BRAZILIAN VICE-CHANCELLOR VISITS

Recent visitors to the University were Professor Ataulfo Marques Martins de Losta, Rector (Vice-Chancellor) and Mr H. Magalhaes of the Universidade Federal de Uberlandia.

The Universidade Federal de Uberlandia is one of 270 universities in Brazil. It is located in central Brazil and is a similar size to the University of Newcastle.

The purpose of Professor de Costa's visit was twofold. Firstly, Professor de Costa proposed to Professor Ken Dutton in Professor Don George's absence that a formal exchange programme be established between the two Universities. This exchange programme would involve an exchange of academic staff and students, exchanging information and collaboration in research.

The Universidade Federal de Uberlandia has a close relationship with the Department of Electrical and Computer Engineering here. In fact, one of the main reasons Professor de Costa chose to visit the University is because two teachers from his University have leave of absence to take their PhD courses here. They are Jose and Marcia Fernandes. Jose is working in the Department of Electrical and Computer Engineering on the estimation of deterministic disturbances in noise whilst Marcia is enrolled in the Department of Linguistics studying the interaction of structures of discourse in listening and speaking skills. The second reason for Professor de Costa's visit was that he is interested in exploring the possibility of establishing a company such as TUNRA in his own University.

Whilst this University was the only university that Professor de Costa visited in Australia, it is just one of the universities that he has visited in this trip around the world. The Universidade Federal de Uberlandia has informal contacts with a number of other universities in the world and Professor de Costa has also proposed a formal link between his University and universities in Spain, Germany, Switzerland and Japan.

Professor de Costa presented an amethyst from his state in Brazil to the University.

One interesting thing that Professor de Costa pointed out was that he has a four-year tenure as Vice-Chancellor. In his particular case his tenure has been extended to eight years but this is extremely unusual. At the end of this time the University will recommend a number of persons to the Government and the Government will select the next Vice-Chancellor.
Health Care and Education - the Issues

This year the Annual Dick Gibson Memorial Lecture was presented by the Honourable Neal Blewett, MP, Federal Minister for Health on the topic: The Role of Medical Education in Responding to Health Needs in Particular as It Relates to Geriatrics.

He began the lecture by making three points: Firstly, that the vast explosion in the content of medical knowledge has not been accompanied by necessary changes in pedagogical structures and styles. Secondly, that the pattern of illness in our society is increasingly dominated by the diseases of affluence and the health problems of old age and thirdly, that the changing pattern of health status the emphasis needs to be on preventive medicine and the promotion of healthy living.

He went on to say that each of these changes demands a response from medical education but that our medical schools have tended to remain conservative and that the public health revolution has not yet taken place in Australia.

He stated that geriatric medicine hardly gets a high priority. He did note however, that Newcastle University had taken up one challenge in their undergraduate medical courses by providing an "ageing block" during the fourth year of the five year course.

The Honourable member stated that the challenge to change makes it imperative that an inquiry be held into medical schools have tended to remain conservative and that the public health revolution has not yet taken place in Australia. He went on to say that each of these changes demands a response from medical education but that our medical schools have tended to remain conservative and that the public health revolution has not yet taken place in Australia.

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Control of Marsupial Reproduction

John Rodger, Lecturer in the Department of Biological Sciences, is seeking an ARGS grant of $25,000 and has received a University of Newcastle Senate Research Committee grant of $8,000 to develop the methodology needed to control marsupial production with the precision that is now possible for a variety of other mammals such as laboratory and farm animals, and humans.

John is ultimately interested in understanding the early development of marsupials on a cellular and molecular level. To achieve this it is critical that artificial breeding techniques be developed.

Initially he has chosen the brush tail possum Trichosurus vulpecula to work with. The first problems facing John are how to collect and store male sperm and how to induce females to produce useful numbers of eggs in a predictable manner.

The first of these problems has been largely solved whilst the latter is being attempted using hormone treatments.

Marsupials differ in a number of ways from the familiar eutherian or "placental" mammals (e.g. cows, sheep, man) and an understanding of these differences is likely to increase knowledge about reproduction and development.

