Ottawa.

Two students elected to Board of Governors

Patricia Cook, a sixth semester School of Hotel and Food Administration student, and Ellen Murray, a sixth semester College of Biological Science student, were recently elected by Guelph students to the Board of Governors. The student members will take office July 1 for a one-year term.

Ms. Cook, of Belleville, served as food ombudsman this year, and she was on the Interhall Council last year. Ms. Murray, of Toronto, is a human biology major. She has served as a biology representative on the Central Student Association and this year is chairing the Biology Student Council.

The March election was the third for students to sit on the Board; the first for the selection of two students to the Board, and the first under new election procedures conducted under the auspices of a chief electoral officer.

At present, one student, Jim Whitechurch of the College of Social Science, serves on the Board. His one-year term will be completed June 30. The first student member on the Board was Henry Greisman, OAC. □



Welcome to Board of Governors: Dr. Tony Whitworth, Office of Vice-President, Administration, discusses Board minutes with the two new student members, Patricia Cook, centre, and Ellen Murray.

A POLITICAL SCIENCE student at Carleton University is attempting to establish a Canadian Student Pugwash group. The Canadian movement seeks to establish a network of young social and natural scientists across Canada who are concerned about the ethical issues relevant to their work. They will also promote an educational discussion of these issues between young and older scientists through correspondence, workshops and conferences and encourage scientists outside the organization to consider the ethical implications of their work. For more information write Fraser Homer-Dixon, 806-474 Wilbrod St., Ottawa, Ontario, K1N 6M9, or telephone 613-235-3763.

THE GUELPH YM-YWCA is sponsoring a Values Exploration Workshop May 10. Reservations must be made before April 27. Telephone 824-5150 for more information.



Distinguished teacher: Professor Forshaw, doing what he enjoys best.

Adieu to Professor Forshaw

Animal and Poultry Science professor, R.P. Forshaw, better known to everyone on campus as "Bob," retires May 1.

Born and raised on a British Columbia ranch, Prof. Forshaw claims that he comes to agriculture naturally; his ancestors had farmed in England for many generations. His deep interest in 4-H Club work began while he was a student in the faculty of agriculture at the University of British Columbia. He was a livestock judge on two different judging teams and he won the high aggregate livestock judging trophy in his senior year.

After graduation, Prof. Forshaw attended Macdonald College where he received his M.Sc., majoring in animal nutrition. He spent another two years in post-graduate study before returning to British Columbia in 1940. There he worked, in turn, as an agricultural consultant for Safeway Stores and as a research assistant in the department of agricultural economics at UBC. He joined the department of animal husbandry at the University of Saskatchewan in 1943, and, in 1947, found himself at Guelph.

While deeply involved in the promotion of swine production, Prof. Forshaw is much respected for his commitment to teaching and his concern for the welfare of others. In 1979 he was the recipient of the OAC Distinguished Teaching Award. Much of his free time has been absorbed in leading roles on various committees and organizations. He was a director of the Wellington Co-operative Medical Services for 16 years, serving as its president twice; president of the Guelph Campus Co-op and counsellor in the South-Wellington Branch of the United Co-operatives of Ontario. While with the WCMS he was instrumental in obtaining benefits for students which they have continued to enjoy for the past 28 years.

Prof. Forshaw has also been an active member of the University Senate, since its inception, and a member of the University's judiciary committee. A member of the Faculty

Association, he has been active on the benefits committee for 10 years and during this time he has seen steady improvements in the program benefits. With the co-operation of the University Administration and the provincial government, the committee which he chaired obtained pension supplements for those employees who were originally in the Public Service.

Prof. Forshaw is a member of the Agricultural Institute of Canada and the Canadian Society of Animal Science. He served as secretary of both the eastern and western branches of the society and of the national body. He served as president of the eastern branch and the national body. He is a charter member of the Saskatchewan and Ontario Institutes of Agrologists. He has judged swine at the CNE and the Royal Agricultural Winter Fair, as well as at other shows.

While at Macdonald College, Prof. Forshaw became interested in irises — that modern off-shoot of the old, familiar flower, the "flag." This interest led him to the presidency of the Canadian Iris Association from 1968 to 1973 and 1978 to 1979.

Summing up his career thus far Prof. Forshaw says, "I've been very fortunate in that I have always been able to do what I enjoy."

