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UNIVERSITY OF CANTERBURY Chronicle

Photograph by Duncan Shaw-Brown, Audio-Visual Aids.

This dome, now under construction in a hangar at Wigram RNZAF base, will house the one-metre telescope being built in the Physics Department—and it is hoped it will be installed in the satellite tracking station at Mount John to be vacated by the United States Air Force.

The Vice-Chancellor (Professor A. D. Brownlie) told the last meeting of the University Council that the operation of the telescope, which will be by far the largest in New Zealand, would be a most satisfactory use for the tracking station building.

The tracking station was designed as an astronomical facility and it shared with the Mount John University Observatory the access road and water and power facilities and their maintenance. Close co-operation between the observatory and the tracking station has been essential for both operations.

Professor Brownlie said it was hoped required alterations to the tracking station could begin soon so that the telescope could be installed in late 1984. After the necessary long period of testing, the telescope could then be used for observations on Halley's comet in early 1986. Such observations would be part of an international programme of work on the comet.

Third Successive Win

The 1983 Macmillan Brown Prize for Writers has been awarded to Mr John Newton, an undergraduate student of the University. This is Mr Newton's third win. He took the prize in 1980 and 1982.

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Academic resignations received last month include those of Dr L. R. Foulds (Economics) and Dr M. B. Jones (Zoology). Mr A. Alloway, a technician in the Geology Department, has submitted his resignation as from July next year.

Writer In Residence For 1984

Margaret Mahy Appointed

The profilic, prize-winning children's writer, Margaret Mahy, of Governors Bay, has been appointed writer in residence at the University in 1984. Her acceptance, (pictured), is surely the most colourful the University has ever received.

Margaret Mahy, who studied at the University, has several projects to work on during the nine months she will spend here. She is considering a three-act play as well as a play for children and she hopes to finish a romantic fantasy intended for young adults. She also hopes to add to the life of the University in peripheral ways wherever appropriate and would be ready to talk to students interested in writing work similar to her own, or approximately so.

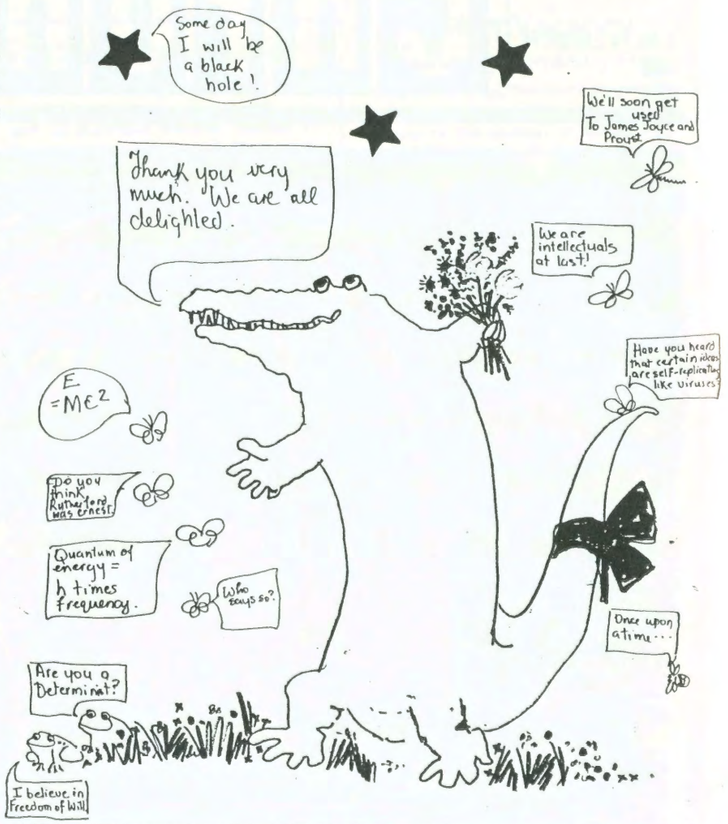
Miss Mahy has published 37 books so far in Britain and the United States and next year will have three further books, including a novel for adolescents, published. She is a qualified librarian, — she was children's librarian at the Canterbury Public Library for three years — but for the last three years has made a living as a writer, producing books, instructional readers for schools, television scripts and other work. She has found the living is sometimes thin, even though her books have been very successful.

