

# NEWS BULLETIN

UNIVERSITY OF GUELPH

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## Scientific fraud, suppression attacked

The scientist with a closed mind is just as culpable as the one who makes fraudulent observations, Solly Zuckerman said in his first lecture, speaking on suppression and distortion in science. Lord Zuckerman, British anatomist and member of the House of Lords, was scientific advisor to the British government before Sir Alan Cottrell, who spoke here last fall, also in the University of Guelph lecture series.

Lord Zuckerman pointed out that few new scientific truths appear self-evident. Since to accept new truth it is necessary to reject something you already believe or to accommodate to new knowledge, persuasion is extremely important to the scientist presenting a new idea.

"Persuasion, not straightforward communication, is as much a mechanism in science as in the world of politics," he said.

The scientist must often fight against the conventional wisdom of his period, as was the case with the Viennese obstetrician who lost his position for suggesting maternal deaths were caused by doctors' dirty hands. Although true, this was not an acceptable theory in the mid-eighteen hundreds when doctors came directly from dissections and teaching labs to deliveries. The obstetrician, Semmelweis, lost his job and is suspected to have committed suicide. Not only was the theory before its time, it stood to make the medical fraternity look foolish.

Other theories have been ignored purely through indifference or neglect. Failure to notice Gregor Mendel's simple experiments with peas, published in 1866, held back the science of genetics for decades.

In addition to suppression in science, Lord Zuckerman dealt with deliberate distortion. He gave several examples of this including the well known archaeological forgery — the Piltdown skull, and the lesser known case of the Larmarckian biologist who fooled the scientific world in the 1880's. He forced a land-breeding toad to mate in the water,

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## Growth inevitable, Lord Zuckerman says

"Environmental change is inevitable — we must be sure we don't make it intolerable," Lord Zuckerman said in his second lecture on the subject the middle of the environmental road.

Lord Zuckerman attacked the environmentalists who tend to naïvety and hysteria. He pointed out that Huxley and Haldane predicted our present situation in the thirties. The limits to growth argument as expounded by the Club of Rome's report *Limits to Growth* he attacked as "more naïve than anything ever put down on paper."

He said that whenever the world has become richer it has done so at a cost — the cost of change. He used the development of Ontario from pioneer days to the present as an example.

"Resources get used up, but we make more resources," Lord Zuckerman said. "The reality that we have to face is that man will continue trying to improve his lot."

However, he pointed out that we are boxed into what we have done in the past and what we have inherited. We are now dependent on such innovations as elevators, and the trucks, trains, etc. that provide our cities with food.

"We can't afford to prevent investment in resources if we want to protect our environment, but we must do it in a proper way and not leave a debt for our children," he said.

Lord Zuckerman's middle way is to avoid hysteria and despair while trying to improve the environment in a framework of political decisions. He pointed out the amenities and risks of this way. The amenities include developing so that we do not destroy what we want to preserve, as well as repairing past devastations. There will always be conflicts of interest here, he said, citing the parks policy. When footpaths are made through

wilderness areas, there are always dissenters who say, "the paths are a mistake — too many people will see the beautiful areas."

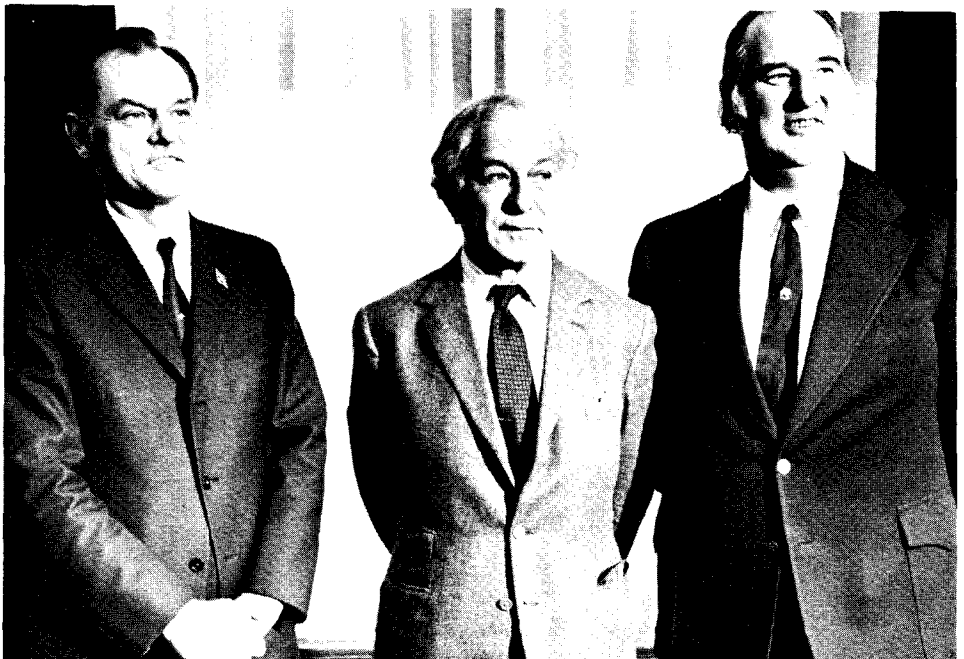
On the risk side of the environment he said that the universities can be a great help in widening our knowledge of things like pollution. Absolute standards for the environment are impossible, he said, because conditions are different in different places. He gave the example of DDT — "the benefits totally outweigh the consequences," and went on to tell how malaria has had a dramatic upsurge, killing thousands in Ceylon since spraying was stopped, not because people disapproved of it, but simply because the country couldn't afford the cost.

"We must be careful to put the risks in balance," the former science advisor to the British government said. "We don't want the environmental movement to make people think that living itself is an environmental risk."

He stressed that the main issue of the environment is looking after ourselves. He referred to the large landholders of past eras who lived in spacious parks, and said, "nobody lives in an enclosed park anymore: we all live in the same park."

For this reason the environmental issue is a political one. Lord Zuckerman pointed out that socio-economic systems are as sensitive to sudden change as ecological ones. The energy crisis now is pulling people into reality that should have been faced before.