Friends and associates will honor Prof. Forshaw with a retirement dinner Saturday, April 19 in Peter Clark Hall of the University Centre. The social hour begins at 6:30 p.m., and dinner at 7:30 p.m. □

THE COLLEGE WOMEN'S CLUB annual general dinner meeting is Tuesday, May 6 at the Holiday Inn, Stone Road West, Guelph. Cocktails will be served at 6:30 p.m., followed by the dinner at 7 p.m. and the general meeting at 8:30 p.m. Tickets, at \$7.50 per person are available from Helen Stewart, 821-1777; Elaine Smith, 836-7707, or Leida Peepre, 822-3103. Members who need a ride should contact Donna Sunter, 836-6082.

Scientists nearing answer to disease killing seals

Scientists are nearing the answer to the respiratory disease killing harbor seals along the US New England coast. (See *News Bulletin*, 80 02 09.)

From the laboratories of Guelph's Ontario Veterinary College and the Massachusetts General Hospital, the investigating team headed by OVC pathologist Dr. Joseph Geraci, has isolated three groups of organisms associated with lung infection in the seals. These include bacteria, a bacteria-like micro-organism known as mycoplasma, and a virus.

Dr. Geraci, quoted in a news release from the New England Aquarium at Boston, says that the scientists are paying particular attention to the virus. It is a Type A animal influenza virus of the kind that can cause pneumonia. Studies are under way to determine whether the disease is caused by the virus alone or by the virus in concert with the other organisms.

Until the studies are complete, sometime during the summer months, no general statement can be made regarding the disease process. Dr. Geraci affirms that the disease strikes quickly and is contagious within the seal population. The epidemic continues and appears to be following the northern movement of seals into the spring breeding grounds off the New England States and our Maritime provinces.

Some 250 dead harbor seals have been collected from the beaches of New England since last December. Detailed post-mortem examinations were carried out on 85 harbor seals. Samples of tissues were sent to OVC pathologist, Dr. Ian Barker, and to doctors at the infectious disease unit of Massachusetts General Hospital for isolation of the agents responsible for this condition. Tissues were also banked in the event that examination for environmental contaminants is indicated at a future date.

In association with these studies, attempts are being made to focus on the features of the

life history of seals that may have predisposed these animals to the disease. In Dr. Geraci's judgment, the disease is likely to be self-limiting, affecting many or all of the seals, killing only those most susceptible. Survivors may acquire resistance and thereby be protected against further attack by the organism (s), he says. The pathologist notes that epidemics in small populations are often linked with population density. As the seal numbers decrease to some extent, due to disease and because of dispersion, it may help to limit the spread of the infection.

A team of veterinarians, led by Dr. Geraci, is now completing necropsies on the remaining harbor seals. Examinations will also be carried out on specimens which may be recovered in the future. A second phase of this study is anticipated. It will involve determination of the occurrence and pattern of mortality and the investigation of elements associated with the population, including environment, food and other biological factors. This study is needed to understand the relationship of the disease to the animals and to determine if it is a natural process related to normal cycling of populations, or potentially a secondary problem related to some yet unknown factor.

These studies are being conducted at the Grafton facility of Tufts University. The research team consists of veterinarians from the US Department of Agriculture and scientists from the New England Aquarium, the Smithsonian Institute, the National Museum of Natural History and Harvard and Yale Universities. Also participating in these efforts have been the National Marine Fisheries Service, the National Park Service, the US Fish and Wildlife Service, Massachusetts General Hospital, Sealand of Cape Cod, Natural History Museum of Cape Cod, Commonwealth of Massachusetts and State of Maine Department of Natural Resources. □



THE FOLLOWING ITEMS are for sale to University departments for departmental use only on an ITI basis: 2 IBM 2741 terminals, 6 oak double pedestal desks, 3 oak secretarial desks, Olivetti Editor 4C typewriter, quantity of wooden chairs and stacking chairs, 4 lab cupboards, IBM dictating equipment, 5 computer card cabinets, 2 coat racks, magnetic reel-to-reel tapes, 4 bookcases 72"h x 46"w x 16"d and 2 bookcases 72"h x 28"w x 16"d.

For more information, please call Kathie Swackhammer, Ext. 2105.

A ONE-DAY public workshop on stress management will be held on campus Saturday, April 26 with health counsellors Ron Walsh and Sunny Sundberg of Waterloo. For more information, contact the Continuing Education Division, Ext. 3957.

THE THREE CENTURIES FESTIVAL, at Elora August 8 to August 17, is sponsoring an organ recital May 11 by the world famous Dutch organist Piet Kee.

Piet Kee will be in Canada to adjudicate the national organ competition being held during the Guelph Spring Festival in association with the Royal Canadian College of Organists. The Elora concert, his only Canadian performance, will include works by Bach, Mendelssohn, Franck, Alain and an improvisation on a chorale.

