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Chronicle

Student Roll Expected to Be Over 7700

Enrolments this year seem certain to set another record in spite of restrictions on several courses.

At the end of Enrolment week last Friday, 7449 students had enrolled compared with 7186 at the same time last year. If past patterns of late enrolment are followed, the total number of students is expected to be 7700 compared with last year's total of 7561.

A significant change this year was that the enrolment of first year students increased after declining in the last few years. At the end of Enrolment week the number of first-year students was 1914 compared with 1737 at the same time last year. The figure was greater than any year since the mid-seventies. First-year enrolments in 1979 were 1821 and in subsequent years first-year enrolments have been; 1909, 1880, 1880, 1776 and, to date this year, 1914.

The proportion of full-time students has risen marginally from 71.5% last year to 71.7% and there has also been a slight increase in the proportion of women enrolled—from 44% to 44.3%.

Faculty figures at the end of Enrolment week were:

	1984	(1983)
Faculty of Arts	2491	2497
Faculty of Science	1813	1763
Faculty of Law	563	549
Faculty of Commerce	1161	1086
School of Music	80	85
School of Engineering	790	782
School of Fine Arts	142	150
Faculty of Forestry	103	62
Bachelor of Education	306	212



Professor L. A. Erasmus (Mechanical Engineering) who was awarded the Fulton-Downer Gold Medal for the best technical paper presented at the annual conference of the Institution of Professional Engineers New Zealand last month.

Seminar On Teaching Deaf Students Attracts Interest Off Campus Too

For deaf students, sounds are not just softer; they are missing — and amplification cannot replace them. For participants at the recent seminar on deaf students, a realisation of the poor quality of aural information received by the hearing-impaired, and demonstrations of the crippling consequences of this, dramatically focussed attention on the importance of the visual adjuncts to speech.

The programme "Teaching Deaf Students - Helping Them Use Their Eyes" ranged extensively over the many practical matters that should be considered by lecturers with deaf students in their classes, and as a result a listing of hints and suggestions will shortly be available from the E.R.A.U.

Unexpected support for the organisers came with a letter received following reports of the seminar in the Press. The E.R.A.U. thanks Mrs A.M. Coates for her warm good wishes and is very pleased to be able to

share her pertinent observations with readers of the *Chronicle*. She writes:

"Congratulations on planning the seminar to show lecturers how to cope with deaf and partially deaf students. This fills an urgent need in a community of slovenly speakers, so there is no better place to start than in our halls of learning at all grades.

"You are setting out to do something I have waged a one-woman campaign for in 15 frustrating years. Now 89, I know something about the problem first hand. I was suddenly deafened, told no hearing aid was available for my kind of deafness (nor likely to be), no escape was possible from total deafness eventually and lip reading was needed urgently.

"This dire prediction has not yet occurred, but I do have an experimental aid. More important I find with health improvement, I can hear most voices if people open their mouths. Shouting causes pain and is quite unnecessary.

"Here are hindrances: hand over mouth, steeping the hands, restless or

droopy heads, addressing the fly on the ceiling, heavy beards and moustaches blanketing the sound, turning the back away from the hearers, standing at the back or side of the room.

"With about 50% hearing loss, I can hear every word from people whose first language is not English. This surely points out a serious gap in our education system. We had fewer poor speakers when pupils had to read aloud and recite poetry. If these methods are outdated, surely pupils can be taught how to speak and listen.

"Most of our problems, public and private, are the result of poor communication. It follows that the quickest way to improve our society is to improve speech and listening, by educating the lecturers and teachers. As a keen W.E.A. member, I know most of them need it. So do the participation listeners in their seats.

"The deaf can do their share by trying to improve health and outlook on life, weeding out defeatist attitudes. If they cannot hear, politely request the speaker to please open

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Three New Lecturers

Dr Krzysztof Pawlikowski, aged 37, who is at present in Frankfurt on an Alexander von Humboldt fellowship, has been appointed a lecturer in computer science for a two-year term starting in May.

Dr Pawlikowski gained an M.S. in electrical engineering from the Gdansk Technical University in 1969, his thesis being on the control optimisation of large dynamic systems. He gained his Ph.D. in 1975 with an analysis of data multiplexing techniques in loop computer communication systems. He was then appointed an assistant professor in the Institute of Communication Systems at his old university, lecturing on modelling analysis and design of computer communication networks, performance evaluation of computer systems and networks, information theory and redundant codes.

His research interests include performance evaluation and computer communication networks and he has given papers on these topics at a number of national and international conferences. He is co-author of a book (in Polish) *Introduction to Computer Communication*. In 1975 he was honoured by the Polish Academy of Sciences for the best papers of the year in computer science. He is a member of the Polish Society of Cybernetics, the German Society of Computer Science and the independent trade union, Solidarity.

Dr Pawlikowski is married with two sons.