He said that the development of nuclear power has been inhibited because of the cost involved. However, if we make comparison with present costs the results are purely nonsense, Lord Zuckerman said. . . "We must face the reality that the priorities of social costs are attuned to the inevitable."



Lord Zuckerman met with Zoology chairman Ken Myers and Professor K. Ronald, Dean of the College of Biological Science, during his visit to the campus.



*Dr. Jasper Brener, centre, spoke here on his research on learning to control the cardiovascular system in animals and humans. He is shown here with chairmen of the departments sponsoring his visit, Professor John Powell, Human Kinetics, and Professor H.M.B. Hurwitz, Psychology.*

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## Fraud in science

and eventually developed a land toad with a water toad's "nuptial pads," pads on the forepaws that made gripping during copulation possible in the water. Slides were shown in England and the United States, and although many doubted, no one proved him wrong, until New York scientist G. K. Noble actually examined the toad and incised the nuptial pad, causing India ink to spurt out.

Another obstacle to the development of scientific truth is the unacceptability of certain unorthodox avenues of research. Lord Zuckerman gave the example of Peyton Rous who got the idea that cancer was caused by a virus after experiments on a hen. When he advanced this theory, a colleague is supposed to have said, "Look here young man — that can't be cancer if you've found its cause." As a result Rous left cancer research and developed his talents in other fields.

Lord Zuckerman stressed the open mind again in his conclusion, reminding the group that contained a large number of scientists, that major advances in a field usually come through intrusion of knowledge from other fields. He pointed out that some of the major advances in medicine have come through intrusion of knowledge from the outside, chemotherapy, antibiotics and immunology.

"The limited theory is a closed box," he said, whereas "a scientific theory, because it can be tested and demands an open mind, can be used as a means of enlarging our understanding."



*Professor John Burton, left, and Professor W. D. Morrison, Animal and Poultry Science, discuss Professor Burton's experiences in Ghana prior to his seminar on that subject. Professor Burton gave one of the weekly Animal-Poultry Science seminars on his two years at the University of Ghana on the Guelph-Ghana exchange project. The seminars are held every Thursday this semester at noon in Animal and Poultry Science 141.*

## Back at OVC 2 years in Kenya

Professor J. Thorsen has returned to the Department of Veterinary Microbiology and Immunology after two years leave of absence when he was assistant director of Veterinary Services (Research) in Kenya, under the auspices of the Overseas Development Administration of the United Kingdom.

The livestock industry is an important part of agriculture in Kenya and meat, both fresh and canned, is exported to many countries. The maintenance of export markets for fresh meat and of adequate supplies of meat for home consumption depends on effective disease control. In this area, the Veterinary Services Division of Kenya is functioning very well, Professor Thorsen said, in spite of the wide variety of disease problems facing the country.

The University of Nairobi offers a degree course in veterinary medicine with a large number of Kenyans enrolled. In the near future the country will be self sufficient for veterinary manpower, Professor Thorsen said. However, at present there is still a need for outside technical assistance. The exchange is not one-sided, and he feels the experience gained with diseases exotic to North America will be of value in teaching and research at the University of Guelph.

## PERSONALS

**FOR SALE** — 19' B & W T.V. table model, 824-3542 after 6; 4 winter tires and car top for Volks, Ext. 3972; Nikon Photonic T. Camera, Sanyo Movie Camera, P. O. Box 1592, Guelph; Kneisel skis, with Nevada bindings and Collins poles, 195 cm, 824-8489; Renault 8 for parts, excellent engine, Michelin X tires, 821-2737 evenings; Double bed, Ext. 3464 or 824-3784; '65 Volks without motor, certifiable, 823-2732; Washing machine, 821-2494 after 6; Children's figure skates, size 13 and size 1, 824-8620; Men's Arlberg skis, bindings, 54" poles, size 9 buckle boots, Ext. 2483 or 822-6929; Mushroom color wool hardtwist carpet, 15' x 15', very good condition, 822-3832 or Ext 2721; 1920 Chandler-Price platen letter press and type, Glenn at Ext. 3615 or 843-2432; Girl's skates size 2, boy's size 5, sand bag throw game, size 8 ski boots, skis, fish tank and guppies, small coffee table, book case, hand knits, 824-7108; Chesterfield and chair, Mrs. Brown, 14 Stanley St.; 12' aluminum row boat, 821-3101; 2 13" Toyota snow tires on rims, 824-6563.

**HOUSING** — Fully furnished 5 bedroom house, Jan 1 to July 30, Ext. 3787; Female staff or faculty member wanted to share two bedroom apartment, Ext. 3983 or 823-2759; One bedroom apartment to sublet from Dec. 15 — Aug. 15, Ext. 3945 or 821-4544.

**MISCELLANEOUS** — Wanted to rent garage for car and motorcycle, 824-6278; Good home wanted for white and black male kitten, house trained, Iris at Ext. 2723 or 821-1935 after 5:30; White bristol board portfolio of 15 anatomy drawings lost. Please return to porter's desk, campus police, any studio or call Deborah Brockman, 823-5096.

## Magazine features Derek Healey

Professor Derek Healey was recently featured in a full page article in *The Music Scene*, a publication directed at the North American musical scene. The article was written by Michael Schulman, music editor of *Performing Arts in Canada* and the *Toronto Citizen*.

Professor Healey, who came here from Britain in 1969, told Mr. Schulman that influences on his music in Canada have included Indian and Eskimo music.

Professor Healey has become increasingly interested in electronic music. A quotation from the article describes Professor Healey's development in this field:

"Working with electronics has made me more sensitive to sound in general. You listen for every sound. . . I've recorded traffic noises as a sound source. . . It's interesting to see the effect of the seasons. Traffic noises are filtered by leaves in a certain way and by snow in a different way. When there's no snow or no leaves you've got it full blast. These are beautifully colored sounds you're not conscious of until you sit down to listen to them as a piece of music."

## Will speak on teaching alphabet

Dr. John Downing, formerly of the Institute of Education, University of London and currently Professor of Educational Psychology at the University of Victoria, B.C., will speak here on November 19. He was associated with the development and intensive research on the initial teaching alphabet (i.t.a.). His research in this area convinced Dr. Downing that the difficulty that some children have in learning to read is not due to the nature of orthography, nor to the way in which we symbolize sounds on paper, but due to the child's conception of the "language game." Dr. Downing is an educator of international repute and in the short time he has been in Canada has initiated some new types of experiments on language development in children. The subject of his colloquium is the child's conceptions of language. The colloquium will be Monday, November 19 at 4 p.m. in Landscape Architecture 204.