Tickets for the 4 p.m. concert at St. John's Anglican Church on Henderson Street, are \$5 for adults and \$3.75 for seniors and students. The tickets may be obtained from the Three Centuries Festival, Box 990, Elora, Ontario, NOB 1S0, or telephone 843-1760. Please mail your cheque with a self-addressed envelope.

Goods and Services

For Sale — New acoustic guitar (Horner), with case, 822-2915; 2 weight sets and bench press, 14" B/W TV, 836-7061; reconditioned upright piano with bench, 822-1734; Pioneer PL-12, belt driven, manual turntable, excellent condition, 836-0153; 1969 Fiat 124 Spider convertible, 3524; 1975 Honda CB360T, new exhausts, chain, windshield, electric start, 14,000 miles, with 2 helmets and cover, 822-9198; Kenmore wringer washer, very good condition, 821-1168; boy's bike (CCM Pursuit 10), 24" wheel, 821-9792; girl's 5-speed Raleigh bicycle (for 10 to 12 year old), 824-9867; twin size mattress (39") in very good condition, 824-3027; end tables, 821-2613 after 4 p.m.; 16' Fiberglass canoe with life jacket and paddles, 821-8761; Frigidaire over and under stacked washer and dryer, full size, nearly new, excellent condition; patio door (sliding side only) with screen door, 38" x 80", double glazed, wood frame; new swimming pool vacuum hose (45'), chandelier dining room 5-light fixture, golf bag, copper tone range hood with fan and outside exhaust, 824-5557.

Wanted to Buy — Small box trailer or Skidoo trailer, 821-9792 evenings.

Accommodation

To Sublet — 2 bedroom furnished townhouse, Wellington Woods, washer and dryer, May to September, 823-1698; fully furnished apartment, accommodates two, June 1, 1980 to September 1, 1980; 2 bedroom townhouse, Wellington Woods, May to August 31, 836-6214.

For Rent — Fully furnished house, close to campus, married students only, August 1 to September 30, 823-2088; fully furnished 8 room stone house in St. George's Park area, August 1, 1980 to August 1, 1981, 836-2868.

Wanted to Rent — Faculty member wishes to rent room, preferably in the country, starting May 1, 1980, Dr. Richard Lonetto, 2161/3979; 2 bedroom apartment, close to University, for OVC employee and child, for May 1, Paul, 2672; single level, furnished house for visiting professor from U.K., May 15 to August 31, 1980, 824-8868 evenings.

Holiday Accommodation

For Rent — Furnished apartment in condominium, for 4 to 6 persons, in front of Caleta Beach, Acapulco, all services, pool, bar, restaurant, stores, Mrs. Matabuena, 824-2253.

For Sale — 4 bedroom, custom built house (Reid and Laing), 1% bathrooms, attached garage, on quiet, attractive street, close to campus, possession August 31, Prof. Margaret Evans, 822-4508; 4 bedroom side-split house with basement apartment, University area, 824-2570.

THE ROYAL ALEX SHUTTLE service will take you to see *The Grass Is Greener* on May 21.

The Royal Alex Shuttle Trip, sponsored by the University Centre Programming Office, is \$13 per ticket. This includes a good orchestra or balcony seat and return transportation in a travel cruiser. The bus leaves the University Centre at 6:30 p.m. Tickets are available at the central box office in the University Centre, Ext. 3940.

Secretaries Week this year is April 20 to April 26. Secretaries Day is April 23.

New laboratory for Horticultural Science

An outdated biochemistry laboratory in the Horticultural Science building is undergoing renovation. The change is part of the on-going program to improve teaching and research facilities in the 50-year-old building.

The existing laboratory was partly refurbished in 1958, but is now not suitable for the ever-changing and growing priorities of teaching and research in the Department, according to acting chairman, Professor Patricia Harney.

Planners have incorporated many of the existing serviceable pieces of equipment and cabinets into the new design. A walk-in chromatography compartment has also been preserved as have other units which still efficiently serve the broad research needs of the Department's faculty and students. A closed-in hot room which isolates heat and fume-producing operations, also houses a double fume hood, multi-heater extractors and steam and water bath facilities. The central, and largest portion of the laboratory, is reserved for instrumentation, weighing equipment and benches for dry and vapor-free operations. There is also a closed-in faculty office and access to adjacent laboratories.

Professor Ambrose Zitnak and Professor Bernie Grodzinski will be supervising the teaching and research functions in the new facility.

Professors Zitnak and Grodzinski and other Department faculty members are engaged in research in phytochemistry, plant physiology and plant biochemistry. Their research focusses on the quality aspects of fruits and vegetables, photosynthetic potential of horticultural plants and the secondary plant substances affecting nutritional and health qualities of plant foods. □

COPIES of *Applied Science-Applied Humanities: A Strategy for Canadian Universities in the 1980's* are available from AUCC Publications, 151 Slater Street, Ottawa, Ontario, K1P 5N1. The cost is \$2.