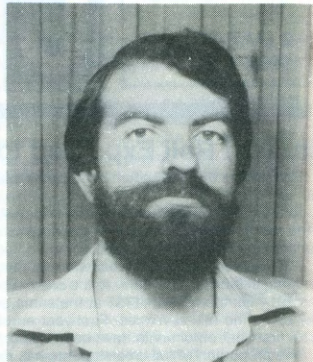
Elaine Dobson a lecturer in composition and writing techniques at the Queensland Conservatorium of Music has been appointed a lecturer in the School of Music and is expected to arrive at the beginning of the second term.

She is a part-time Ph.D. student at the University of Queensland, the topic for her thesis being foundations for design in new music composition.

Mrs Dobson, who has a Queensland masters degree in music (composition) is a prolific composer and much of her work has been performed. It has brought her numerous scholarships and prizes, including the inaugural Australian Young Composers' Fellowship in 1970, the composer's prize at the 1972 Banbury Arts Festival and the Percy Brier memorial prize for composition at the University of Queensland in 1973 and 1975.

She gained her A.Mus.A. in piano performance in 1965, but her work covers a wide range—choral, song cycles, works for clarinet and flute, an operetta for children, theatre music and experimental electronic music. She has a close interest in the instrumental folk and art music of Tibet with particular emphasis on music for the drum, lyre, or lute. Indeed she chose this topic for her Ph.D. research originally, but discovered insurmountable difficulties in undertaking the field work.

Mrs Dobson, who is 38, has wide teaching experience and has undertaken considerable committee work. Her strongest commitment is to the composition of contemporary music and its relation to the visual arts. She has worked closely with her husband, Terence Dobson, a lecturer in art, in this area.



A specialist in industrial sociology, Dr Craig R. Littler, a research officer in the Department of Social and Economic Studies, Imperial College, London, has been appointed a lecturer in sociology.

A graduate of the London School of Economics (Ph.D. 1979), Dr Littler has been a research assistant for the Office of Manpower Economics in Britain and a research fellow at the City University before going to Imperial College two years ago. He has also been a part-time lecturer at Cambridge and worked as a consultant for several years for various Open University courses.

Dr Littler has published a book dealing with the transformation of work organisation in Britain, Japan and the United States and is co-author of *Work and Society* (1983) and *Management and Industry in China* (1984) as well as co-editor of *Managerial Strategies and Industrial Relations* (1983). Four other books are in preparation.

He is a member of the British Universities Industrial Relations Association, the British Sociological Association, the Society for the study of Labour History and the Society for Anglo-Chinese Understanding.

His special areas of interest are the sociology of work and technology, industrial relations, organisational behaviour, economic and labour history, Japanese and Chinese management and industry and labour economics.

Dr Littler, who is 35, is married with one child.

The Standing Committee on Library Resources, under the chairmanship of Mr P. Durey (Auckland), has prepared a paper on the problems facing New Zealand University Libraries in the quinquennium 1985-89.

Professor G. A. Knox Retiring

George Knox has been such an industrious teacher, researcher and administrator on the University, national and international scientific scenes that it is difficult to envisage him in retirement.

In fact there will be precious little retirement as he formally quits the University, where he has taught for 35 years, nearly 20 of them as head of the Zoology Department. All he will be doing is giving up teaching; he has at least three books to complete and 14 papers under preparation to add to the 105 he has already published; and he retains some of the positions on international scientific organisations which gave him and the University a considerable reputation in many parts of the world.

But he says that what he has been able to accomplish has been made possible by the support and co-operation of many people—"the staff, both academic and non-academic, of the Department, the students, colleagues in many parts and above all else my family, especially my wife."

His interests have led him to the world's most inhospitable continent, to remote fog-shrouded islands, rocky shores, less than salubrious estuaries and to just about every country in the world. He must be the most travelled member of a peripatetic staff—he has had tickets to such faraway places as Varna, Mendosa, Montreux, Koror, Bellagio, Woods Hole, Noumea, Warsaw, Beijing, Leningrad and Jerusalem as well as more familiar cities.

Within New Zealand Professor Knox has been a leading figure in environmental conservation. But his national and international reputation has not been at the expense of teaching and research within the University. He is one of the few members of the academic staff to have taught at every level of the education system, having once been responsible for the lower half of a two-teacher primary school somewhere in the wilds of North Canterbury and then teaching at secondary level.

The experience gave him a strong interest in teaching and developments in teaching and among the outcome has been the establishment of first-year biology courses, a new course in population biology, changes in honours teaching and a course in applied ecology.

Establishment of the Joint Centre for Environmental Sciences, now the Centre for Resource Management, was one of his major university contributions. "I had been thinking of something along those lines and I knew Lincoln had similar ideas," Professor Knox said. "A quinquennial submission was due and the then Vice-Chancellor, Professor Phillips, wanted to include the proposal in it. It would have been silly for both

An Industrious Career



institutions to go their own ways so I talked them round at Lincoln and sold the idea to the faculties here. Part of the proposal was for a masters course in resource management and I ran the course for the first year until Professor Philip Corbet arrived and I was chairman of the Joint Board of Studies which managed the centre. I think it is one of the most successful ventures the University has undertaken. It has certainly produced people who have been in great demand throughout New Zealand and I feel I have been very fortunate to have taken part in its work."