Just how successful was brought home to New Zealanders this year when she was awarded the prestigious Carnegie Medal for 1982 for her full-length novel *The Haunting,* which won widespread critical acclaim and enthusiasm. On three occasions she has won the Esther Glenn medal, the principal New Zealand award for children's books. One of her books won an award at the Bologna Book Fair in 1976 and another award in the Netherlands in 1978.

Margaret Mahy, who is 47, has two daughters and her work over the years has echoed their interests. As they grew older her picture books, of which 23 have been published, were replaced by longer and more complex stories. For the last 15 years she has been regarded in Britain as the most original contemporary writer on the children's list.

"Margaret Mahy" says *Twentieth Century Children's Writers,* is outstanding in the richness of her ideas and in her great storytelling ability. She has a fresh and vivid imagination, which speaks directly to the imagination of the child, and an ability to use language to increase the force of her imagery to great effect."

Miss Mahy is not evangelical about writing for children, but she emphasises that it is not something detached from the rest of literature. It may have a special character, but the same rules of excellence about style, characterisation and all the other things on which critics comment must apply if it is to be successful.



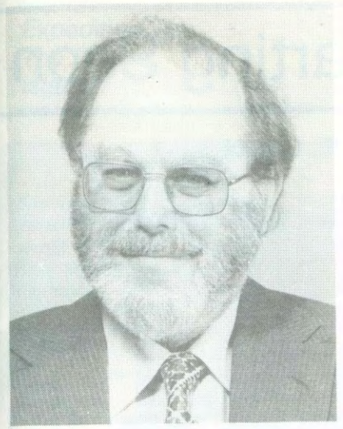
Two Specialist Books Published By Professor Arrillaga

Two specialist books have been prepared in the Department of Electrical and Electronic Engineering and published in the United Kingdom this year.

The title of the first book, published by John Wiley & Sons, is *Computer Modelling of Electrical Power Systems* and the authors are J. Arrillaga, C. P. Arnold and B. J. Harker. It is a 423-page volume recording the state of the art, which has been advanced considerably by the research of the Power System Group under the combined supervision of Professor Arrillaga and Dr Arnold over the last eight years.

The second book, *High Voltage Direct Current Transmission,* has just appeared. It has been written by Professor Arrillaga at the invitation of the Institution of Electrical Engineers of the United Kingdom. Professor Arrillaga has written more than 50 papers in England and America on the topic of HVDC, the subject of the book, and in 1975 he received the John Hopkins prize of the IEE for his work in this area.

New Zealand was one of the first countries to use HVDC transmission on a large scale with the Cook Strait interconnection in 1965. Since then the amazing developments in solid state technology have advanced the subject considerably — hence the reason for the book.



Professor A. R. Crawford (Geology) who has been awarded a D.Sc. by the University of Leeds.

Recent staff appointments include those of Mr D. K. Moores as boiler attendant in the boiler room; Miss R. J. Nicholls as assistant librarian in the Acquisitions Department of the University Library; Miss H. E. Painter as assistant technician in the Department of Chemistry; Miss B. J. Sweetapple as library assistant in the Circulation Department of the University Library; and Mrs Sybil Tye as secretary-typist (half-time) in the Department of Geology.

Colin Hales Has Left His Mark On The University

Colin Hales, who will be retiring at the end of February, probably has more experience of different aspects of the operations of the University than any staff member.

Thirty-five years ago he was appointed cashier and fees clerk in the Registry of Canterbury University College, a position preceded by nine years' service in the Post Office and a term as a radio operator in the Royal New Zealand Navy during the Second World War.

So it was not surprising when his predecessor, Phil Lummis, began to work shorter hours preparatory to retirement, that Colin Hales was transferred from his desk job to the maintenance side of the administration. Two years later when Phil Lummis, maintenance man extraordinaire, finally retired, he was appointed foreman of works.