Cartographic Assistant, Department of Geography. MTS III. Salary range \$201.09-\$289.21.
Secretary, Alumni Affairs and Development. Salary range \$169.69 - \$241.12.
Clerk, Environmental Biology. Clerk I. Salary range \$153.04 - \$224.37. (Open to on-campus employees only.)
Data Clerk, Land Resource Science. Clerk II. Salary range \$182.24-\$264.67. (Open to on-campus employees only.)
Library Assistant I, Processing. Salary range \$143.66 - \$202.98. (Open to on-campus employees only.)

For further information please see bulletin boards.

Board of Directors

Professor G. Boehnert, History, has been elected to the board of directors of the Atlantic Council of Canada.

Elected President

Sandra Webster, Information, has been elected president of the Guelph chapter of The Canadian Federation of Business and Professional Women's Clubs.

Travels and Seminars

Professor Doug Auld, Economics, presented a seminar at the department of economics, University of Waterloo, entitled "The Influence of Wages in the Public Sector on Inflation."

Professor Patricia Cross, Consumer Studies, gave an invited paper in Toronto, at the annual forum of the Toronto chapter of the American Society for Quality Control. Her paper was entitled "Consumer Quality Protection from a Non-Legal Point of View."

Professor E.W. Findlay, School of Agricultural Economics and Extension Education, attended a meeting of the board of directors of the Community Development Society at Purdue University, Illinois.

Professor Cameron Man, School of Landscape Architecture, has returned from conducting one-day professional upgrading seminars in Atlanta, Denver and San Diego. Approximately 160 practising landscape architects from 35 states attended.

Professor L.J. Martin, School of Agricultural Economics and Extension Education, presented a paper "Performance and Problems of the Canadian Grain Export System" to the Grain Dealers Conference at the University of Illinois, Champaign, Illinois. Prof. Martin was also summary speaker at the Canadian Agricultural Commodity Conference in London and an invited speaker at "Outlook for Pork," annual meeting of the Ontario Pork Producers Marketing Board held in Toronto.

Professor K.D. Meilke, School of Agricultural Economics and Extension Education, visited Ottawa recently to work on Agriculture Canada's comprehensive forecasting model.

Professor Alex Michalos, Philosophy, attended a Conference on Morality, Rationality and The Environmental Crisis at the University of Colorado, Boulder. He gave a talk on uses and abuses of the fact-value distinction for rational decision-making.

Professor M. Nawaz, Sociology and Anthropology, hosted a distinguished lecturer, W. James Blacklock, Counsel, Crown Law Office — Criminal, Ministry of the Attorney General, Toronto. Mr. Blacklock's presentation was entitled "Selected Aspects of the Workings of the Canadian Criminal Justice System." This area of interest was of particular importance to the students' taking such courses as 86-305, Criminal Justice and Corrections; 86-303, Criminology I; 83-403, Criminology II and 86-207, Theory of Social Deviance.

Professor J.C.M. Shute, School of Agricultural Economics and Extension Education, gave an illustrated address to the Royal Canadian Institute, Toronto, on the topic "Canadian Co-operation with Hungry Nations: An African Case."

Professor M.R. Wilson, Clinical Studies, attended Swine Health Day at Kansas State University. He presented two papers entitled "An Overview of Enteric Diseases" and "Economic Assessment and the Future."

Professor T.K. Warley, School of Agricultural Economics and Extension Education, addressed the annual meeting of the Ontario Institute of Agrol-ogists held in Toronto. He spoke on the topic "Part-Time Farming: A Perspective."

Professor R.D.G. Webb, School of Human Biology, led a half-day management seminar on ergonomics at Domtar Ltd. in Montreal.

The internationally renowned conductor, Juan Matteucci was a guest artist in the Music Department recently. Maestro Matteucci lectures in the World Music class on "South-America: Its Indigenous Music and Its Place in Art Music." He also discussed the music of the Maoris. In addition, he gave a masterclass and workshop in the conducting course. Maestro Matteucci also discussed the interpretation of Baroque and modern music in the music history classes. A public lecture was also given entitled "The Conductor in Society."

Professor P.J.N. Pinset of the University of Bristol was a short-term visiting professor in the Department of Large Animal Medicine and Surgery in March. A graduate of the University of Liverpool, he was in practice from 1950 to 1958. He then became a lecturer at the University of Liverpool from 1958 to 1966. He has been a senior lecturer at the University of Bristol since 1966. While at the OVC he gave a number of presentations.