He was delighted with the way the Zoology Department developed soon after he became its head. The University was expanding, staff numbers rose and there was the promise of laboratory and office space at Ilam after the cramped and inadequate conditions on the city site. In the sixties the number of staff rose remarkably as the student roll increased. It was possible to recruit the staff he wanted and to direct developments along lines that were needed. In fact there were more advanced students in the department than in any similar department in Australasia. At one stage there were more than 30 Ph.D. students. Many were from overseas, and this was an excellent development. "It is a real pity to see a decline in the numbers of overseas students undertaking doctoral research because of the Government policy of raising fees for overseas students," he said. "One of the problems at postgraduate level has been the insularity of New Zealand institutions. Movement is very good for postgraduate schools."

Professor Knox was also involved, at the other end of the teaching scale, with secondary school biology. He took part in a considerable amount of curriculum revision and was in charge of the Education Department's senior biology revision pro-

ject which resulted in the publication of the first New Zealand biology textbook *Biological Science*. The revision played a large part in the upgrading of biology in the schools and led to a distinct improvement in the academic calibre of students coming into University biology courses.

Professor Knox had been Head of Department for only a year when he became Dean of Science and was landed with a term of intense activity. First he had to steer the new B.Sc. Hons. degree through its various hoops and second he had to face the daunting prospect of overseeing the planning of the new Science buildings at Ilam. The faculty had a lot of influence on the way they finally appeared. In addition, Professor Knox had to help plan the Zoology building.

"I think the result was very pleasing despite the work," Professor Knox said. "The Zoology building has been very satisfactory—I think it is one of the most successful zoology buildings in any part of the world."

Another project of which he has cause to feel pride is the Edward Percival field station at Kaikoura. His predecessor, Edward Percival, had begun field work for students at Menzies Bay, but soon the classes became too large and an alternative site was sought. The department used the Kaikoura High School one vacation and Professor Knox thought Kaikoura was an ideal place for a field station.

"So I looked about for a site for a station and happened to see the site of an old magazine, which was very rough and hilly but which I thought had possibilities. It was Crown land and was ceded to the University. We got a grant from the U.G.C. to build the station, but it wasn't enough so we just built a shell—the building had no ceiling initially—and added to it later. It has been a very successful development—I think it's the best site anywhere in the world for a marine laboratory."

He was chairman of the Professorial Board's Audio-Visual Aids Committee for 10 years, but admits it was not a very profitable period. The climate was not right at that stage and he points rather wryly to the development that took place in audio-visual aids after his resignation from the chairmanship. He was also a member of the Lincoln College Professorial Board.

"But there came a point in my career when I had to make something of a choice between my involvement in international scientific activities and being a University administrator," he said. "I felt my major contribution was in the field of international science—and that choice certainly helped to make Canterbury well-known internationally."

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Wide Spread of Research

George Knox was basically a field ecologist and the enormous spread of his research was based on field work. But it all came about almost by chance. He was born and grew up in Pleasant Point and there was not much emphasis on science at school. While training as a primary school teacher in Christchurch he began an arts degree and was part way through it when he went off to the Middle East with the 2nd New Zealand Expeditionary Force. On his return he was able to complete his degree full time and he enjoyed the life. Then instead of undertaking an M.A. in history, as he had planned, he switched to science and began biology under Professor Percival. After completing a B.Sc. he taught at Christ's College while working towards an M.Sc.

In 1949 George Knox was appointed an assistant lecturer in what was still Canterbury University College. He became a lecturer in 1952, a senior lecturer in 1958 and professor and Head of the Zoology Department in 1959. He retired as head in 1978 after steering the department through its most exciting period of growth and development for just on 20 years.

His research began with work on rocky shores for his M.Sc. and he became interested in patterns of distribution. This led on to biogeography and an interest in how these patterns arose historically. To pursue this interest he began to investigate New Zealand and Southern Ocean marine organisms. An offshoot was an interest in the classification and taxonomy of marine polychaete fauna, an important group of worms in marine benthic ecology, about which very little was known.

As the staff of the Zoology Department began to expand he was able to recruit Dr Bernard Stonehouse, who had worked with the British Antarctic Survey, and Dr Stonehouse it was who made the first University visit to the Antarctic in the 1959-60 summer.

The outcome was the establishment of the University of Canterbury Antarctic Research Unit which, more or less has worked continuously in Antarctica ever since. When Dr Stonehouse left, Professor Knox took over the direction of the unit. The initial research had been on seals and bird life, but he developed a programme of marine fauna studies in the early seventies which he carried on until the 1981-82 season, investigating the dynamics of the ecosystem beneath the sea and shelf ice, inshore marine benthic ecology and general marine conservation. He has been on 10 field expeditions to the Antarctic and has led six of them.