## Rent the Bull Ring

Al Robertson, manager of the Bull Ring, says he now has permission from the UGCSA to rent the pub on a first come, first serve basis during the Christmas holidays. Rental is \$30 and anyone who wishes to make use of the Bull Ring must sign a rental contract at Drew Hall.

## Chemistry drop-in centre popular near exams

For physical afflictions there's the medical centre. For emotional problems there's the psychiatric clinic. And for the disturbances that arise when a student is stumped by a chemistry assignment there's the Department of Chemistry's "drop-in centre."

The centre is a large room located on the first floor of the Chemistry-Microbiology building, where students may work on assignments, look at solutions to sample problems, or consult faculty members. Now in its fourth year of operation, it is designed primarily to help students in the larger chemistry courses. Three courses in general chemistry, two in organic chemistry and three in biochemistry have a total enrolment of 2,800 students. These students use the centre as a meeting place. Course materials are available in it, and examination marks and marking schemes may be posted on the walls.

The centre has proved popular, both with students and faculty.

"I find it quite helpful," says Don Myer, a first-semester B.Sc. student. "If I run into trouble preparing an assignment I don't have to hunt around for help. I can get it immediately."

### A one-to-one situation

"Faculty members get a sense of satisfaction from working at the centre," says Professor Allan Colter, chairman of the department. "You are working with students on a one-to-one basis. You know immediately whether or not the student understands what you're saying."

The centre is open throughout the day and during the evening, and is staffed from 9 to 5 o'clock by faculty members, and by post-doctoral fellows and senior Ph.D. students. (Two faculty people are posted there at a

time, for stints running from 9 to 1 or 1 to 5.)

There are 10 students in the centre on the average, although the number varies with the time of day and the time of semester. The room is most crowded between 12 and 2 o'clock and after 4. (A number of chemistry labs begin at 2 o'clock.) It is most used around exam time. For instance, during mid-term exams it was packed, and students were waiting in line to get in. But the following week there were only a few students at a time using it.

### Getting your money's worth

The student who pays \$60 tuition per course, then only attends lectures is not really getting his money's worth, says Professor Alan Mellors of the department. But the student who makes regular use of the drop-in centre is. He is getting direct, man-to-man tutoring of a kind that would otherwise be very expensive.

Perhaps 10 per cent of the students regularly do their assignments at the centre, he says. On the other hand, a hard-core of 30 per cent never use it. The remaining 60 per cent use it from time to time, especially to prepare for exams.

The centre seems to draw students who would not otherwise visit a faculty member. There tends to be a psychological barrier that keeps students from visiting faculty in their offices, says Professor Colter. But in the drop-in centre that barrier is lowered.

"Third and fourth year students, those who know I am a faculty member, seem reluctant to ask questions that reveal their own lack of knowledge," says Professor Mellors. "But first and second year students are not aware of my position and are much more frank and informal."



Professor C. A. Fyfe works with Jim Bell, first semester B.Sc.(Agr.) student in the drop-in centre.

## TV unit 5 years old

The television unit of the University's audio visual services celebrated its fifth birthday last week. Ian Easterbrook, the unit's supervising producer, described the time as a period of growth and change.

The unit did not get a permanent home until the Physical Sciences building opened in June, 1970, and it was at that point that the major portion of growth began.

In 1968 there was very little direct use of the television equipment by students; most of the time the equipment was used for instant analysis for theatre and sports.

Also to begin with, the unit did all its own recording, playback, cataloguing of tapes, and storing of materials. This has been narrowed down, and the unit now is only concerned with the production of viewing materials, with the library looking after the storage and cataloguing, and the individual user doing his own playback. Many departments have also acquired their own equipment.

Student involvement has been the major development as far as the use of the equipment has been concerned and this has been aided by three factors: reduced prices, simplification of equipment and the portability of systems which has led to use in research and as teaching aids.

The television unit seeks to aid faculty and students, said Mr. Easterbrook, by providing consultation, training opportunities, production facilities for authorized student course projects, program product as commissioned by departments, and classroom and individual viewing facilities.

Half of the production work now is done by students for courses, said Mr. Easterbrook who likes to make as much material available to the students as possible. This semester fine art students are making very heavy use of the television equipment as an electronic creative media, and in some cases, students are preparing video tapes in place of written papers, with departmental permission.

The material students are preparing is becoming increasingly complex and sophisticated, Mr. Easterbrook said. Most projects now have a life of a couple of years instead of being shown once and scrapped.

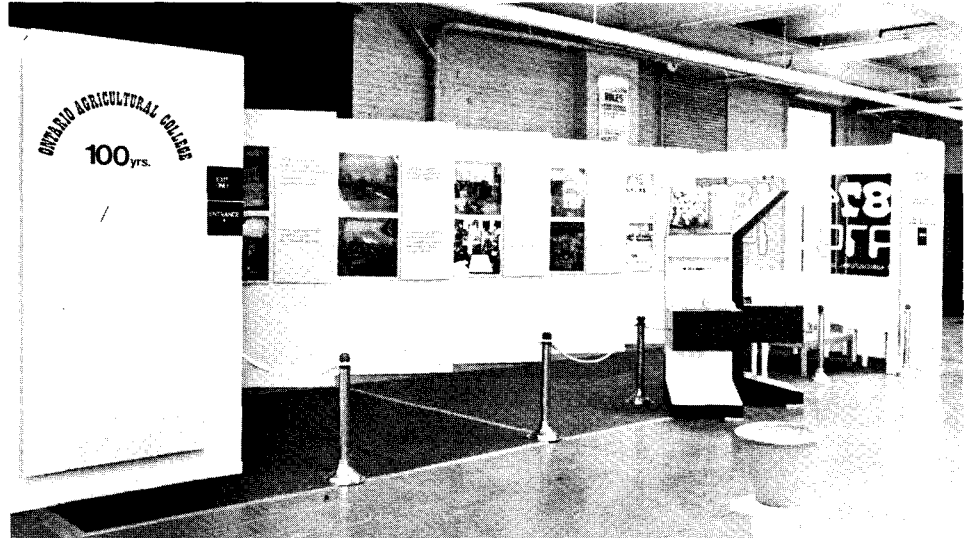
As far as future trends are concerned, Mr. Easterbrook feels that we will see more individualized use of video equipment. Students will be assigned video material for viewing for courses, which they will view at their convenience in the library. The mass viewing of the fifties and sixties is disappearing, and students are becoming increasingly involved in the production process as well as in the use of the final product.