Dr. Andrew H. Wilson, president of the Canadian Society of Mechanical Engineering visited the School of Engineering recently. He was on a fact-finding trip for the Society.

TWO GUELPH faculty members are to be speakers at the Human Performance in Industry seminar sponsored by the University in co-operation with the Industrial Accident Prevention Association May 8 and May 9 in Toronto. The two-day seminar, specifically designed for industrial engineers and plant and production managers, will permit participants to examine and apply ergonomics in the work place. Professor R.D.G. Webb, School of Human Biology, will speak on "The Role of Ergonomics in the Work-place" and "Training — A Systems Approach." Professor M.L. Matthews, Psychology, will speak on "Information Processing in Inspection and Process Control."

AUSTRALIA'S KOOKABURRA COUNTRY is the topic of the next Audubon Wildlife Film Friday, April 18 at 8 p.m. in War Memorial Hall. Admission is free to this film with the purchase of a season ticket for next year's series of five films. Season tickets are \$7, single; \$14 family. Tickets may be purchased at the door or telephone 822-5588 or 822-4062.

Blix, A.S. H.J. Gra^y and K. Ronald, 1979. "Some Aspects of Temperature Regulation in Newborn Harp Seal Pups," *Am. J. Physiol.* 236: 188-197 (Zoology).

Gallivan, G.J. and K. Ronald, 1979. "Temperature Regulation in Freely Diving Harp Seals (*Phoca groenlandica*)," *Can. J. Zool.* 57: 2256-2263 (Zoology).

Goddard, E.W., L.J. Martin and G. Griffith, 1980. *A Model of Australian Trade in Beef with North America*, Working Paper No. 8, Policy, Planning and Economics Branch, Agriculture Canada, Ottawa, March (School of Agricultural Economics and Extension Education).

Harris, W.H., 1980. "The Effects of Repeated Doses of Indomethacin on Fetal Rabbit Mortality and on the Patency of the Ductus Arteriosus," *Can. J. Physiol. Pharmacol.* 58: 213-216 (Biomedical Sciences).

Iwueke, Christopher C. and E. Weldon Findlay, 1980. "Factors Related to the Effective Administration of Extension and Rural Development in Nigeria," *Agricultural Administration* 7(1): 59-69 (School of Agricultural Economics and Extension Education).

Knap, K.M., W.T. Dickinson, S.W. Collins and A.M. Scott, 1980. *Streambank Erosion in the Canadian Great Lakes Basin*. OMNR report to the International Joint Commission (School of Engineering).

Leatherland, J.F. and K. Ronald, 1979. "Structure of the Testis in Neonate and Adult Harp Seals *Pagophilus groenlandicus*," *Cell Tiss. Res.* 201: 45-49 (Zoology).

Markham, R.J.F. and B.N. Wilkie, 1980. "Interaction between *Pasteurella hameolytica* and Bovine Alveolar Macrophages: Cytotoxic Effect on Macrophages and Impaired Phagocytosis," *Amer. Journ. of Vet. Res.* 41 (1) January: 18-22 (Veterinary Microbiology and Immunology).

Mittal, K.R., I.D. Ricciardi and I.R. Tizard, 1980. "Indirect Hemagglutination Employing Enterobacterial Common Antigen and *Yersinia* Somatic Antigen. A Technique to Differentiate Brucellosis from Infections involving Cross-Reacting *Yersinia enterocolitica*," *Journ. of Clin. Microbiol.* 11 (2) February: 149-152 (Veterinary Microbiology and Immunology).

Pattie, D.R., 1980. "Wires Help in Plowing Tall Green Crops," *Farm Equipment Quarterly* 6 (1): 36 (School of Engineering Extension).

Sergeant, D.E., K. Ronald, J. Boulva and F. Berkes, 1979. "The Recent Status of *Monachus monachus*, the Mediterranean Monk Seal," *Biol. Conserv.* 14: 259-287 (Zoology).

Shute, J.C.M., 1980. "Review of Budd L. Hall and J. Roby Kidd, eds., *Adult Learning: A Design for Action*," in *Can. J. Univ. Cont. Educn.* 1(2): 45-46 (School of Agricultural Economics and Extension Education).

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Isabel Bellamy

Barbershop champions

The University community has a number of international champions in its midst — five women who are members of the Overtones, a ladies barbershop chorus.

The group won the international competition held in Toronto in 1978 sponsored by the parent organization, Harmony Incorporated. This was no mean feat when the competition was 32 of the best choruses across Canada and the U.S.