It was an entirely different job in the mid-sixties from the sort of trouble-shooting maintenance of the spacious days of the past. Mr Lummis had prudently stored away much of the material and special fittings the old city sited buildings required and it was a relatively simple matter to replace slates on the roofs or to add new lengths of the cast iron guttering.

But changes were afoot as the student roll grew. The School of Fine Arts and the Engineering School went to Ilam and the vacated buildings on the city site had to be adapted considerably for the burgeoning Arts, Science, Commerce and Law faculties. Colin Hales had a key role in this work. The old Fine Arts School became an extension of the Library; so did part of the Engineering School. Chemistry laboratories grew from abandoned engineering laboratories and new staff offices turned the upper reaches of the old Engineering School into something of maze.

To prepare himself for this work, Mr Hales gained a drainlaying certificate, qualified as a scaffolding inspector and took a Polytechnic course on building construction which included quantity surveying and structural concrete studies. They were of considerable assistance in the preparation of estimates that had to be presented to the University Grants Committee for the large buildings required at Ilam.

The nature of the job changed a good deal when the transfer to Ilam was completed and Colin Hales and his maintenance team became engaged in some relatively large construction projects on the new site. They included filling in the ground floor of the Modern Languages building to provide accommodation for the teaching of Maori, the construction of the bank building and cafeteria under the Library and the transformation of the bank into a large public computer terminal earlier this year.

And there were field stations — Kaikoura and a substantial addition to the Cass field station, undertaken at times in decidedly chilly weather, which rather stretched the resources of the maintenance section.

Mr Hales puts the credit for his achievements on his staff. "We've always been able to get a good team in maintenance, adaptable, flexible and able to turn their hands to all aspects of building — from laying foundations to making the furniture," he says.

He looks back with a good deal of satisfaction and pleasure at his career, but confesses that he preferred life when the student roll was less than half what it is now. "Twenty years ago I knew most people and they knew me, but it's a very different ball game now," he says. "But even so, this campus grows on you as the years go by."

In retirement Colin Hales will face a golden challenge. For some years now he has spent a lot of spare time assisting in the operation of a gold claim at Stafford, near Kumara, where hundreds of picks and shovels clattered and flashed a century ago. He plans to take a closer interest in the exploitation of the claim in future. He likes the work, enjoys West Coast life and finds the bright gleam of gold gives it a special zest.

Chemists Go Down To The Sea Again

Dr Murray Munro and Dr John Blunt, both of Chemistry, who have been investigating the anti-viral qualities of certain marine invertebrates, have an unexpected opportunity next month to add to their collection.

Together with several students they will board the Oceanographic Institute's research vessel Tangaroa, for a three-day collecting cruise off Kaikoura, beginning on 1 December. The cruise was made possible by the cancellation of a Southern cruise.

Next year the two chemists plan to make a three-week cruise in the Tangaroa in the sponge-rich seas at the top of the North Island and then on to the Kermadecs.

They made a similar expedition off Kaikoura last summer and collected some 427 samples of marine sponges, bryozoans and tunicates. These were analysed here for anti-bacterial and anti-fungal components and then were sent to the United States for investigation of their anti-viral and anti-tumour qualities. These investigation indicated that New Zealand's marine fauna is an unexpectedly rich source of anti-viral and anti-tumour extracts. A $20,000 research grant has enabled a post-doctoral fellow to be employed in extracting, purifying and indentifying the agents.

Showers Off

Recreation Centre users are advised that from Monday, 12 December until it closes on Wednesday 21 December, the changing rooms, showers and toilets will not be available while repair work is carried out.

Concrete For Offshore Oil Towers

Research Starting Soon

A three-year research project which could enable concrete rather than steel to be used for New Zealand offshore gas and oil towers will begin in the Department of Civil Engineering next year.

The $42,000 programme will determine whether concrete towers, some of which are already in use in the North Sea, would withstand the severe earthquakes that might be expected off the New Zealand coast.

The work will be done by a Ph.D. student, David Whittaker, a design engineer with a firm of consulting engineers in Wellington, who completed a B.E. (civil) with first-class honours at the School of Engineering in 1980 and an M.E. with distinction in the following year. He will be supervised by the head of the department, Professor R. Park, Dr M. J. N. Priestley, a reader, and Dr A. J. Carr, a senior lecturer.