## Annual Print sale

The annual sale of student prints will be held November 29 and 30 in the library stoa. The prints from the printmaking workshop include etchings, lithographs, wood-cuts and silk screens.



The first annual Purina top dairyman's seminar was held on campus recently. From left, front row, Professor J. C. Rennie, Dr. J. E. Tomlinson, St. Louis office; Professor G. K. Macleod, Animal and Poultry Science; Charles Brock, St. Louis; back row, Larry Dunlop, Woodstock office, and Harold Clapp, OMAF.



OAC centennial display at the Royal Agricultural Winter Fair, pictured as an artist's conception last week, is shown here as it appears. The tunnel exhibit shows 100 years of education and research at OAC, and may be seen until the fair closes Saturday, November 17.



A table top exhibit on the OAC centennial is available for faculty to use when speaking off campus. Anyone wanting to publicize the centennial may borrow the exhibit by contacting Max Kurp, supervisor of OMAF's exhibit service at Ext 3325. It can be used alone or as part of a larger exhibit with other material available from Mr. Kurp.

## FACULTY ACTIVITIES

**Professor John Wickham**, English, read a paper entitled the emergence of Swiftian satire in *The Battle of the Books* at the Samuel Johnson Society meeting held in Victoria, B.C.

**Professor K. J. Duncan**, chairman, Sociology and Anthropology, presented an invited paper to the energy symposium of the Royal Society of Canada entitled problems of native peoples.

Zoology professors **R. J. Brooks** and **D.L.G. Noakes** and graduate student **Robert Steele** recently attended the meeting of the Animal Behavior Society at Miami University, Oxford, Ohio. During the meetings they observed a demonstration of typical intensity consummatory behavior in the chestnut-headed Marsh Wren (*Var. Rex*). Professor Brooks and Professor Noakes also participated in several discussions on research and teaching methods in ethology.

**Professor Richard R. Forster**, Landscape Architecture, participated in a Social Science Research Council of Canada sponsored Interdisciplinary Research Symposium on Management of Public Lands in Canada, held recently in Ottawa, and presented a paper entitled, Canadian national parks and equivalent reserves: research for management.

**Professor T. H. Lane**, Land Resource Science, participated in an Introductory Course for Inexperienced Farmers at London, Toronto, and Guelph.

**Professor D. E. Elrick**, Land Resource Science, attended the Council of the University Departments of Geology, (Ontario) meetings held at Brock University.

**Professor T. H. Lane**, Land Resource Science, lectured to senior students at Centralia C.A.T. in their Environmental Program.

**Professor J. D. Bandeen**, **Professor G. W. Anderson**, Crop Science; **Professor C. M. Switzer**, **Professor G. R. Stephenson**, Environmental Biology; and **Professor C. W. Waywell**, Horticultural Science, attended the annual meeting of the Eastern Section of the Canada Weed Committee in Quebec City. All are project summarizers and committee members. Professor Bandeen is chairman of Research Planning.

**Dr. Leslie Henderson**, Psychology, will be on leave of absence at the Department of Psychology, University of Reading, England, until September 1974.

**Professor Gordon Couling**, Fine Art, was the speaker at the Noon Hour Lecture Series at the Kitchener Waterloo Art Gallery. His topic: Unique Architecture of Central Ontario.

**Professor R. B. Hunter** and **Professor K. R. Stevenson**, Crop Science, recently visited corn research stations in Germany and Yugoslavia. Professor Hunter presented a seminar on the effect of photoperiod and temperature on corn development at the University of Berlin. While in Yugoslavia Professors Hunter and Stevenson attended the 7th European Association for Research and Plant Breeding meetings where Professor Hunter presented a paper on photoperiod and temperature effects on corn development.

**Professor G. Leibbrandt**, Mathematics and Statistics, read a paper entitled, On an extension of the principle of dimensional regularization at the annual eastern regional meeting of the C.A.P. in Ottawa.

**Dr. D. H. Stott**, director of the Centre for Educational Disabilities, gave an open address entitled, the heritability of intelligence: some implications from population-control theory, and seminars on learning disability and the teaching of mathematical concepts in the Department of Educational Psychology at the University of Calgary. Dr. Stott also gave the keynote address on how we should teach children to read, to the annual conference of the special education section of the Alberta Teachers' Association in Calgary.

**Professor R. W. Irwin**, Engineering, organized the 5th drainage engineers' conference sponsored by the School of Engineering. Held in London, the event attracted 100 people.

**Professor R. M. Epand**, Chemistry, attended the 4th International Conference on Atomic Spectroscopy, in Toronto. He presented a paper entitled, New thermal transitions in Poly-L-Lysine and chaired a session on circular dichroism and biopolymers.

**Professor Dan Yarmey**, Psychology, presented a paper on associative learning of pictures and words at the annual conference of the Psychonomic Society held in St. Louis, Missouri.

**Professor V. J. Matthews**, Languages, presented two illustrated lectures at the university, one on two springs in Roman Spain, to the Mid-Western Ontario Classical Association and the other on the second season of the university's archaeological excavation, part of the Arts at Noon Series.

**Professor J. T. Powell**, director of the School of Physical Education, has again been included in the publication *Leaders in Education*, published by Jaques Cattell Press in Tempe, Arizona.

**Professor J. W. Tanner**, Crop Science, presented a seminar to the agricultural division of Monsanto Corp. in St. Louis, Missouri.

**Marion Cameron**, **Joan Johnston**, **Bernard Katz** and **Rosemary Watkins**, Library, attended the recent Colloquium II - Canadian Bibliography, held in Toronto by the Bibliographical Society of Canada.