The Antarctic unit, says Professor Knox, has been most successful. It generated considerable research activity with very

good publications resulting from it and won an international reputation. It was pleasing that a group of biologists led by Dr Peter Harper (Extension Studies) would continue Antarctic research, especially in view of the close association between Christchurch and Antarctic exploration and research. His departure will, however, leave a large gap in the field of Antarctic marine research, as it will in general Zoology Department activities.

The Antarctic research certainly projected Professor Knox to international scientific attention. In 1969 he was appointed to the international Scientific Committee for Antarctic Research (S.C.A.R.) as a representative of the International Union of Biological Sciences. He subsequently became the New Zealand national delegate to S.C.A.R., was secretary from 1974 to 1978 and president for the next four years. He is now serving a four-year term as past president.

In addition to S.C.A.R. he has been a member of S.C.O.R., an international Scientific Committee on Oceanic Research. Between them S.C.A.R. and S.C.O.R. also established a specialist group on the living resources of the Southern Ocean and Professor Knox has been a member of that group since 1973.

At one meeting of the International Union of Biological Sciences in 1965 it was proposed to establish an international association of ecologists. Professor Knox was elected to the governing body of the newly-established International Association for Ecology in 1965 and he was secretary-general for six years until 1978, president for the next four years and editor of the *INTECOL Bulletin* for eight years.

He was also the New Zealand delegate at two general assemblies of the International Union of Biological Sciences and two general assemblies of the International Council of Scientific Unions.

Another major research interest has been estuaries and it resulted in the Avon-Heathcote Estuary becoming probably the best-known estuary in the world. The work began in the fifties when the Christchurch Drainage Board began asking questions about the ecology of the estuary. It asked the department specifically to investigate algae growth and to evaluate the potential impact of a proposed barrier arm across the entrance near Shag Rock for flood control. Subsequently an Estuarine Research Unit was established in the department to undertake basic research on the way estuarine ecosystems function, carry out applied studies for numerous authorities, provide advice on estuarine and coastal management problems, accumulate data and formulate models with the idea of developing ways of predicting natural change and the

effects of pollutants and other man-made changes.

In addition to intensive studies of the Avon-Heathcote Estuary—a comprehensive 358-page report was published in 1973—the unit produced some 28 reports on specific environmental problems affecting estuaries in all parts of the country—from Waitemata in the north to Invercargill.

George Knox's first real experience as a field ecologist was in the Chatham Islands expedition he proposed and led in 1954. It was the first integrated oceanographic expedition in New Zealand and carried out the first investigations of waters deeper than 100 fathoms since the Challenger expedition of 1885. It turned up an amazing amount of material, he said.

It also stimulated his interest. What completely captured it was nearly eight months as marine biologist and deputy leader of a five-man Royal Society expedition to southern Chile on the occasion of the Darwin centennial in 1958-59. It was, he says, a highlight of his career and it set the direction of his research work.

One of the results was an interest in sub-Antarctic ecology and this in turn led to the establishment of a tiny University station on the remote Snares Islands in 1964 and two further expeditions there as well as three expeditions to Stewart Island and others to the Auckland Islands and Campbell Island. The Snares research is continuing.

It is scarcely surprising that all this should result in a strong interest in conservation. At local level Professor Knox has been director of the Environmental Defence Society and chairman of the Christchurch branch, and co-founder of the Canterbury Environment Centre, the first in New Zealand. He was chairman of the 1979 Environmental Conference, the largest of its kind ever held here.

He was also a member of the National Research Advisory Council's working parties on oceanography, limnology, fisheries, wildlife research and ecology as well as a member of the Council's Environment and Energy Committee. He was chairman of the New Zealand committee for the International Biological Programme and a member of the New Zealand committee for Unesco's Man and the Biosphere programme.

But it is his work in Antarctic conservation that has won him special attention. As chairman of S.C.A.R.'s Working Group on Biology he was involved in drafting proposals for inclusion in the Antarctic Treaty for a convention on sealing and the designation of specially protected areas and sites of special scientific interest. He was involved in the 10-year Biomass Programme, aimed at gaining an under-

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Need Seen For Some Tinkering

All that's required to improve the assessment of students in the University is some tinkering with the system. That seemed to be the theme that emerged from this year's staff seminar on assessment, which was, in a sense, the first shot in a year-long survey of assessment precipitated by a Professorial Board resolution last year.

And Kevin Meates, former All Black, businessman and a student under the old and the new academic regimes (B.Sc. 1952, LL.B. 1982), affirmed from a consumer viewpoint, that the University was doing very well—close to optimum. The system, he said, required only a bit of tinkering with each faculty allocating the hours of work required for each course.

But this general conclusion, if that is the correct assessment, was not reached without a good deal of discussion and debate at the seminar, organised by the Educational Research and Advisory Unit before enrolment week; and it was reinforced by the reaction of students who participated. Few believed the quality of student extra-mural life had faded, as those a generation removed from it seemed to think. What was clear though was concern at the effect of in-term assessment on the quality of education.