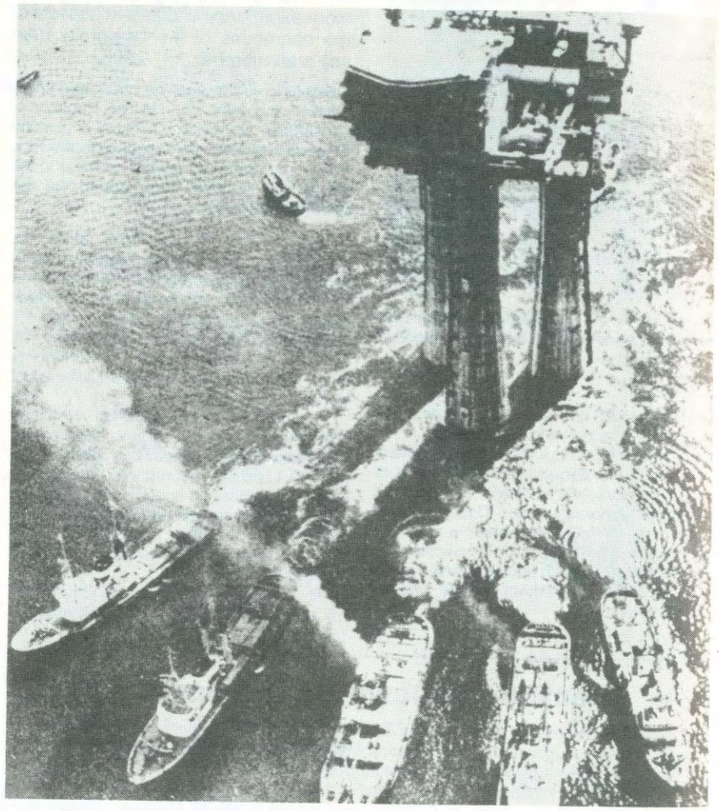
Eight New Zealand organisations interested in future developments in the petrochemical industry have contributed funds towards the cost of the research. They include the Ministry of Works and Development, the New Zealand Concrete Research Association, Pacific Steel Ltd., the New Zealand Portland Cement Association, BBR New Zealand Ltd., N. A. Wire Ltd., Worley Consultants Ltd. and W. R. Grace (N.Z.) Ltd. The New Zealand Concrete Society has strongly supported the initiation of the project.

Professor Park said that the local construction of concrete towers for use off New Zealand had many attractions. The materials — cement, aggregate and reinforcing steel — were largely produced in New Zealand and big savings in overseas funds could be achieved. The heavy sections required for a steel tower, such as Maui A, were not made in New Zealand.

Job opportunities in related industries in New Zealand would be created and the New Zealand participation would be large.

The amount of work that would need to be conducted in the open sea would be minimised — an important consideration in view of our rough offshore waters, Professor Park said. New Zealand had very favourable sheltered sites, such as the Marlborough Sounds, in which to make large concrete structures. Fiordland could be used for the deep water mating of the tower with the platform.

At least 16 offshore concrete towers are in use in the North Sea in water depths of up to 150 metres. Known as gravity structures because they sit on the sea bed under their own weight and are not pinned to it as are steel towers, they are constructed in sheltered harbours, towed into position and sunk.



A completed concrete tower being towed, floating, to its site before being sunk into position (A Condeep structure of Norway).

Professor Park said earlier tests in New Zealand revealed that a key factor in the design of a concrete tower would be to ensure ductile, or non-brittle, behaviour at the base of the main column sections in severe earthquake shaking. Current knowledge would enable solid columns to be designed for adequate strength and ductility with confidence. However, the use of tubular columns would be more economical and the testing of concrete tubular elements under seismic type loading was needed to assist in proving the acceptability of such a design.

The experimental work will involve tests on prestressed and reinforced concrete members with a hollow circular cross section of up to 900mm diameter. The cross section would model the much larger diameter tubular members typical of offshore concrete towers.