**Professor M. L. Matthews**, Psychology, and **Charles D. Bernholz** presented papers at the recent Psychonomic Science Conference in St. Louis, Missouri. Also attending were: **Professor R. W. Barron**, **Professor R. W. Gatehouse**, **Professor. A.D. Yarmey**. **Professor H.M.B. Hurwitz** chaired a meeting.

**Professor Gene Chu**, Fine Art, had his lithograph "The Broken Window" selected for Folio Seventy Three, an International Exhibition of Prints organized by the California College of Art and Crafts World Print Competition in cooperation with the San Francisco Museum of Art. Over 7,000 entries from printmakers around the world were judged by Riva Castleman, curator of prints and illustrated books, Museum of Modern Art, New York; Masayoshi Homma, Director, National Museum of Modern Art, Tokyo, Japan; and Zoran Krzysnik, Director, Moderna Galerija, Ljubljana, Yugoslavia. The jury selected 103 works to make up the exhibition to be held at the San Francisco Museum of Art from Nov. 14, 1973 - Jan. 6, 1974.

**Professor J. H. Clark**, **Professor Dick Trimble**, Agricultural Economics and Extension Education, and **Jay Strom**, Canfarm, attended OMAF's estate planning workshop at Oshawa, and held a discussion with the OMAF specialists concerning possible computer applications of estate planning problems for farmers.

## PUBLICATIONS

Milne, F.J. and R. A. Swanwick, 1973. The non-suturing of parietal peritoneum in abdominal surgery of the horse. *Veterinary Record*, 93: 328. (Clinical Studies)

Henry, P.M., 1973. Palladium (II)-catalyzed exchange and isomerization reactions. IX. The hydration of enol acetates in wet acetic acid. *Journal of Organic Chemistry* 38: 2766-2770. (Chemistry)

McAlpine, R.D., Michael Cocivera, and E. Chen, 1973. Photo-oxidation and reduction of ascorbic acid studies by E.S.R. *Canadian Journal of Chemistry* 51: 1682-1686. (Chemistry)

Chen, H.E., Arend Groen and Michael Cocivera, 1973. Photochemistry of pivalaldehyde in solution studies by CIDNP. *Canadian Journal of Chemistry* 51: 3032-3038. (Chemistry)

Fyfe, C.A., Michael Cocivera and Sadru W.H. Damji, 1973. High resolution nuclear magnetic resonance study of chemical reactions using flowing liquids: the kinetic and thermodynamic intermediates formed by the attack of methoxide ion on 3,5-dinitrocyano-benzene. *Chemical Communications*, 1973, 743-744. (Chemistry)

Milne, F.J., 1973. General surgical considerations, the lead chapter in *Large Animal Surgery*, edited by Oehme and Prier. Published by Williams and Wilkins, Baltimore, Maryland. (Clinical Studies)

Major, D.J., R.B. Hunter, L.W. Kannenberg, and J. W. Tanner, 1973. Effects of population density on the relationship between inbred and single cross yield performance of corn. *Can. J. Plant Sci.* 53: 533-536. (Crop Science)

Voisey, P.W., H. B. Heeney, and I.L. Nonnecke, 1973. The effect of variety on the relationships between readings from instruments for measuring pea maturity and tenderness. *Engineering Research Service, Rept. 6820-4*. Agriculture Canada, Ottawa. (Horticultural Science)

Voisey, P.W. and I.L. Nonnecke, 1973. Some observations regarding pea tenderometer standardization. *Rept. 6820-5*. Eng. Res. Service, Agr. Can., Ottawa. (Horticultural Science)

Lotter, V., 1973. Autistic children in England: a follow-up after eight years. B. S. Brown and E. F. Torrey (Eds). *International Collaboration in Mental Health*. U. S. Dept. Health, Education and Welfare. (Psychology)

Henderson, L., 1973. Straw men in noise fields: a reply to Coltheart E. Arthur. *Quarterly Journal of Experimental Psychology*. 25: 440-41. (Psychology)

Amer, M.A. and A. N. Myhr, 1973. Modification of butter to improve low temperature spreadability. *Can. Inst. Food Sci. Technol. J.* 6: 261-265. (Food Science)

Bligh, J., 1973. The women in the Hamlet story. *Dalhousie Review*, 53: 275-85. (English)

George, J. C. and K. Ronald, 1973. The harp seal, *Pagophilus groenlandicus* (Erleben, 1777). XXV. Ultrastructure and metabolic adaptation of skeletal muscle. *Canadian Journal of Zoology*. Vol. 51, No. 8, pp. 833-840. (Zoology)



## FACULTY ACTIVITIES

**Professor P. A. Egelstaff**, Physics, visited the chemistry departments at Stanford University and Berkeley campus of the University of California to give an invited seminar entitled, The structure of simple molecular liquids. Professor Egelstaff also visited Vancouver to discuss the use of the TRIUMF accelerator by the University of Guelph Neutron Scattering Group.

**Professor J. H. Clark**, Agricultural Economics, attended the Canadian Banker's Association agricultural credit conference in Winnipeg.

**Professor John B. Black** participated in the recent conference on Canadian Information held at Montebello, Quebec.

**Professor R. B. Hunter** and **Professor K. R. Stevenson**, Crop Science, spoke to feed mill managers of Maple Leaf Mills recently. Their presentations dealt with choosing corn hybrids and the handling and storage of corn.

**Dr. Tim Josling**, visiting professor in Agricultural Economics in the winter semester, has been appointed to a new chair in Agricultural Economics at Reading University.

**Professor T. K. Warley**, Agricultural Economics, attended a conference in Ottawa on Canada and the European Economic Community sponsored by the Canadian Institute of International Affairs.

**Professor D.A.L. Auld**, Economics, presented a paper entitled A theory of government - induced inflation, to the Department of Economics, University of Manchester.

**Professor Hank Davis**, Psychology, presented a colloquium at the University of Rochester entitled, An analysis of the dynamics of escape behavior.