Professor Knox's Research

standing of the structure and dynamic functioning of the Antarctic marine ecosystem, as well as taking part in talks on the environmental implications of mineral exploitation in Antarctica. It was not surprising that he should be awarded the New Zealand Antarctic Society's Conservation trophy in 1980.

Professor Knox was elected to fellowship of the Royal Society of New Zealand in 1963 and won its Hutton Medal in 1979. He is a member of the British and American Ecological Societies, the International Association for Ecology, the Fauna Preservation Society and the Australian Marine Sciences Society as well as serving as an officer of the New Zealand Ecological Society, Marine Sciences Society, Limnological Society and the Association of Scientists.

Other service includes membership of the National Committee for Oceanography, the Freshwater Fisheries Advisory Council, Marine Fisheries Research Advisory Committee, the Ross Dependency Research Committee, the Canterbury Museum Trust Board, the National Commission for Unesco and the National Committee for the International Hydrological Programme.

Then there have been con-

Assessing Assessment

Professor David McIntyre, (History), who precipitated the whole thing last year by giving notice to the Professorial Board of a motion calling for the abolition of in-term assessment as at present practised from 1985, remarked that it could be said that Wellington won the battle of Waterloo, but Napoleon won on the year's work. And he marshalled arguments as skillfully as Wellington his armies to demonstrate the need for a review. Incidentally, the Professorial Board amended Professor McIntyre's motion by calling for a review of assessment this year.

Why should assessment be revised? Professor McIntyre said the long-term reason was current unease about continuous assessment, largely because it mixed teaching tools with assessment tools. A short-term reason was that there seemed to be a decline in tutorial attendances because assessment took so much of student time; and a picture was emerging of students doing assignments only for marks. He sensed, he said, a stultifying effect on student life outside lecture room and laboratory—were we producing boring swots? It seemed the system catered best for those at the bottom—the Napoleons.

Canterbury was involved in a half-finished revolution to get rid of examinations, Professor McIntyre said. The lottery

element and worry about final examinations had to some extent been removed, but the University now had both systems. The worst feature was the capriciousness of in-term assessment. There were unco-ordinated rules in and between departments and these had stultifying effects on serious study.

What could be done? Should tutorials be abandoned to give students more time to read and think? Should more weight be given to final examinations? Could the amount of assessment be rationed? And did we know anyway what students needs were? One thing he was sure of, said Professor McIntyre: he would not like to be a student today. There seemed to be a lack of joy in University study today.

Steven Ferguson, student president in 1982, said the Students' Association accepted the need for some form of assessment and the need to encourage learning, but emphasised that assessment must be reliable. Any change would require considerable co-operation between staff and students.

There must be continuing debate about assessment, but in any reform students would want to be assured that four points were covered: that the form of assessment for the course was valid, that the workload was fair and reasonable, that there would be interaction to motivate students and that there would be an equitable system of review.

Mr Meates, in posing the question of who pays the piper, said students today worked very much harder than they did when he took his first degree. The assessment method used in the Law Faculty today was, he thought, quite perfect in that it fitted graduates very well for the law profession, for the way a successful lawyer would operate. In the business world people were being assessed day by day. Some people would object and say that the University was not job-oriented and should be concerned with cultural enrichment, but it existed to teach people how to assess things. It was also getting students ready to be assessed outside so it should assess them.

The fourth speaker, Professor Warwick Elley (Education), said no subject in the University had so much debate lavished on it as internal assessment. There had been a steady increase in the weighting given to in-term assessment and across the University it now accounted for 53% of the final mark, with varying percentages for different faculties. That percentage was reached by means of tests (17%), essays (20%), assignments (10%), practical work (5%) and others (1%). The final examination made up the other 47%.

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Assessing Assessment

In-term assessment, he said, increased the student workload. They worked harder and longer and one would expect them to learn more and to learn better. A major student complaint was the bunching of assignments at the end of each term. More should therefore be done to spread the load.

Were results any different if one used only a final examination or combined the exam and in-term assessment? Yes, said Professor Elley, the more assessment information you could get, the better it was for students. Indeed the case for multiple assessments hinged on its better reliability and greater validity.

Some qualities, like weight, height or blood pressure, could be easily measured at one sitting and would not much vary. But in assessing a student's understanding one found variations. So two formal assessments of that understanding were better than one and three were better than two. In English and similar subjects in particular, a one-shot examination was unlikely to be reliable. Three or four assessments were much more reliable than just one.

In-term assessment had other positive benefits. It provided useful feedback for both staff and students, it helped those students who tended to go to pieces in an examination and it provided regular motivation.

A good assessment system should be reliable and valid, Professor Elley said. None would be perfect, but most problems could be overcome with a little dedication and ingenuity.

Professor Derek Davy (English) who chaired a panel discussion on the four speakers' views, asked whether students felt assessment gets in the way of learning.

Yes, said Rodney Hide, (a master's student) they have to be kept separate. And no, said Fenn Gordon (also a student), assessment can be a big help in pointing out where a student's faults lie.

Rosemary Novitz (Sociology) said it was grading that got in the way. Students really needed feedback from assignments, but because of assessment they wanted grades.