Professor Park said there was already a suitable rig in the Department of Civil Engineering for the tests. It had been used recently for testing railway bridge piers. The department's large Dartec universal testing machine would be used to apply the compressive load.

Last year, a Norwegian firm sought information from the department about the behaviour of critical regions of concrete towers in response to severe earthquakes. It was evident, Professor Park said, that little was known internationally. The information that would be obtained from the research should result in improved confidence in the siesmic design of offshore concrete towers and would help in allowing worthwhile refinements in the design.

Expedition To The Snares Islands

Research Amid Conflict

(By Peter Johns, senior lecturer in Zoology)

The small island group, the Snares, 100km south of Stewart Island stand proud in a region of very rough seas and driving winds and their overall climate is at the worst end of the south seas tradition. It is through this isolation that they have become the centre of much controversy and the mooring rights which the Lands and Survey Department has granted to several fishermen plying there for crayfish have elicited strong comment from conservationists and equally strong threats of rebuttals from the fishermen.

The conflict is based on the arguments for and against the exploitation of the sea, the rights of mariners to a safe haven, and the conservation of a unique and almost pristine terrestrial ecosystem.

It is only since 1980 that fishermen have regularly visited the islands after a season of searching, at considerable expense, for crayfish grounds. These are in deep water down to 120m, and the fishing techniques are very different and far more expensive than those used on boats based at mainland ports. The Snares fishermen also spend up to a month away from home and as the few boats are small and have crews of only two or three, this long period away obliges them to seek overnight shelter to sleep in calm conditions. One experienced crewman has already changed to day-fishing after two seasons of chronic seasickness at the Snares.

It is this overnight mooring in a very restricted (only several hundred square metres) bay which has conservationists, especially those having more extreme views, so worried. They claim that the chances of rats getting ashore from the fishing boats are high. Once the rats get to the island its ecosystem would be irretrievably modified and some endemic plant or animal species would become extinct within two or three years.

But the inference that fishing boats have rats has yet to be substantiated. These boats are the living quarters for the fishermen and in such a restricted space rats would certainly be noticed. Also tainting of crayfish would lead at least to the immediate rejection from the export market and because of that there would be no profit from this marginal fishery.

The claim that once rats were on the island there would be an immediate and irreversible change has much merit. This has already happened on a number of New Zealand offshore islands: Campbell Island, a little further south than the Snares, and Big South Cape island off Stewart Island are good examples. The extreme conservationists would even place a ban on *all* activities within a specified distance from the island (1-10km) thus equating the islands' biology to some very sensitive military installations. There is no doubt that such extreme suggestions invoke extreme comments from fishermen; comments which many people might regard as blackmail. It has even been said that incorrigible fishermen might release rats there.

But there is a third aspect; one in which the Zoology Department staff and students have been deeply involved.

The uniqueness of the Snares Island ecosystem was recognised early and the Department's first expedition there was in 1961. From 1967 to 1976 staff and students were there every summer, even for a whole year for two research associates in 1972. Over 50 research papers have been published and many others incorporate data derived from observations or specimens collected there. No further visits were made until the summer of 82-83 and clearly research must now be associated with other activities, which, in the view of some, are not compatible with it.

Finance for the '82-83 expedition was offered "out of the blue" and the programme and members were organised at very short notice. This enabled three students to be paid and they and a staff member to be supported for three months, December-February. A similar amount has been offered this year and another group will stay on the island for the summer and others will visit for shorter periods.

Research efforts on the unique animals and plants of the island can do nothing but support the comments of the conservationists, and most researchers have sympathy for their ideals. Yet these researchers are obliged to keep watch on the boats and conversely, rely upon the goodwill of the fishermen for transport of personnel and goods: a very divisive situation.

Although not enjoyable, this is certainly a great teaching situation in the politics of conservation, and is more than compensated by, if not complemented by, the enjoyment of the experience on such a unique island. No student has ever come away without an appreciation of biology greatly beyond that gained by formal study.

Research Work

The islands' unique ecosystem is based on the relationships between the endemic animals, the few plants which make up the vegetation, and the climate.