In eutherian mammals the egg is very different from all other animal groups as it has a very thick coat. This has resulted apparently, in the sperm changing to a unique form to enable it to penetrate and fuse with the egg cells. The marsupial egg has a much thinner wall. So the question arises as to how the sperm and the egg cells meet and fuse in marsupials and what are the critical factors in their subsequent embryonic development.

Marsupials have a very short pregnancy or gestation period (three weeks for a kangaroo) and produce young which are only half formed when compared to eutherian mammals. These young are totally dependent upon their mothers and spend a long period of time growing in the pouch suckling milk.

Further, marsupials appear not to even make full use of their short gestation. For the first two-thirds of this period very little growth occurs, then the fetus undergoes rapid growth. In eutherian mammals the rate of fetal development is largely constant throughout gestation. When born young marsupials have a very highly developed front end which enables them to find the pouch and they have very rudimentary back legs (this is even true for kangaroos). The front end then regresses and changes to a front end we would recognise and the rest of the body develops while the young is suckled in the pouch.

Other questions of interest are what happens if there are faults in fertilisation and development such as an extra chromosome introduced at the time of fertilisation. In eutherian mammals even simple events result in defects or embryonic death (e.g. Down's Syndrome in Humans) whilst in lower orders such as fish and in plants it is often beneficial. Similarly, in eutherian mammal chromosomes from a sperm are needed for normal development to take place. Whilst in fish and reptiles a virgin egg can be induced to develop through human interference. Producing an essentially normal individual.

Though a greater understanding of marsupial fertilisation and development we will be better able to breed zoological park animals and/or rare and endangered species as well as expanding significantly our understanding of mammalian development generally.

Invitation

To

An Evening For

University Staff

(and family) -

children most welcome
to visit Supernova and preview our:-

- New Modules:
- Square Wheel.
- Laser.
- Holograms.
- Pipes of Pan.

Come and enjoy the experience of hands-on science. Wine and cheese will be available.

Thursday October 16,

5.30 - 7.30 pm

Supernova is situated on the Second Floor of the old Store building, 854 Hunter Street, above the Pink Elephant Markets.

Professor U. Fulleborn, Head of Department of German at the University of Erlangen-Nurnberg recently presented a paper entitled:Die Zeit von Ansang. Der Literarische Mythos der Frauenherrschaft (Kleist, Brentano, Grillparzer) to the Department of Modern Languages. Professor U. Fulleborn is pictured with John Stowell (L) and Assoc. Professor Barthofer (R) of the Department of German.
Ray Reynolds is from the Printery and is a familiar face to many of us around the University.

At present Ray has reason to be proud. He has a hobby which has brought him a great deal of success over the past year. His hobby is the growing of cymbidium orchids. Ray first became interested in growing orchids 30 years ago when he accompanied his mother to an orchid show and joined the Newcastle Orchid Society. Ray then became a foundation member of the Maitland Orchid Society. He got married and as he moved around he gave away his orchids and forgot about his hobby.

Three years ago after a 25-year spell Ray again took up the hobby of orchid growing. He started with small plants and has got them established so that this year he had his first showing of orchids. Ray initially entered the Newcastle Combined Orchid Society Winter Show and won a First and three Seconds. Ray next entered his orchids in the Newcastle Orchid Society Show where he gained four Firsts and a Second to give him the Novice Champion, the Best Novice and the Reserve Champion in the cymbidium category.

Because of this great success Ray will next year have to enter his orchids in the Open Division. More recently, Ray entered his orchids in the Maitland and Coalfields District Orchid Society Show and the Newcastle Combined Orchid Society Spring Show. Again he was successful winning two Firsts in the former and two Firsts and one Second in the latter.

Ray has done a great deal of research to develop a suitable compost and fertiliser regime for his orchids and feels this has paid off. He is still experimenting with insect and fungus control and as he wants to build up his award material he must continue to buy new hybridised stock. To finance this Ray hopes to be able to provide orchid plants and flower sprays for sale next year.

Staff Honoured

Professor Beverley Raphael of the Psychology Department and Professor Clem Tisdell of the Economics Department have been honoured by their election as fellows to the Academy of Social Sciences. In all 10 new Fellows were elected one of whom is Dr G. S. Halford, a graduate of this University and a member of the academic staff from 1965 - 1972. Dr Halford is currently Reader in Psychology at the University of Queensland. The recognition of the research of these scholars is a matter for congratulation to them and adds to the research reputation of this University. Look for a follow up article in another edition.
Jack Marshall, Director of Educational Research for the Family Medicine Programme, Royal Australian College of General Practitioners, visited the University early in October.