Isabel Bellamy, secretary to International Student Advisor Don Amichand; Allyson Trimble, Animal and Poultry Science; Marily Hutchins, Medical Services; Florence Boys, Library, and Kathy Haneson, a student, are among the 53-member Overtones. They sing a cappella in four-part harmony comprised of lead, baritone, tenor and bass. Some of them break off to do quartet numbers as well.

Because the group had won the championship in 1978, it could not compete in the 1979 competition at Lake Placid, New York. "We attended, though, to perform a half-hour show and to 'sing away' the championship," says Isabel. A long-playing record is cut at each convention and copies are available from chorus members.

This year the Overtones will compete in the area preliminaries in Rochester, New York, in June, and if they finish in the top four they will attend the annual convention in Chicago in November. At this convention, which attracts some 2,000 members, the groups are judged on choreography, interpretation, stage presence, and their singing. The members make their own costumes and they apply their own stage makeup.

Besides raising the money for their costumes and travel expenses (last year the Overtones received a \$1,000 grant from the City of Guelph), all Harmony Incorporated members raise funds for autistic children. Locally, the Overtones have been asked to sing at the Elliot Home at Christmas and they have also performed at banquets and a public performance at the Stone Road Mall.

The Overtones meet every Monday night at 8 p.m. in the basement of St. Joseph's Church, Paisley Street, Guelph. Any female over the age of 18 years is welcome.



The retiring secretary-general of the Association of Commonwealth Universities, Sir Hugh W. Springer, was on campus recently. His visit was part of a tour of universities in southwestern Ontario to discuss Commonwealth relations among Commonwealth universities. Attending a luncheon in his honor are, seated, left to right, Vice-President, Administration, Charles Ferguson; President Donald Forster, Sir Hugh, and Vice-President, Academic, Howard Clark. Standing, left to right, Dean of Graduate Studies, Herbert Armstrong; Acting Dean of FACS, Richard Barham; Dean of CPS, Earl MacNaughton; Dean of CBS, Keith Ronald, and Dean of Arts, Tom Settle. Sir Hugh steps down September 30. His successor is Anastasios Christodoulou, Secretary of the Open University, England.

Laurentian University has been awarded a \$104,875 contract by the Royal Commission on the Northern Environment to investigate the possibilities for new mining activity in Ontario north of the 50th parallel.

This is the second major research project launched by the Commission in recent months. In November, Lakehead University in Thunder Bay was contracted to do a companion study on the forest industry. That report is due September 1, 1980.

Computer model helps pinpoint areas of high water runoff

University of Guelph water-resource engineers have been using a computer-based mathematical model as an aid in locating areas in a watershed that produce high rates of storm runoff from snowmelt and rain. Water from these areas often causes flooding and soil erosion in Ontario's farmlands.

The computer-based model has been used for five years and was initially developed for the International Joint Commission's Pollution from Land Use Activities Reference Group in its investigation of pollution of the Great Lakes.

Despite centuries of observation, says School of Engineering professor Hugh Whiteley, there is still today a degree of uncertainty as to how water passes over and through the landscape. For this reason it is difficult to predict, with respect to ground water and stream flow, the changes in the amount of water which will occur if you change the land surface. And if you find something in the water you do not like and want to know how it got there and how it can be removed, some of the questions demanding answers will be: What is the effect of farm drainage on stream flow?, and, What can be done to reduce the amount of sediment entering streams?, says Prof. Whiteley.

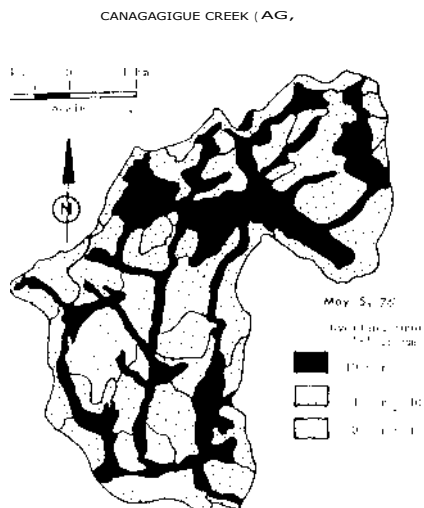
Engineers can describe physically the various parts of water flow systems, such as the processes of the infiltration, surface or sheet flow and the flow through porous material, but the major difficulty, he continues, is in applying the knowledge to the complicated and varied features of a natural watershed, with its many separate and distinct kinds of surface. The best solution so far has been to devise mathematical, simple representations of the complicated landscape which, if not perfect representations, are, nonetheless, useable approximations. One can not yet measure all of the numbers that go into the model in order to get a perfect match, says Prof. Whiteley, but as the search goes on to find ways of measuring all the elements in the calculations, the model is being continually refined and improved.