But, someone asked, did students read the comments written about an essay anyway?

John George (Operations Research) recalled that some years ago he invited a class of 30 students to solve some problems voluntarily to help with their course. Only three did so—and they were the best students—so he was forced, by paternalism, to give marks.

Rodney Hide said assignments had to be compulsory or they would not be done because of the pressure of assignments in other courses; and Fenn Gordon remarked that only a few good students would do assignments if they were not graded.

Jim Wilson asked why the whole question could not be left to students. They could choose whether to be assessed on work during the year or on a final examination, or to have grades on assignments or useful comments.

But Dr George said that while this approach worked for upper-level students, there was not sufficient staff at lower levels.

Did students think in-term assessment had ruined University life? asked Colin Brown (Philosophy and Religious Studies). How would she know?, Fenn Gordon replied. Life was different today and she could not experience it now the way it used to be. And, asked Steven Ferguson, just how enriching was that experience? Anyway, was in-term assessment to blame? There were many other pressures on students today—like job pressure.

How would students like to try a year without in-term assessment as an experiment? asked Frank Tay (Economics)—but no one seemed willing to commit themselves to a definite answer even though the chairman remarked that here was the first concrete proposal that had come up. It would enable students to discover whether assessment was good or bad.

Dr George reminded speakers that years ago there was a thing called "terms". One had to attend 80% of tutorials and do 80% of assignments to get terms and without terms one could not sit the final exam. That was much worse than at present.

Among other points made were that the Canterbury system was about as good as it could be, though it could be improved by tinkering; no faculty could work in isolation from others; the so-called lack of joy in student life could be caused by the workload and not by assessment—six-point subjects had sometimes grown to be worth nine or even 12 points so some students faced a lot more work to get the same amount of points.

Summing up, the chairman of the seminar, Professor John Ritchie (Music) said it seemed the Arts Faculty had the biggest problems—it sounded as if a feasibility study by Operations Research was required.

He said he hoped the seminar had been valuable in that it had raised questions for the 1984 review of assessment. A good deal had been learned from the students. He reminded participants of Pirsig's claim in *Zen and the Art of Motorcycle Maintenance* that "the idea that a majority of students attend a university for an education independent of the degree and grades is a little hypocrisy everyone is happier not to expose."

Seminar participants were asked to nominate important issues and concerns about in-term assessment. A short compilation of these points has been prepared, and is available on request from E.R.A.U.

University Radio Programme To Begin This Month

The monthly University radio programme on Station 3YA will continue this year and staff are invited to submit suggestions for contributions to it. Suggestions for inclusion in the 20-minute programme should be made to Eric Beardsley (Information Officer) or Bernard Smyth (Extension Studies).

It will be necessary for most interviews to be recorded in the studio at Radio New Zealand. This is usually done on the morning of the third Thursday of each month. The programme is broadcast at 6.40 p.m. that evening.

A range of topics is normally covered in each programme, with interviews rarely lasting more than five minutes. University activities, unusual or interesting research, new publications, music, interviews with visitors and news items of wide public interest are included. The best items are also played on subsequent National programmes.

The programme is introduced by *Carmen Cantuariensium Academicum*, familiar to those who regularly attend graduation ceremonies. It was composed by Dr J. C. Bradshaw, Canterbury's first professor of music, and is played by a string quartet from the School of Music.

Chilton Scholarship

Applications are invited for the Charles and Elizabeth Chilton Memorial Scholarship from full-time undergraduate students enrolled in one or more of BIOL 101, 102, 103 or 104 and intending to major in some field of Botany or Zoology. The scholarship is tenable for three years and is of an annual value of \$750. Full regulations are in the 1981 *Awards Handbook* on pages 29 and 30.

Application forms are available from the Scholarships section of the Registry, with which applications close on 31 March.

H. Macmillan Brown Bursary

Applications are invited for the 1984 award of the Helen Macmillan Brown Bursaries from first-year women students resident in University Hall. Candidates must have sat the Entrance Scholarship Examination in 1983 and reached at least "A" bursary standard. Applications close on 31 March with the Registrar. Application forms are available from the Registrar or the Principal of University Hall.

The bursary is \$650 a year and is normally for three years.

D.Sc. Degree For Botanist

Pioneering work with a scanning electron microscope into the structure of wood over the last 14 years has resulted in the award of a D.Sc. for Dr Brian Butterfield, a reader in botany. His collaboration with Dr Brian Meylan, of the Physics and Engineering Laboratory, Department of Scientific and Industrial Research, led to the publication of three books which won considerable international attention from botanists, wood scientists and foresters.

Dr Butterfield's D.Sc. submission consisted of a large collection of published papers and the three books, *Three-Dimensional Structure of Wood—A Scanning Electron Microscope Study* (Chapman and Hall, London 1973); *Three-Dimensional Structure of Wood—An Ultra-Structural Approach* (Chapman and Hall, 1980); and *The Structure of New Zealand Woods* (D.S.I.R. 1978).