Dr Marshall has been involved with the University over the last four years in a research project. The project relates to patient management problems and has been designed to determine diagnostic reasoning of doctors and how they put their information together to come up with an answer. This study has been done in conjunction with similar studies in Sydney, Papua-New Guinea and Western Australia.

The present grant will allow the researchers to collect data on the strength behaviour of a large number of masonry bricks. The researchers will then be looking at how the material actually behaves under compression.

At the moment design specification is over conservative to ensure safety. Thus this project will be significant as more realistic rules for design of heavily loaded masonry walls will be introduced. This will enable more economical masonry structures to be built.

The present grant will allow testing of masonry structures in piers. At a later date the researchers hope to obtain another grant to test the behaviour of masonry in actual walls. When this is done the researchers will be able to relate work done on piers to that on actual walls.

INVESTIGATION OF STRENGTH OF MASONRY WALLS

Dr Adrian Page, Senior Lecturer, in the Department of Civil Engineering and Surveying has recently been successful in obtaining a grant from the National Building and Technology Centre (NBTC) of $18,600.

This is the first year such grants have been awarded. The grant will enable Adrian to carry out collaborative research with Dr Steve Lawrance, a principal research engineer with NBTC. Both Adrian and Steve have had a long-term research interest in masonry structures and both are on the Standards Association of Australia Committee which is preparing the Australian Masonry Standard Code.

The purpose of their study is to investigate how masonry behaves under load. Very few Australian tests have been done in this field. Tests will be carried out in the Department and reproduced at the NBTC to enable the researchers to collect data on the strength behaviour of a large number of masonry bricks. The researchers will then be looking at how the material actually behaves under compression.

The study has looked at problem-solving and its relationship with recall of facts. True/False items based on the content of a problem were asked to see if the participant's knowledge had much relationship with their solution. So far, this study shows that there is little correlation between these two factors.

The study shows that experienced general practitioners were able to determine which medical cases should be further investigated better than final year medical students who had a great deal of factual knowledge. This becomes and important issue in medical care as unnecessary investigation into medical conditions is extremely costly and often medical beds which are in high demand are unnecessarily occupied. This study indicates that the doctors that are best at managing patients are the ones that have good problem-solving abilities. Not the ones with the greatest store of information.

Jack has also been involved with a Viatel Programme. This programme allows information to be transmitted by satellite to a computer terminal. The idea for a Viatel information programme came about due to the Royal Australian College of General Practitioners being concerned about the isolation of its general practice trainees. Jack, together with two colleagues, has put this programme together.

The present programme was opened on August 12 this year and it allows trainees to test themselves on medical problems. They give solutions to the computer which tells them what areas they need to "brush up on". Viatel will be greatly expanded. Eventually, a list of references pertaining to questions will be available. Also it is hoped that the public will be able to access Viatel. Continuing education for general practitioners is now in print form and this will also be put onto Viatel.

For access to Viatel, videotex software on a personal computer is required. The cheapest access costs about $500 for a keyboard and a telephone which uses an ordinary TV as a screen.

The Viatel package is the first of its kind and has generated enquiries world-wide.

Jack mentioned that the trend at present is that the best graduates are going into general practice probably because they find it more challenging than specialisation. Viatel is seen as being particularly important for the general practitioner who has to have access to a broader spectrum of information than specialists require.
Engineering Structures for New Challenges

Structural engineering has a long tradition and, according to Professor Robert Mottershead in his recent Inaugural Address, is based on meeting the challenges thrown up by the availability of new materials and by societal requirements, through appropriate research. Using a two-slide simultaneous presentation, Robert reviewed the range of structures in modern society - from modern lightweight suspended forms and cable stayed bridges to industrial and domestic constructions, before proceeding to outline how structural form had changed enormously with the introduction of "modern" materials such as steel and concrete. Even the traditional material timber had undergone a major revolution in its use as a result of steel fasteners such as nails and bolts and, more recently, high strength waterproof glues. Interestingly, none of these changes had occurred without extensive investment in applied research, something which was not as widely recognised as it might be. Of course, much had also been learnt from experience, principally through structure failure. Thus famous failures such as the Tay Bridge in the United Kingdom, the Tacoma Narrows Bridge in the United States as well as others closer to home, held, at the time, valuable lessons for the profession. Each led to extensive research efforts. Fortunately, for society however, very few structures failed and the danger to human life was (and is) extremely small.