Two tree species; a shrub, two tussocks, a sedge and a fern, in varying proportions comprise the three main vegetation types: open, windswept tussock areas, closed (0.5-2m) hebe shrub and open (2-5m canopy) *Olearia-Senecio* Forest. the penguins in the colonies (111) kill vegetation through trampling and their excreta; and muttonbirds (estimates up to 6 x 10^6) burrow into the ground amongst the roots of the plants, weakening their support, and take any surface litter underground during the nesting period.

Research has concentrated primarily on individual species and much has been done on the endemic birds, especially the Snares Crested Penguin. Last year a census of the 111 colonies was carried out, which gave counts of 12,405 adults (one member of a pair is usually absent feeding) and 10,210 fledglings. Population estimates from these figures suggest 20,000 breeding pairs and 70-100,000 birds, figures which are much larger than those determined previously. These figures are corroborated by a slight increase in the numbers and size of the colonies, suggesting that the penguins are going through a "boom" period.

This coming summer, the whole census will be repeated and a more detailed map of their colonies made. The first study of chick survival within colonies will also be made. Hopefully data can be correlated with the nature of the colony site, the degree of exposure, predation by skuas, and the effects of leeches and ticks. This will be done by Peter Carey (M.Sc. thesis) and Peter Wilson (B.Sc.).

During January a re-examination of breeding patterns will be undertaken by Paul and Joy Sagar who were members of the 1976 expedition. Joy will also continue her studies on the streams and seepages of the island. In February Colin Miskelly will check on the breeding of the Snares Island Snipe, thus continuing his study of the '82-83 expedition. He will compare it with data gained from the Chatham Island Snipe during December and January.

Two B.Sc.(Hons.) projects based on work done during the '82-83 stay, have recently been presented. One, by Christine Butts, compared the biologies and development of the two wetas endemic to the island. She has confirmed and extended very recent observations on mainland species that the small burrowing wetas of New Zealand are predators living on other insects. The larger and better known wetas are mainly vegetarians.

(Continued next page)

Snares Islands Research

(From previous page)

Catherine Pettigrew, in her project, analysed the mating and nesting behaviours of Bullers Mollymawk. These aspects have hardly been touched upon even in any related species. The birds' repertoires of croaks, nodding, tailwagging etc. are arranged into complex "address and reply" sequences between mates or other individuals. The message is seemingly clear in each case.

Although there are few plants (just over 20), the vegetation and the effects of the animals on it, have received scant attention in comparison with studies on the fauna. Again, only a little botanical work can be undertaken as no botanist is available.

The party will also be involved in a more detailed study of the second largest island of the group. Little has been done there and should rats or other vermin get onto the main island via the anchorage, rock-bound Broughton Island will provide the only haven for the endemic species of the Snares group.

The party will leave for the Snares next week.

Holiday Accommodation

Careful Otago University family of four (two girls aged 10 and 12) require furnished house/flat or crib to rent for two or three weeks after Christmas in Christchurch. Dates are flexible. Would consider exchanging a house, if suitable. Please write M. Lal, Senior Lecturer in Accounting and Finance, University of Otago, Box 56 Dunedin. Telephone Dunedin 740-985 (evenings).

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The University Council has appointed Dr J. D. Bradshaw as Acting Head of the Geology Department during the absence on study leave of Dr D. W. Lewis.

Inter-University Conferences Decide On Library Co-operation

Co-operation in library purchases was proposed at two recent inter-university subject conferences held at Auckland — law and chemistry.

A report to the Vice-Chancellors Committee from the conference of law teachers said a paper by Mr Angelo (Victoria) recommending a regular and systematised exchange of information to achieve economies in all four law schools provoked a lively discussion from members of academic staff and also the law librarians present. All four schools are presently faced with the need to cut spending, and in particular to reduce expenditure on periodicals. There seemed as a result a greater inclination to give real consideration to the topic of the session than has been the case when the same matter has been discussed in more affluent times.