When the first scanning electron microscope in New Zealand was installed at P.E.L. in 1969, Brian Meylan was among the first to use it and in 1970 he produced some micrographs of cut wood surfaces. The response to them was disappointing.

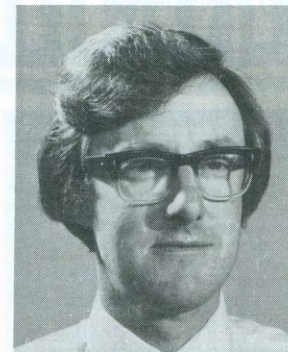
But Dr Butterfield, who had just completed a book with Professor W. R. Philipson and Josephine Ward called *The Vascular Cambium—Its Development and Activity* (Chapman and Hall 1971) saw their potential in forming the basis of an undergraduate textbook on wood structure.

As that project progressed Dr Butterfield became aware of the research potential of the scanning electron microscope for examining various features of wood which lie beyond the resolving power of the light microscope but which cannot be observed with a transmission electron microscope because of its limited depth of field. He wrote the book and suggested to Dr Meylan the various micrographs needed for illustrations.

Their work culminated in the publication of *Three-Dimensional Structure of Wood—A Scanning Electron Microscope Study*. It was published in London and two other editions appeared simultaneously in New York and Wellington.

The success of the book astonished both Dr Butterfield and Dr Meylan. Two editions quickly sold out, requests for permission to reproduce the photographs poured in and Cambridge Scientific Instruments, manufacturers of the scanning electron microscopes used, asked for copies of the work for sales promotion of their instruments. The B.B.C. used several micrographs for science TV programmes

Work On Wood Structure



and the Open University also used some of the micrographs in its courses.

The reviews and the general reception given the book encouraged the publishers to ask for a new edition, but what emerged after seven years of hard work was a completely new book, even though the principal title was retained at the insistence of the publishers. *Three-Dimensional Structure of Wood—An Ultrastructural Approach* contained 223 of the best illustrative micrographs of various wood anatomical features from the collection of more than 16,000 the authors had assembled. Their aesthetic and informative value was said to be a highlight. But, said one critic, when one comes to read the text subsequently (and it takes quite a while to do this because one is caught by the beauty of the micrographs) one is impressed by the clarity and simplicity of expression and style, contributing to an immediate understanding of the subject.

The Structure of New Zealand Woods was a five-year joint effort, but it too won immediate acclaim. "Magnificent is the word that comes to mind immediately on first thumbing through this book," said Dr J. M. Harris, F.R.I., Rotorua, in the *New Zealand Journal of Forest Science*. "The whole scale of its production is quite overwhelming... Sample preparation and photography throughout are of the very high standard that has won world-wide recognition for the authors."

In the *Journal of the International Association of Wood Anatomists*, Pieter Baas said the book was a must for reference and teaching libraries and deserved a wide distribution in private libraries, where it would stun the layman visitor with the microstructural beauty of wood.

But perhaps the nicest tribute to the work of the two men came from Professor

A. Krikorian, Department of Biological Science, State University of New York. Writing in the *Quarterly Review of Biology* about their first book, he said: "Nehemiah Grew, the father of plant anatomy, wrote in the *Epistle Dedicatory* of the 'Anatomy of Plants' (1692) that ... 'one who walks about with the meanest Stick holds a piece of Nature's Handicraft which far surpasses the most elaborate Woof or Needle-Work in the World'. This atlas of 59 scanning electron micrographs underscores with new vigor that statement made nearly three centuries ago. The full-page SEM photographs representing various aspects of wood structure are impeccable."

International recognition of Dr Butterfield's research was given in 1979 when he was made a Fellow of the Institute of Wood Science, London. He is currently on the Council of the International Association of Wood Anatomists, based in the Netherlands, and serves on the editorial board of its journal.

Phone Directory Changes

Staff are invited to note the following changes in telephone numbers from those listed in the Internal Directory:

Mr R. P. Borrell,	
Physics 812 or 803	786 or 798
Professor B. J. Clarke,	
Accountancy (HOD) 702	8779
Miss C. E. Cliffe,	
Accountancy, 713	8793
Dr P. L. Cottrell, Physics, 520	691
Professor D. Davy, English, 304	8624
Mr A. M. Dugdale, Law, 624	8770
Professor J. H. Farrar, Law, 605	8758
Dr B. D. Haig, Education, 604	8652
Dr P. M. Harrison, Rel.Stud., 10088662	
Mr C. R. Hasseldine,	
Accountancy, 701	8778
Mrs O. V. Shaw, Journalism, 322	8635
Dr Martin Holland	
Political Science 1025	8847
Mr. N.M. Blampied,	
Psychology, 607	8692

SCIENCE EDUCATION CONFERENCE

The Australian Science Education Research Association will be holding its fifteenth Annual Conference in Melbourne, from 16 May to 18 May. Information on the conference, including guidelines for those wishing to submit papers, is available from the Educational Research and Advisory Unit (contact Mr McKay, 80/850). As well as the usual wide coverage of topics in science education, this year's conference will include a special seminar on the developments in science teaching at primary school level.