Scientific work now considered to be classic and of fundamental importance to modern engineering was commenced already in the 17th century, not merely out of curiosity but from practical needs. Thus much of the work on strength of materials was founded at that time by investigations into the strength of timber. Later, theoretical descriptions of beam bending and plate action were developed. Initially, such work was not appreciated everywhere by engineers, such that even in the early part of the present century, Waddell - a famous American bridge engineer, saw fit to remark, rather overstating the case:

"Today bridge building is truly a science; only three decades back it was hardly worthy to be termed as art; while 75 years ago, in our country at least, it was not better than a trade."

There is little doubt, however, that many others were somewhat more enlightened. Thus Eads, another famous American bridge engineer, foresaw the possible danger of river boat captains failing to lower their vessel's smoke stacks before passing under the bridge he was designing. Eads allowed for a lower section of his bridge to be damaged without significantly impairing the strength of the bridge as a whole.

Significantly, modern undergraduate courses in Civil Engineering, which encompasses the teaching of structural engineering in most university courses, concentrate on the science of the subject, with only a smattering of the art. This reflects the trend over the last century towards mathematical modelling of structural engineering projects and greater scientifically based understanding of the materials used for their construction.

Turning to the challenges facing structural engineers, Robert noted the ever-present demand for economy of construction and the effect this has had in increasing the complexity of even seemingly simple structures such as factory buildings. More glamorous, but no less demanding were the structures required in space technology, both the vehicles themselves and the earth based service facilities.

Offshore structures, too, are still presenting major challenges. They are very expensive structures, which need to survive in highly hostile, poorly understood environments. Problems had arisen in the Bass Strait platforms due to the wave climate, in the North Sea due to seabed settlements and wave forces and in the North-West Shelf region due to poorly understood foundation properties. With the increasing demand for oil and gas, deeper, cooler waters were being encountered. Thus a major area of interest is that of ice forces and with the effect of cold climate combined with continued wave action.

All these require major investments in research.

One of the currently unrecognised challenges is that of infrastructure repair. Many of the bridges, roads, structures, sewers, water supply systems etc. presently in existence have reached or are reaching their original design life. Wholesale replacement is unlikely to be affordable. Increasing interest is developing in methods for assessment of remaining useful life, for appropriate remedial work and for assessment of appropriate alternatives.

Again, research efforts are being directed towards these challenges.

Robert concluded by noting that there is sufficient evidence that advances in engineering resulted from the interaction of innovation, availability of materials and theoretical understanding. The latter was mostly driven by practical requirements; much of the 19th century development science could be seen this way. The inter-relation between practice and research still holds today and university research in engineering at least, ought to be driven by the needs of industry as much or more than by curiosity, although the latter clearly not to be disdained. Nor were the two mutually exclusive.

PSYCHOLOGICAL TESTING BY COMPUTER

The Psychology Department has established the first fully computerised laboratory for the control of psychological experiments in Australia.

Nine cubicles have been built each equipped with a Commodore 64 micro-computer. These computers communicate with a master terminal so that programmes and data can be transferred between all computers on the network. These computers are linked to the main University computers by a "stand alone" Commodore 128 micro-computer.

The computer network is being used to acquire data for the assessment of individual differences in human abilities. Volunteer subjects will be given conventional psychological tests by the computer and as well as recording the answers the computer will be able to measure response time. Experimental tasks will also be set by the computer. The results obtained will enable the relationship between conventional measures of human ability and those based on experimental tasks to be determined.

This will increase our understanding of the psychological processes which mediate individual differences and their development over time.

At present the software has been written and documented and pilot data is being obtained from volunteer subjects. In the near future the Psychology Department will be using subjects from the wider community including children of various ages in a study of developmental aspects of individual differences in ability.

The micro-computer network has already been used in several undergraduate research projects and has proven to be an effective means of introducing students to the intricacies of experimental control in the psychological laboratory.
The Institute of Behavioural Science has awarded two supplementary scholarships of 
$500 per year to Ding Yibing and Luo Yongdong, postgraduate students from China.