The session came up with a number of detailed suggestions for rationalisation. First, it agreed on a number of specific mechanisms for co-operation in the purchase of monographs falling outside absolute core material. Secondly, and more significantly, it agreed to a detailed scheme for the rationalisation of cuts in expenditure on periodicals.

This scheme involves all law schools dividing their current subscriptions into a number of priority categories, tentative designation of subscriptions for cancellation and the affording of an opportunity to other schools to have an input into the final decision. It was agreed also that such an exercise should take place in the context of a nationwide analysis of the various strengths of each law school, and that by and large each school should continue to build up its library (or not to cancel subscriptions) within the areas of its greatest strengths.

The high cost of subscribing to chemistry journals was recognised at the conference of chemistry teachers and members agreed to work with their university librarians to indicate those journals which they considered should be held in their own libraries and those journals which they considered should be held by at least one university library in New Zealand. Attention was drawn to the fact that some of the less popular but important journals were now in the category of "endangered species", so that full information about other universities' holdings and intentions should be obtained before a subscription to any journal was withdrawn.

In relation to the extremely high cost of the essential *Chemical Abstracts* an Otago member agreed to inquire into the likelihood of this information becoming available in the future in computer format from a central national or international source.

Recital Series Ends On Monday

The distinguished horn player, David Cripps, will join Carl Pini (violin), Walter Godde (cello) and Maurice Till (piano) for a special recital to conclude the 1983 recital series in the James Hay Theatre at 8.00 p.m. on Monday next, 21 November.

The programme will consist of Trio in B, Op 8 for violin, cello and piano, by Brahms, Duo for violin and cello, Op 7 by Kodaly and Trio in E flat Op 40 for violin, horn and piano, by Brahms. Staff were offered tickets at half the public price of $8.

David Cripps, who is 38, was entirely self-taught until he received his formal musical training. He was a member of the National Youth Orchestra of Britain, playing principal horn for two years, before winning a scholarship to the Royal Academy of Music. While still at the academy he was appointed principal horn with the BBC Welsh Symphony Orchestra and he subsequently played with the London Symphony Orchestra and the Philharmonia Orchestra and in 1974 he realised his ambition of becoming principal horn in the London Symphony Orchestra. Earlier this year he took up a position as principal horn in the New Zealand Symphony Orchestra.

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Miss C. E. Cliffe has been appointed temporary lecturer in Accountancy for a term of two years from January; Miss Francine Duthin has been appointed to a temporary teaching position in the Department of French from 15 February to 15 November; Mrs B. E. Hoddinott has been appointed a temporary clerk-typist in the Bursar's office, School of Engineering for a period of up to six months from 31 October and Mr E. J. Hyde has been appointed temporary library assistant in the Sciences Library from 14 November to 11 November 1984.

Not True To Type . . .

The retirement of Fred Downing as glassblower in the Chemistry Department has reminded a member of the staff of a notable occasion, probably in 1951, when the scheduled speaker at a meeting of the student Scientific Society had to cancel his appearance and a demonstration of glassblowing by Mr Downing was substituted at the last moment.

During the demonstration, Mr Downing had to extinguish and relight his burner several times and it occurred to one of the officials of the society, Ron Walton, that it would be easier if he had a bunsen burner going. So Mr Walton who later won considerable renown interpreting science on television, slipped behind the lecture bench in the old Chemistry lecture room where the demonstration was being held and as inconspicuously as possible busied himself finding a bunsen, joining it to the tap and then lighting it in the approved manner by striking a match and then turning on the tap.

As he did so, a jet of water shot up and hit the match amidships, extinguishing it and rather diverting attention from the glassblower. But the performance did earn a generous round of applause from the audience.

Notices

Energy Research Committee Calls For Innovative Proposals

The New Zealand Energy Research and Development Committee has requested proposals from time to time from a wide range of organisations and as a result has successfully built up its programme. The last major call, for instance, resulted in more than 70 ideas being sent in and about 10 of those have since been developed into research contracts.