## PUBLICATIONS

Kaiser, Carlos, E., 1973. Interrelationship amongst the avian orders, Galliformes, Columbiformes, and Anseriformes as evinced by the fibre types in the pectoralis muscle. *Can. J. Zool.* 51: 887-892. (Zoology)

Booth, Michael R., 1973. The metropolis on stage, in *The Victorian City: Images and Reality*, Routledge and Kegan Paul, 2 vols, 211-224. (Drama)

Subrahmanyam, N.C., and K. J. Kasha, 1973. Selection chromosomal elimination during haploid formation in barley following interspecific hybridization. *Chromosoma*, 42: 111-125. (Crop Science)

Sadasivaiah, R.S., and K. J. Kasha, 1973. Non-homologous associations of haploid barley chromosomes in the cytoplasm of *Hordeum bulbosum* L. *Can. J. Genet. Cytol.* 15: 45-52. (Crop Science)

Milne, F.J., 1972. Equine abdominal surgery in retrospect. *Equine Vet. J.*, 4: 175. (Clinical Studies)

Voisey, P.W. and I.L. Nonnecke, 1973. Measurement of pea tenderness. *Journal of Texture Studies.* 4: 171-195. (Horticultural Science)

Powell, J.T., 1973. 1. Address to the Delegates, 2. Summaries of set topics. *International Olympic Academy Proceedings, 1972.* 30-33 and 165-272. (Human Kinetics)

Galina, Miguel A. and Robert D. Whiteford, 1972. Estudio electroencefalografico del potencial de la corteza visual y formacion reticular en el felino domestico (reporte preliminar). (Electroencephalographic studies of the visual cortex potential and the reticular formation in the domestic cat). *Arquivos do Instituto Benjamin Baptista (Brazil)* XV: 349-353. (Biomedical Sciences)

## CAMPUS BRIEFS

### Trophy lost

The homecoming trophy has been lost, and since this year's float contest was tied, the homecoming committee would like to locate it to give to one of the winners. A new trophy was purchased last year, but it is felt the old one has been misplaced and is still someplace on campus. Call Tom O'Grady at 821-4043 if you know where it is.

### Hindu cultural society

Swami Bhoomananda Tirtha will speak on self-realization and god-realization through meditation on November 18 in Arts 118. "Mataji" will sing devotional music. The meeting, sponsored by the Hindu cultural society, will be at 11 a.m.

### Craft show

Craftsmen from campus, town and area will set up displays of their pottery, silversmithing, leatherwork, macramé, wood blocking, weaving, candlemaking and banjo making at the East residences on Saturday, November 17. There will be music and food with the emphasis on health foods including yogurt making, granola and old-style hearth baked breads. The main lounge and concourse of the residences will be used for the displays.

### College women's dance

A special evening sponsored by the College Women's Club and the Faculty Club is planned for Friday, December 7. "It's a small small world" is the theme of the evening of dancing and games of chance. The \$3.50 ticket includes the cost of food and prizes. Music will be provided by the Glenn Street Trio. Tickets are only available at the Faculty Club.

### Articles for disposal

Surplus Stores have the following articles available on a closed bid basis with a reserve applying on everything but stoves and refrigerator: steel refrigeration cabinet less motor and compressor; wooden cupboard (needs a top); Underwood forum typewriter; Underwood manual typewriter; Frigidaire 4-burner electric stove, volts 115/230; Frigidaire refrigerator; Windsor stove 23" wide; hutch like cupboard; 18 drawer card file cabinet, 4" x 2" card size; 15 drawer reference card cabinet, 5" x 3" card size; 3 - Spencer American optical microscopes w/light sources, w/10X, 44X, 95X, Ocular 10X, w/case at \$75.00 each; Spencer American Optical w/mirror for \$65.00; 4 - carrying cases for microscopes at \$5.00 each.

Anyone requiring more information, phone Ext. 2105 between 9 and 12. Bids close at noon hour Friday, November 23.



Robert H. Hall is the 1973 recipient of the Allied Chemical Canada, Limited, award. The silver tray and scholarship in the amount of \$750 are awarded annually to a student entering the final year of undergraduate studies in an honors chemistry program. From left are Professor A. K. Colter, chairman of the Department of Chemistry; Sean O'Sullivan, and Don Brown, both representing the company; Mr. Hall and Dean E.B. MacNaughton.

## Eugene Whelan here

Canada's minister of agriculture, the Hon. Eugene Whelan will speak on the food supply situation in a public lecture on campus, Friday, November 30. The lecture will be held at 4 p.m. in Physical Science 105.

## Multi media presentation

A multi-media presentation produced here was featured at the joint conference of the Textile Institute (UK) and the Institute of Textile Science, Canada in Ottawa. The presentation provided an introspective look at the textile industry's control of wastes. Professor Keith Slater, Consumer Studies, was research advisor and Leslie Richards, Audio Visual Services, was writer-producer. The Ministry of the Environment of Ontario provided funds for the project. Invitations for further presentations have been received from the Ministry of the Environment for Ontario and the Chemical Association of Textile Chemists and Colorists of Quebec.

## U of G choir concert

The autumn concert by the University of Guelph Choir will be presented on Wednesday, November 28. This year conductor Nicholas Goldschmidt has chosen choruses from Haydn's Nelson Mass, Schubert's Mass in G, Mozart's Mass in C minor, and Handel's Acis and Galatea. Also on the program will be Canadian folk songs as arranged by Derek Healey. The soloists will be Jean Edwards and Nickolaus Kaethler. The 80-voice choir, which includes undergraduates, graduates, staff and faculty, is truly representative of the whole university. Tickets are available from Central Box Office (Ext. 3940) or from members of the choir.

## St. Andrews scholarship

A new scholarship just announced by the University of St. Andrews in Scotland is for males of Scottish descent. The award which covers tuition and other fees, residence, travel to and from St. Andrews and a personal allowance, will be made for three years for an ordinary degree candidate or four years for an honors degree candidate. Applicants must be male, of Scottish descent or the sons of St. Andrews graduates, under 21 and residents of Ontario or Quebec. They must be attending a recognized university or institution of equivalent status. The scholarship money will come from a trust being set up by Mrs. Charles Stuart McEuen, formerly of St. Andrews and now of St. Jovite and Ottawa, and her daughter Mhairi. Applications must reach St. Andrews by the end of the year. Forms are available from the awards office. The scholarship is called the McEuen St. Andrews Scholarship.