The outcome of the International Joint Commission PLUARG study was to focus attention on land near streams, says Prof. Whiteley. The study found that such land produced overland runoff more often and in larger quantities than better drained land farther removed from the stream, and so it was seen that remedial measures were needed in the first land category to reduce erosion there.

Building on this knowledge, the Guelph research group found that "areas most likely to produce frequent snowmelt and storm runoff are wet, poorly drained, cultivated land in low lying areas, particularly near streams. High landscapes, with more permanent cover crops, such as forage drops, are least likely to produce frequent runoff."

Prof. Whiteley, and graduate student Dave Yaeger, have used the model to study the delaying effects of snow and ice on watershed surfaces. The model has also been applied to an initial examination of the effects of drainage works on streamflow. This latter type of application is expected to expand as there are two major studies now under way in Ontario — on the Grand and Carp Rivers — in which effects of drainage on streamflow is a major topic.

Fourth year Engineering students have also been using the computer model to provide analyses of problems in their final-year design courses. This versatile, mathematical model, therefore, has proved invaluable as a teaching aid on campus, as well as an asset for professionals in the field. □



Graphic shows the amount of runoff produced on different areas of Canagaigigue Creek for a May 5, 1979, storm.

Shuttle service to Blue Jays games

The University Centre is once again sponsoring the Blue Jays Summer Shuttle '80. A travel cruiser will be heading to Exhibition Stadium, Toronto, seven times this season to take in all the exciting action of major league baseball.

The total cost for each game, including an upper level chair in prime viewing location along the third base line, is \$11.50. This includes return transportation. The bus departs from the front of the University Centre.

Reserve your tickets today by telephoning the central box office in the courtyard of the University Centre, Ext. 3940.

Elected to land economics fraternity

Professor R. Stephen Rodd, acting director of the Centre for Resources Development, has been elected to membership in Lambda Alpha, the international honorary fraternity in land economics. At the recent meeting of the Simcoe chapter he was presented with his certificate of membership with the citation that he was elected "in recognition of his achievements as theorist, writer and teacher of rural and agricultural land economics, regional economic structure, urbanization in rural areas, and other fields and of his contributions to the practice of rural planning."

Lambda Alpha was founded 50 years ago at Northwestern University to foster the study of land economics. The membership consists of "persons of stature, accomplishment and responsibility" in architecture, economics, engineering, law, planning, appraisal, mortgage lending, land development and other activities related to both theoretical and practical aspects of land economics. The only chapter in Canada is the Simcoe chapter in Toronto, with 35 members from across Ontario.

In a paper presented to the Society, Prof. Rodd said that high values for rural land, stimulated by non-farm demands, create a planning problem for agriculture from the long-run viewpoint of the province or nation. Also, it may create a planning problem for some individual farmers and for local municipalities whose objectives and commitments are in the agricultural sector of society and the economy.

With respect to agricultural land, Prof. Rodd gave three definitions of "development": outward growth at the city's edge; conversion of rural land to urban-oriented uses whether recreation, housing or dumping, and improvement of the agricultural industry in an area.

If land values in a farming area were to be controlled by non-farm demands or the expectation of future demand, the development of the industry would eventually halt and begin to regress, he believes. There is inertia in farming, stated Prof. Rodd, and once the industry starts to move in a downward direction, it is difficult to stop. To flourish, the farming industry must rest on the balanced base of interdependent biophysical and socio-economic systems.

Planning for agriculture is only part of rural planning and rural development, he explained. The approach to planning also, including objectives, policies and instruments, must be different in each context. For example, he said, the farm component of agriculture may be appropriately treated as a "holding" in one context, while in a long-term planned urban-fringe strategy, its functions are quite different. The farm component in the latter case should be valued for its own sake, in plans in southern Ontario, as a producer of various products, creator of a lifestyle and a diverse economic sector, he concluded. □

Next Week at Guelph

THURSDAY, 80 04 17

Art Exhibit - SURVIVAL ATLANTIC STYLE 16 Maritime artists, main floor, McLaughlin Library until 80 04 21.

Biomedical Sciences Seminar - ROLE OF PROSTAGLANDINS IN PARTURITION IN SWINE, Kathryn Martin, Biomedical Sciences, 11:00, OVC 309 (Bldg. 39).

Luncheon Special - 11:30, PCH, UC.

Public Lecture - NATIONAL CONSCIOUSNESS AND IDENTITY AMONG SCOTTISH HISTORIANS OF THE 16TH AND 17TH CENTURIES, Dr. Ian Rae, Keeper of the Manuscripts, National Library of Scotland, 15:00, Arts 310.

Worship - ANGLICAN EUCHARIST, 17:00, UC 334; CATHOLIC MASS, 17:00, Chapel, level 5, UC.