The committee is now making a general request for ideas or proposals which, if successfully developed, could lead to significant changes to processes or activities. The proposals should relate to energy intensive processes or activities so that any changes would result in significant improvements in their thermodynamic efficiency and/or substitution to indigenous energy resources. Consideration should be given also to improved competitiveness, prospects for new industrial development, and exports. Examples of such recent improvements include:

hull defouling and propeller repitching of fishing vessels leading to reduction of diesel fuel use of up to 30%;

feasibility of transport of milk by pipe; successful implementation should bring about savings of transport fuel and substitution by electricity;

infra-red drying units for the paper industry resulting in significant energy savings and smaller machine size;

study of use of coal as a feedstock for car bon anodes used in aluminium smelting; successful implementation would result in reduced import of petroleum coke;

use of electronic variable speed drives for process equipment (e.g. pumps) resulting in significant electricity savings.

It may be that the energy saving aspects of the idea are fairly obvious, but research is required in some other area in order to ensure that the idea works as a system e.g. hygiene aspects of milk transport by pipe needs research.

The committee will welcome submissions in any form. A note or letter is quite acceptable. However, ideas should be sufficiently developed to indicate that a worthwhile outcome could be achieved. Similarly ideas could be developed as proposals using normal committee proposal format. Ideas are welcome either from people or organisations who have no intention of doing research, or from potential research contractors. The committee particularly welcomes suggestions from groups which have a commercial interest in the successful outcome of research on the idea.

Submissions should be addressed to N.Z.E.R.D.C., University of Auckland, Private Bag, Auckland 1.

Lunchtime Get-Together For Departmental Secretaries

WEDNESDAY
23 NOVEMBER 1 PM
UPSTAIRS COMMON ROOM
STUDENT UNION

Bring your own lunch and talk with each other. This is an invitation to all departmental secretarial and clerical staff, just to talk and generally make contact.

Lecturer or Assistant In Marketing

Lincoln College invites applications for the position of assistant lecturer/lecturer in marketing for a fixed term of one year. Preference will be given to applicants with higher degrees in marketing and commerce. Applications from people with practical experience in the agri-business sector will be welcomed. While it would normally be expected to make a full-time appointment for a year, applications would be considered from those preferring a part-time position.

The commencing salary will be according to qualifications and experience. Current salary scales for academic staff are: assistant lecturer, $16,123-$18,732; lecturer, $21,660-$25,684.

Inquiries may be made to Dr A.T.G. McArthur, Acting Head of the Department of Agricultural Economics & Marketing. Conditions of appointment are available from the Registrar, Lincoln College, with whom applications close on 9 December.

Staff Vacancies

Technician (Glassblowing)

Applications are invited for the above position in the Department of Chemistry. The successful applicant will be required to assist with the construction and repair of both standard and specialised laboratory apparatus.

The salary for Technician Grade I is on a scale from $11,351 to $14,537 per annum; commencing salary according to qualifications and experience.

The appointment will commence on 1 February 1984. Applications close on 25 November 1983.

Conditions of Appointment may be obtained from the Registrar.

Senior Technician

(Electrical & Electronic Engineering)

Applications are invited from suitably qualified graduates for the position of Senior Technician in the Department of Electrical and Electronic Engineering.

The successful applicant will work under the general supervision of the Computer Laboratory Manager and in association with the Senior Technical Officer. Responsibilities will include the day-to-day operation of the Department's VAX 11/750 computer, advice to senior students and staff using the computer in their research, and participation in further development of the computing facility.

Candidates should be familiar with operating systems and have a working knowledge of FORTRAN and PASCAL programming languages. Familiarity with VAX/VMS and computer hardware would be an advantage. The salary for Technician Grade II is on a scale from $14,992 to $17,063 per annum; commencing salary according to qualifications and experience.

Applications close on 28 November. Conditions of appointment may be obtained from the Registrar.

For Sale

Good quality items including Frigidaire Fridge/Freezer $250, Sanyo AM/FM Radio Casette Player $100, Shacklock Conray Heater $65, Double Bed and Colonial Headboard (mattress is one recommended for back sufferers!) $300, BMX bike $180, Healing 16" bike $70, Raleigh 26" Gent's bike $100, and various kitchen utensils, toys, books and games. Phone Mal Jones, Ext. 638 or 599-503 (Home).