These are the first such scholarships awarded by the Institute to students undertaking a 
PhD. The Institute also assists honours students and individuals travelling overseas to give papers. 
Luo and Ding first met Professor John Keats from the Psychology Department when he was in 
China last year.

As a result of this meeting Luo and Ding applied for and received University of 
Newcastle Postgraduate Scholarships to study mathematical psychology. Before 
coming here Ding completed a Masters degree in Psychology at the Beijing Normal 
University. Ding is working under the joint supervision of Professor John Keats and 
Dr Richard Heath, on computerised adaptive testing.

Luo is doing further research on artificial intelligence here under the 
supervision of Professor Keats and Keedy. Through Luo's research it is anticipated that 
more will be learnt about human intelligence and more sophisticated computers will be able to be built.

Luo is also married but it is unlikely that his wife will be able to join him 
because of the important work she does in China.

Both Ding and Luo feel that they have been offered a great opportunity in being 
able to do research here, as in China the technology and library facilities are not yet 
available for them to carry out such research.

Financially support the University

At present the University is coming under increasing financial pressure if this concerns 
you then you may be interested in providing future support to the University by way of the 
Newcastle Benefactors Fund. This scheme is based on charitable giving through insurance and has been highly successful in raising funds for universities in the USA. By making minimal regular contributions you are able to eventually 
make a substantial gift to the University.

These contributions go toward a life assurance policy which matures at death, the 
University being the beneficiary. The 
Trustee for the fund is the Board of Directors, Convocation Pty. Limited.

All contributions are tax free and you can nominate the area in which you would like to see your contribution spent although the Trustee has the final say.

A number of people have already decided to participate in the scheme. The 
contracts having a face value of $180,000 to date. The most commonly asked 
question is what happens if I cease payment? If this occurs the Trustee can 
terminate the policy and receive a smaller amount than originally planned for or can continue to make the contributions.

For more information please contact Mr Ralph Arvidson at 26 2022.
Eminent French Scholar Visits

Our photograph shows Professor Raimond with staff and students of the Department of Modern Languages. Standing (l. to r.): Jonathan Kirkby, Mrs. Françoise Dawson, Lisa Burrell, Dominica Tannock. Seated (l. to r.): Peter Campbell, Narelle Stokes, Dr. B. R. Dawson, Professor Raimond, Marie Ramskuul, Carmel Quinlan.

On September 30 and October 1 the French Section of the Department of Modern Languages was host to Professor Michel Raimond, Professor of French Literature at the University of Paris-Sorbonne.

Professor Raimond, who is an eminent authority on the French novel, is at present visiting Australian universities on an official French Government cultural mission, and will be travelling as far afield as Perth and Townsville. As a scholar, he is best known for his major study La Crise du roman, published in 1966, and for his textbook Le Roman depuis la Révolution. He has also published studies of Gide, Montherlant, Giraudoux and Proust, as well as the first of a series of volumes to be devoted to the contemporary novel: Le Signe des Temps. He is the editor of the novels of Montherlant, and has just completed an edition of Proust's Un Amour de Swann, a work which readers may recall was recently adapted for the cinema with Jeremy Irons in the title role.

While in Newcastle, Professor Raimond delivered two lectures: one on the comic aspects of Proust's À la recherche du temps perdu, and a second on the French novel since 1968.

$2,500 Prize offered for Safety Slogan

A prize worth $2,500 has been set aside for the winner of a Safety Slogan Competition initiated by the University Safety Committee.

Conditions of Entry

- The competition shall be open to Faculties, Departments, Divisions, Units, Services, Disciplines, Sections, etc., forming part of the University's official establishment.
- Each area of the University's official establishment defined in Condition No. 1 shall be permitted to lodge one entry.
- Slogans shall contain no more than eight words.
- Entries are to be lodged on entry forms, available from the Property Division, placed University Safety Slogan and forwarded to the University Safety Officer, Mr. M. E. Edmonds, no later than 4.00 pm on November 7, 1986.
- Entries are to be signed and dated by a member of staff employed in the area of the University's official establishment submitting the entry.