## Volunteers wanted

Volunteers are needed for the developmental class at Sunnyside School, 84 Kensington Street. The 9 a.m. to 3 p.m. school day provides a full program for the mentally and physically handicapped children. Help is needed for various times during the day including the lunch hour when some children need help with meals. Volunteers are also needed to supervise children on the bus to and from school from 8:15 to 9:15 a.m. and 2:45 to 3:45 p.m. Drivers are also needed to transport volunteers to and from Sunnyside School. If you have some time to spare, even a few hours a week, please contact Beverly Peterson at 823-2075.

## Residence positions

Resident assistant applications for the winter semester are available from Student Affairs, and must be submitted by November 21. This volunteer position is open to students who have lived in residence at least one semester. The experience participating in house advisor training programs and working with a senior house advisor is good preparation for the position of house advisor.

## Senate appointments

The following teaching faculty have been elected to senate from the College of Physical Science: J. Law, Physics and H. J. Suderman, Chemistry.

## 1974 parking

The following procedure will apply to the registering of staff and faculty vehicles for the period from January 1 until December 31. Full time regular staff and faculty members, entitled to payroll deductions, will have their new permits forwarded to their departments after November 23. The parking fee for the calendar year is \$42.00, payable in monthly pay deductions of \$3.50. Anyone who does not wish to re-register must advise the Parking Administration Office, Room 11, Johnston Hall before November 16 in writing. Anyone not eligible for payroll deductions or who wishes to pay cash may apply for a parking permit in person after November 12. The fee may also be paid by cheques, one when the permit is picked up, one dated May 1, and another dated September 1. For further information please contact the Parking Administration Office at Ext. 2118.

## Community workers

A meeting for professional and volunteer people who work in the Guelph community will be held Thursday, November 15, from noon until 1:30 at the Steelworker's Hall on Dawson Road. A meal is available.

## Arts at noon

Norman Jewison, Film Maker, a candid study of a film director in action working under pressure to produce a new blockbuster for the entertainment industry, will be shown at the Arts at Noon series Wednesday, November 21, at 12:10. Toronto-born Norman Jewison first gained prominence producing for Canadian television, then went on to greater success making Hollywood theatrical features (The Russians are Coming, In the Heat of the Night, and others). In this 50 minute National Film Board production, he is seen directing a large international cast and crew in the film version of the Broadway/London musical hit, Fiddler on the Roof. Shooting takes place in Yugoslavia and between scenes, Jewison talks freely to NFB director, Doug Jackson about many aspects of the film industry and some of his experiences in it. This film replaces the advertised "Le Mime," which was unavailable.

## Thursday noon hour concert

Pianist Monica Gaylord will give the Thursday noon hour concert November 22. She is one of Canada's most exciting and musically sensitive concert pianists. Although only twenty-four, she already has an impressive list of performances to her credit including a 1964 New York Town Hall debut with orchestra. As a piano soloist, she has played with the Orchestra of America, Hofstra Symphony Orchestra, Performing Arts Symphony, Eastman-Rochester Symphony, the Toronto Symphony, as well as with the CBC Talent Festival Orchestra on the national network. Her program will include works by Brahms, Nathaniel Dett, Debussy and Beethoven. Concerts are held at 12:10 and 1:10 in Music Room 107 Arts.

## Auction sale

An auction of such lost articles as bikes, watches, books, clothing and jewellery will be held in the Gryphon Room at 7:15 p.m. on Thursday, November 22. Auctioneer J. D. Hannan will auction articles that have been found and turned over to the university's safety security department. Proceeds will be donated to the formation of a University Police Lost and Found Bursary Scholarship fund.

## Bulletin material

Items for the News Bulletin must be in the Department of Information office, Room 361, McLaughlin Library, by noon the Friday before insertion. The News Bulletin does not accept material over the phone.

# NEXT WEEK AT GUELPH

THURSDAY, NOVEMBER 15

**Art** — JIM DINE GRAPHICS. Exhibition continues in McLaughlin Library to November 28.

**Biology Hour** — DYNAMICS OF MALE DOMINANCE IN A BABOON TROOP, Quentin Brown, director, Instructional Media, U. of Manitoba. Film and talk. 12 noon, Botany-Genetics/Zoology 130

**Music** — I FOR JAMES AND JOHN MCCABE, French Horn and Piano. 12:10 to 12:45 and 1:10 to 1:45 p.m. Music Room 107, Arts.

**Seminar** — GEOLOGY AND RELATED SOCIAL EFFECTS IN ICELAND, Dr. A. Morgan, University of Waterloo, 3:10 p.m. Soils 124.

**Lecture** — CHRISTIAN PERSPECTIVES AND RESPONSIBILITIES AND THE DEVELOPMENT OF CANADIAN PENOLOGICAL PRACTICES, Dr. Maurice Flint, coordinator of chaplaincy services for the Ontario Civil Service Commission, 8 p.m. Arts 119, sponsored by the Guelph graduate Christian fellowship.

**Lecture** — THE PSYCHOLOGY OF ELEGANCE, Professor Norma Bowen, Psychology. Last of the In Search of Elegance series. \$1 at the door. 8 p.m. Music Room 107, Arts.

**Seminar** — INFORMATION PROCESSING IN THE RETINA, Dr. Robert B. Barlow, Jr., Syracuse University laboratory of sensory communication, 2 p.m., Physical Science 101.

**T.V.** — SPOTLIGHT ON UNIVERSITY OF GUELPH, 6:15 p.m. Cable 8.

**Radio** — HEIDELBERG HI-LITES, University of Guelph news program. CJOY 1460, 6:20 p.m. Monday — Friday.

## FRIDAY, NOVEMBER 16

**Film** — FABULOUS AFRICA, Audubon Wildlife Films, season ticket or \$1 admission at the door. 8 p.m. War Memorial Hall.

**Social** — UM-PAH-PAH BASH, featuring Hugo Meissner and his Continentals. 8:30 — 1 a.m., sponsored by International Students' Association. Members, 50¢, others 75¢.