TV - SPOTLIGHT ON UNIVERSITY OF GUELPH, Prof. G. Boehnert, History, and a press conference with Armin Halle, director of Information for NATO on role of NATO, 19:00, Cable 8.

Religious Meetings - NAVIGATORS NEW LIFE, 19:00, UC 442; INTERVARSITY CHRISTIAN FELLOWSHIP, 19:00, 9th fl. lge., Arts.

Open Panel Discussion - FOCUS ON FAMILY VIOLENCE: WOMEN IN CRISIS, with speakers Sandy Odegard, volunteer, Women in Crisis Centre; Sean Pennylegion, co-ordinator, Guelph Information and Inga Rinne, lawyer, 20:00, UC 103. A sisterhood project of the University Women's Club of Guelph.

FRIDAY, 80 04 18

Classes conclude - DVM Program

Luncheon Special - 11:30, PCH, UC.

Worship - MUSLIM FRIDAY PRAYERS, 12:30, Chapel, level 5, UC.

Audubon Wildlife Film - KOOKABURRA COUNTRY: AUSTRALIA, 20:00, WMH. Free admission for next season's ticket holders.

SATURDAY, 80 04 19

Tribute - BOB FORSHAW NIGHT, 18:30 (social hour), 19:00 (dinner), PCH, UC.

Free Film - WEEKEND and AS USUAL, 19:00, L.A. 204.

SUNDAY, 80 04 20

Worship - CATHOLIC MASS, 10:10, PCH, UC; MUSLIM ZOHR PRAYERS, 13:30, 9th fl. lge., Arts.

TV - SPOTLIGHT ON UNIVERSITY OF GUELPH, Prof. G. Boehnert, History, and a press conference on the role of NATO with Armin Halle, director of information for NATO, 11:00, Cable 8.

MONDAY, 80 04 21

Examinations commence - DVM Program

Land Resource Science Seminar - WEATHER INPUT TO PEST MANAGEMENT PROGRAMS, Prof. T.J. Gillespie, Land Resource Science, 15:10, L.R.S. 124. Coffee and doughnuts beforehand in Room 230.

TUESDAY, 80 04 22

Examinations conclude

Worship - ANGLICAN EUCHARIST, 17:00, UC 332; CATHOLIC MASS, 17:00, Chapel, level 5, UC.

WEDNESDAY, 80 04 23

Symposium - RESEARCH FOR THIRD WORLD DEVELOPMENT. Co-sponsored by the University of Guelph in co-operation with the International Development Research Centre (IDRC), Ottawa.

Luncheon Special - 11:30, PCH, UC.

Worship - CATHOLIC MASS, 12:00, Chapel, level 5, UC.

Dance Club - INTERNATIONAL DANCE CLUB, 20:30, upstairs in the Stadium (GrYP hon Room). Information: David Green 836-8453.

THURSDAY, 80 04 24

Luncheon Special - 11:30, PCH, UC.

Worship - ANGLICAN EUCHARIST, 17:00, UC 334; CATHOLIC MASS, 17:00, Chapel, level 5, UC.

TV - SPOTLIGHT ON UNIVERSITY OF GUELPH, Prof. G. Boehnert, History, and a press conference on role of NATO with Armin Halle, director of information for NATO, 19:00, Cable 8.

University of Guelph Faculty Association - COUNCIL MEETING, 19:30, Faculty Club, level 5, UC.

Guelph to host conference on rural development

Rural development in Canada is the focus of a national conference on campus May 11 to May 14 organized by the Continuing Education Division of the University School of Continuing Education and Part-time Studies.

"During the last 20 years, governments, universities and communities have been involved in our rural development, with mixed results," explains conference chairman Tony Fuller, who is the Director of Guelph's Rural Development Outreach Project. "At the conference, these past experiences as well as present policies and programs will be assessed. We will then develop a statement concerning future directions in Canadian rural development."

Experience has shown that the question of approach is crucial to the success or failure of any project, such as conservation, economic development for native peoples or agricultural rights, says Prof. Fuller. Government involvement sometimes results in a top-heavy structure which relates little to the community concerned. Alternatively, the grass roots involvement of community groups, such as women's institutes or economic councils, often fail because their perspective is too narrow to gain wide appeal.

The conference will conclude with an international perspective. A panel including guests from Europe and South America will discuss the implications of Canada's rural development experiences for developing countries. □

THE 1980-1981 TELEPHONE DIRECTORY for faculty and staff is now available. Copies for the University Centre will be distributed through Mail Services. All other departments should pick up their copies from the Switchboard Office, Room 017, Johnston Hall.

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