Judging

The entries will be judged by three members of the Council of the University who are not members of the staff of the University. The judges' decision will be final and no correspondence will be entered into on the judge's decision.

Prizes

The area of the University's official establishment submitting the winning entry shall be presented with ergonomic products to the value of $2,500, selected by the winner, from the Sylex Spring 1986 catalogue. This prize has been donated to the University for this competition by Sylex Distributors Pty. Ltd.
Scholarships - CHINA and INDONESIA

Eight scholarships, each tenable for two academic years, are expected to be available for Australians to undertake tertiary study in China commencing in September, 1987.

Applicants for the scholarships must be Australian citizens under 35 years of age. They should be able to demonstrate a high academic or professional ability, a serious commitment to Chinese studies or a good professional reason for studying in China which would benefit Australia.

Applicants should preferably have already attained a reasonable level of proficiency in the Chinese language. However, applicants well qualified in other areas with no knowledge of the language will also be considered.

The scholarships cover tuition fees, accommodation, living allowance and contributions to medical and dental expenses.

The Australian Government will provide the airfare and a supplement to the living allowance.

A number of places will also be made available to Australian citizens wishing to fund their own studies in China.

Australian self-funded students studying in China on Australian Government recommendations generally do not have to apply to the Australian Embassy. However, they must meet travel and living expenses as well as medical and text book costs and they are responsible for their own travel and visa arrangements.

Students who have a Masters Degree or who are working towards a PhD and who are proficient in Chinese may be offered a place to undertake research in their chosen field of study.

Applications close on December 31, 1986 and application forms are available from: The Secretary, Australian-China Student Exchange, Department of Education, P.O. Box 826, WODEN, ACT. 2606. Enquiries: Nona Bennett (062) 83-7638.

The Indonesian Government is offering at least two scholarships to Australian wanting to undertake one-year, non-degree tertiary studies, commencing January 1988, in Indonesian or a regional language and literature, or Indonesian music and dance.

Applicants must be under 35 years of age, be able to speak and write in at least basic Indonesian, have completed the High School Certificate or equivalent, and have some knowledge of their proposed field of study.

The scholarships include allowances of up to about $A145 a month, but do not include travel to or from Indonesia.

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2NUR - NEW PROGRAMMES

2NUR-FM has introduced new programmes. A new breakfast show has recently begun and is aimed primarily at 25 to 50 year olds and will include popular light music and local current events with 2CH news hourly. Anchoring the programme will be New Zealand born, Grahame Wilson, a volunteer presenter at 2NUR for some years and formerly with the ABC.

Mr Anton Donker, Station Manager, stated that "traditionally we have had specialist music programmes during the breakfast slot. They have been moved elsewhere in favour of family-oriented programmes."

2NUR-FM will also be introducing new rock programmes. Most of the station's rock programmes will now come under the title Rock File or New Beat.

INAUGURAL APICS GRANTS

INVENTORY MANAGEMENT AND MANUFACTURING CONTROL SYSTEMS

Interested parties, individuals, organisations or companies, are invited to submit written applications for the inaugural APICS Research Grant of a value of up to $20,000.

The successful projects will have an emphasis on the application of inventory management and manufacturing control systems in the Australian industrial environment and be aimed at one or more of the following:

- application of modern techniques
- systems development
- education and training methods

Submissions close Friday, November 28, 1986 and applications should include details of objectives, research methods, budgeted expenditure, and time phased activities.

Awards will be announced by December 19, 1986. The research should be completed and written up by end of December, 1987. A paper is required to be presented at the APICS Monthly Meeting in Sydney on Wednesday, February 25, 1988.

This Fellowship is jointly sponsored by the NSW Chapter of the Australian Production and Inventory Control Society (APICS) and the NSW Department of Industrial Development of Decentralisation.

For further information contact:

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The scholarships include allowances of up to about $A145 a month, but do not include travel to or from Indonesia.
Dr Clive Croxton is an Associate Professor in the Faculty of Mathematics in the University and has just collated and edited a new book Fluid Interfacial Phenomena published by John Wiley and Sons Ltd. Chichester and New York, June 1986. The book has 377 pages and cost $80.

The present book represents a collection of some 16 chapters contributed to by almost 30 international leading writers in the field, each presenting various aspects of the subject.