**Worship** — MUSLIM JUMA PRAYER, 12:30 p.m. Arts 312.

**T.V.** — SPOTLIGHT ON UNIVERSITY OF GUELPH. Cable 8 at 5 p.m.

## SATURDAY, NOVEMBER 17

**Exhibit** — LOCAL CRAFTSMEN DISPLAY AT EAST RESIDENCES, noon — 6 p.m., See story p. 7.

**Sports** — HOCKEY, WINDSOR AT GUELPH. Guelph Memorial Gardens. 2 p.m.

**Worship** — MUSLIM ZUHR PRAYER, 1 p.m. 9th floor Arts.

## SUNDAY, NOVEMBER 18

**Worship** — ANGLICAN EUCHARIST, (United Church students welcome), 9:30 a.m. 9th floor lounge, Arts; R. C. MASS, 11 a.m., War Memorial Lounge; PUJA, sponsored by the Hindu Cultural Society, 11 a.m., 8th floor lounge, Arts.

**Film** — ALICE'S RESTAURANT, (1970). 2:30 and 7:30 p.m. War Memorial Hall. Cine-Series film. Adm. 50¢.

## MONDAY, NOVEMBER 19

**Meeting** — SOIL FERTILITY PROFESSIONAL DEVELOPMENT. Contact: E. Beauchamp, Land Resource Science.

## TUESDAY, NOVEMBER 20

**Seminar** — THE SOILS OF GHANA AND SOME RELATED PROBLEMS, Dr. E. Thompson, Ghana, visiting professor with Land Resource Science. 3:10 p.m. Land Resource Science 229.

**Seminar** — LIGHT SCATTERING AND THE ELASTIC PROPERTIES OF THE RARE-GAS SOLIDS, Dr. B. P. Stoicheff, Department of Physics, U. of T., 4 p.m. Physical Science 113.

**Meeting** — OMAF CROP PROTECTION COMMITTEE, Animal and Poultry Science/Nutrition 141. Contact: C. B. Kelly and J. C. Sutton, Environmental Biology.

**Meeting** — JEWISH SOCIETY. 8 p.m., 9th floor lounge, Arts. All interested persons welcome.

**Meeting** — UKRAINIAN CLUB GENERAL MEETING, 7:30 p.m. Arts 305.

**Meeting** — UNIVERSITY OF GUELPH SENATE. 8 p.m. Physical Science 113.

**Meeting** — UNIVERSITY OF GUELPH DUPLICATE BRIDGE CLUB, 7:45 p.m., Computer Science 116. Beginners welcome.

**Worship** — R. C. MASS. 12 noon, Newman Centre, 325 Gordon St.

**Meeting** — FELLOWSHIP GROUP. 8 p.m. Arts 306. All welcome.

## WEDNESDAY, NOVEMBER 21

**Lecture** — INTERFACIAL ELECTROCHEMICAL PHENOMENA IN TISSUE GROWTH AND REPAIR, by Dr. A. A. Pilla, Columbia University. 4:10 p.m. Chem.-Micro 260.

**Lecture** — LANGUAGE AND STYLE, Dr. H. A. Gleason, Centre for Linguistic Studies, U of T. 11 a.m. Arts 118.

**Meeting** — CUSO INFORMATION, featuring CUSO IN GHANA and comments by Prof. S. Fushtey who recently travelled in Africa under CUSO auspices. 8 p.m. Physical Science 113.

**Arts at Noon** — NORMAN JEWISON — STUDY OF A FILM DIRECTOR IN ACTION, NFB film, 12:10, Music Room 107 Arts.

**Drama** — L'AVARE, by Molière. 2 and 8 p.m. War Memorial Hall. General admission \$3, students \$2. Tickets available from Central Box Office.

**Film** — LIST OF ADRIAN MESSENGER (1963). Free Film Theatre. 8 p.m. War Memorial Hall.

**Worship** — ANGLICAN EUCHARIST. (United Church Students welcome). 12 noon, Macdonald Hall 238.

**Meeting** — U. of G. HOMOPHILE ASSOCIATION. 8 p.m. Arts 311.

## THURSDAY, NOVEMBER 22

**Biology Hour** — 'STRESS! EFFECT ON UNBORN' — so treat her gently! by Professor K. Myers, Zoology. Biology Hour series. 12 noon. Botany, Genetics/Zoology 130.

**Music** — MONICA GAYLORD, piano. 12:10 to 12:45 and 1:10 to 1:45 p.m. Music Room 107, Arts. Noon Hour Series.

**Worship** — R. C. MASS, 12 noon, Newman Centre, 325 Gordon St.

## FRIDAY, NOVEMBER 23

**Seminar** — NUTRITION, A NATIONAL PRIORITY, report of the Nutrition Canada Survey by national coordinator Dr. Z. I. Sabry, 11 a.m. Macdonald Institute 106.

## KEEP THESE DATES

**November 24** — FACULTY CLUB CHILDREN'S CHRISTMAS PARTY.

**November 30** — EUGENE WHELAN, CANADA MINISTER OF AGRICULTURE speaking.

**December 7** — COLLEGE WOMEN'S CLUB AND FACULTY CLUB SOCIAL.

## JOB OPPORTUNITIES

*New Listing as of Nov. 9, 1973.*

*Secretary to the Director*, Food Industry Research Institute. Salary grade 5. Salary range: \$112 - \$148.

*Secretary to the Chairman*, Crop Science. Salary grade 5. Salary range: \$112 - \$148.

*Senior Cooks*, Food Services. Salary range: \$3.40 - \$4.65.

*Library Assistant*, Book Processing. Salary Grade 1. Salary range: \$78 - \$102.

*Laboratory Technician*, Biomedical Science. Salary grade 7. Salary range: \$135 - \$178.

*Animal Health Technician (Temporary)*, Pathology. Salary grade 6. Salary range: \$123 - \$163.

*Mail/Messenger Clerk (2 positions)*, Communication Services. Salary grade 2. Salary range: \$85 - \$112.

*Laboratory Assistant (Grant)*, Animal and Poultry Science. Salary: \$2.00 per hour.

*Secretary to the Chairman*, Sociology and Anthropology. Salary grade 4. Salary range: \$103 - \$136.

*For further information please see Bulletin Boards or call Extension 3058 or 3059.*

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**NEWS  
BULLETIN**  
UNIVERSITY OF GUELPH