Clive found two points of particular satisfaction. Firstly, the inclusion of substantial chapters on the experimental aspects of fluid interfacial structure and the increasing use of computer simulation and secondly, the contribution of B.V. Derjaguin of the Soviet Academy of Sciences, Moscow and one of the leading pioneers of the Physics of water interfaces.

His contribution is the most complete exposition yet available in the west, in English translation, of his research on the subject.

Clive's own research interests remain in the general area of statistical mechanics and have recently extended to the description of polymer structure liquid crystal theory and the statistical description of the protein conformation and the relation of structure to function.

The show was stolen by the actors-playing-actors: horrified by the incomprehensible script Marsilia gave them, they nevertheless flung themselves into it with often-hilarious, well-staged abandon. Michelle O'Fen and Narelle Peeney (the heroic Betty) were perfect in these scenes and Nick Rowe was outstanding in a generally very good cast.

For further information contact Dr B. Millar, SST 26 Secretariat, Department of Engineering Physics, A.N.U. GPO Box 4, Canberra 2601, Phone (062) 49-4572. Telex: AA 62615 RSPHYS


**SPORTING ROUND-UP**

**Cross Country Championships**

Newcastle University boasts a very strong contingent of distance runners. During the Second Term break five of these runners combined to secure the Mens' 1986 Australian Universities Cross Country Championship, winning both the road relay and the teams section of the Individual Cross Country race. This continues the strong showing of the University at Inter-Varsity events in the past few years.

The team competing in the Championships, hosted by Sydney University, comprised the following runners:

- **David Lightfoot** (1986 Aust. Universities Cross Country representative), who placed 3rd in the individual Cross Country title;
- **Terry Farrell** - 5th, two seconds behind David;
- **Arthur Kingsland** (1985 Individual champion) - 7th;
- **David Rundle** - 10th; and
- **Patrick Harris** - 12th.

All athletes competed strongly, although for some this is merely the build-up period for the summer track season.

The individual cross country race was won by Jamie Harrison, from the University of New South Wales on a course of 6 x 2 kms.

Teams comprise four to six runners, the first four scoring points for the team. The other two runners may displace runners from other universities. We had all five runners home before the third runner from any other team. Second placed in the Teams event were Monash, with a tie for third between the University of New England and Sydney University.

The road relay team competed over a course of 4 x 5 km held in Centennial Park. Team members were: David Lightfoot, Terry Farrell, Arthur Kingsland and Patrick Harris. This combination won by over a minute from second placed Monash.

On the same day as the road relay the Mens' 10 km road walk was conducted. Our sole representative, Arthur Kingsland, placed third in this championship. This capped off a most successful Inter-Varsity Championship for the University.

The Athletics Club wishes to encourage other runners, both beginners and those with more experience, to participate in the sport for exercise, social activities and competition. Any enquiries should be directed to Albert Nymeyer (Ext. 596) in Mathematics, or Arthur Kingsland (Ext. 621) in Architecture.

**ADVERTISEMENTS**

**Positions Vacant**

Reliable and efficient students for PAID work as projectionists and lighting operators (and other lighting work) for the Australian Society for Immunology Annual Conference to be held on Wednesday, December 3, Thursday, December 4 and Friday, December 5 in the David Maddison Building, Royal Newcastle Hospital. All interested persons are requested to telephone Professor R. Clancy at Extension 635.

One pair bucket seats, suit Suzuki Sierra - good condition. $100 or best offer. Please telephone ext. 700.

Three-way camp fridge in good condition. If you are able to assist please telephone Extension 328 or 54 4251 (evenings).

**For Sale**

1982 2.0 litre Sigma sedan (light tan metallic). This car is in excellent mechanical condition and features air-conditioning and is automatic. The car has been rust-proofed and the upholstery has been scotchguarded. Asking price: $7,500. All interested persons are requested to phone Extension 394.

Syd Hills & Son Saddle, Show and Dressage 16 1/2" mounted. This saddle is in good condition. Asking price: $325 or near offer. All interested persons are requested to telephone Gay at Extension 407.

Wanted to Buy

A clean sunny two, three or four bedroom house in the East End. If you know of any house that fits this description that will be vacant in the near future please contact us. We can be reached by phoning 23 876 almost anytime. We can supply references etc. from heaps of really nice people if you'd like us to. Thanks.

**Accommodation Wanted**

Spacious three bedroom house, New Lambton area with city view, barbeque area, nice surroundings, near Blackbutt Reserve. One bedroom available soon with another to be available for two months from December 9, '86 - February 6, '87. Person required is a quiet, responsible, mature non-smoker. $50 per week plus shared expenses and bond. Please contact Juliet: Tan 68 5357 (work) or Molinda Lloyd 52 3488 (work).

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**For Sale**

DIARY OF EVENTS

Wednesday, October 15, 1 pm
Faculty of Education seminar entitled: Is The Education Of Retarded Children Factor Fantasy. Speaker: Dr Adrian Ashman. Venue: W202 (Education Primary Classroom).

6.30 to 7 pm

7.30 pm
Capella Corelli, Baroque Chamber Music with Harpsichord in the Southern Cross Lounge. Admission: $3 (students) and $5 (guests).

8 pm

Thursday, October 16, Noon
Movie: Hopscotch in the Union Common Room. Donation: 50 cents.

1.30 pm

Friday, October 17, 11 am
Department of Economics seminar entitled: Contract Labour and Industrial Relations in New South Wales Road Transport. Guest speaker: Mr Mark Bray, University of Wollongong. Venue: S101, Social Sciences Building.

1 pm
Film Buffs Club presents the following: Burlesque on Carmen, The Gold Rush, Them That Hills in the Common Room. Admission: Free.

8 pm

Tuesday, October 21, 10.30 am
Department of Community Programmes and the Hunter Drug Advisory Service present a series of six Stress Management Workshops. Venue: Hunter Drug Advisory Centre, S6 Stewart Avenue, Hamilton. Workshops will be conducted by Norma Pepper. For further information please contact Community Programmes at Extension 600 or 522.

Wednesday, October 22, Noon

1-2 pm
Lunchtime entertainment in the Court yard featuring Death Defying Theatre (show and workshop).

1-2 pm
Faculty of Education seminar. Topic: Possible Approaches to Analysing The Quality of School Life. Speaker: Sid Brenke. Venue: W202, Education Primary Classroom.

Thursday, October 23, Noon
Movie: The Springfield Rifle in the Common Room. Donation: 50 cents.

1.30 pm
Department of Philosophy seminar to be presented by Professor Peter Gardner (Philosophy, Lund University, Sweden). Venue: A110, McMullin Building.

Thursday, October 23 to Friday, October 24, 9.30 am to 4.30 pm
Aboriginal Education Conference to be held in Lecture Theatre K202, Medical Sciences Building. Speakers include: Professor Eric Willmott, Head of the School of Education, James Cook University; Lilian Holt, Deputy Principal, Aboriginal Community College, Adelaide; Eve Paul, Director, Aboriginal Research Centre, Monash University; Errol West, Chairman, National Aboriginal Education Committee, Canberra and Bob Morgan, President, N.S.W. Aboriginal Education Consultative Group. For further information please telephone Community Programmes at Extension 600 or 522.

Friday, October 24, 11 am
1986 Newcastle Lecture in Political Economy. Guest speaker: Professor Peter Groenewegen of Sydney University will speak on In Defence of Post Keynesian Economics. Venue: 5101, Social Sciences Building.

12.45 to 3 pm
Newcastle Branch of APS in conjunction with the Department of Commar"-
P o r a m e s p r e s s N e u r o p s y c h o l o g i c a l Methods of Stroke Assessment in Lecture Theatre R02, Geography Building. Speakers: Juris Hendry and Corinne Roberts. For further information please contact Community Programmes at Extension 600 or 522.

Music Virus 1986 -CAPPELLA CORELLA-
Capella Corelli is a fine baroque ensemble, which offers rare and little heard chamber music performed in historical style on instruments as close as possible to the originals.

Wednesday, October 15, 1986 7.30 pm.
Venue: Southern Cross Lounge
Cynthia O'Brien - Baroque violin
Ruth Wilkinson - Viola da gamba
Annie Whelan - Harpsichord
$2 - Students $3 - Guests

Aboriginal Education Committee, Canberra and Bob Morgan, President, N.S.W. Aboriginal Education Consultative Group. For further information please telephone Community Programmes at Extension 600 or 522.