Notices

Masonic Awards

The Grand Lodge of Antient, Free and Accepted Masons of New Zealand offers bursaries to full-time students at the University of Canterbury who are entering on their final year of study for their first Bachelor's degree or for a Bachelor's degree with Honours, or for a Master's degree. The purpose of the bursaries is to assist students to continue their studies where by reason of their financial circumstances or from any other cause, they would otherwise be unable to obtain, or would be seriously handicapped in obtaining, the benefits of a university education.

Applicants must be New Zealand citizens and of good character.

Each bursary is tenable for one year and is of the value of \$500.

Details of the scholarship may be obtained from the Registry. Entries close on 31 March each year.

Geographical Society Research Grant

Funds for a grant for research in geography were raised by the New Zealand Geographical Society (Canterbury Branch) from society members, geography graduates, and associates during 1973 to commemorate the University Centennial.

The grant is used to assist candidates for a master's degree in geography who are likely to incur heavy personal expenses in research for their theses.

Applications should be made by letter to the Registrar by 31 March. Full details of expenses should be given and receipts included where possible. A letter of recommendation from the candidate's Head of Department will be required.

Lester Fund

Applications for grants from the Lester Fund will close on 31 March. The fund is used to assist candidates for masters degrees who have incurred heavy personal expenses in research. Claims will be considered only for expenses incurred by the closing date for applications. The total grant awarded to any student will not normally exceed \$200.

Applications should be made by letter to the Registrar. Full details of expenses should be given and receipts included where possible. Where travel expenses are included, candidates should give full details of each journey, showing method of transport and fare if by public transport, or mileage and type of vehicle if by private transport. A letter of recommendation from the candidate's head of department will be required.

Staff Vacancies

Alcoholic Liquor Advisory Council Fellowship in Counselling

Applications are invited for the above appointment, for a period of up to one year in the first instance, with the possibility of reappointment for a further three years. Applicants should possess postgraduate qualifications in either clinical or counselling psychology and have experience in the treatment of alcohol problems.

Duties will include:

- Responsibility for day-to-day administration of the Alcohol Counselling Centre, Christchurch;
- Supervision of the practical training of students taking the M.A. course in Psychology for Alcohol Counsellors, and of Clinical Psychology students as appropriate;
- Some teaching at the post-graduate level in Psychology;
- Such other related duties as may be required.

The salary for the position will be within the scales for Senior Lecturers or Lecturers at Universities in New Zealand. Senior Lecturers: \$27,088 to \$30,127 (bar), to \$34,387 per annum. Lecturers: \$21,660 to \$25,684 per annum.

Applications close on 19 March 1984.

Conditions of Appointment may be obtained from the Registrar or from registrars of all other universities in New Zealand.

Awards For Travel Writing

The New Zealand Tourist and Publicity Department has organised a travel writing award and invites entries from schools, colleges and universities.

Applicants are asked to write an article on tourism in New Zealand and entries will be judged within the following categories: Best open. Best self-illustrated article. Best photo feature (colour slides). Best photo feature (black and white prints). Best profile on a New Zealand tourism personality.

Winners of each category will receive one week's holiday for two at a tourist resort in New Zealand. Entries must be accompanied by an application form which is available from the Head Office of the Tourist and Publicity Department, Wellington, or the Government Tourist Bureau, 65 Cathedral Square. Entries close on 31 March.

Department of Economics Senior Lectureship or Lectureship

Applications are invited from suitably qualified candidates with a good research record for a Senior Lectureship or Lectureship in the Department of Economics which teaches undergraduate and graduate courses in Economics, Econometrics and Economic History.

The salary for Senior Lecturers is on a scale from \$27,088 to \$30,127 (bar), to \$34,387 per annum and for Lecturers is on a scale from \$21,660 to \$25,684 per annum.

Applications close on 25 May. Further particulars and conditions of appointment may be obtained from the Registrar or from registrars of all other universities in New Zealand.

SECRETARIAL SHORTHAND TYPIST (Psychology)

Applications are invited from suitably qualified, experienced persons for the above positions in the Department of Psychology.

The salary will be determined on the University's Clerical/Typing scale up to \$12,522 per annum.

Applications, including full details of work experience, copies of qualifications and testimonials, and a telephone number, close on 12 March with the Registrar.

Holmes Bursary

Applications are invited for grants from the Gertrude Ardagh Holmes Bursary Fund. Closing date for applications is 31 March. The regulations are printed on pages 99 and 100 of the 1981 University of Canterbury *Awards Handbook* and provide that preference be given to students undertaking a medical course. Regulation 2 states: "The bursaries shall be for the purpose of assisting students of ability and good character to commence or continue their studies at the University of Canterbury, who would otherwise by reason of their financial circumstances be unable to do so or be seriously handicapped in doing so. Preference shall be given to students who desire to undertake a medical course. Assistance may be continued to such students after they have proceeded to a medical or dental school in another New Zealand University".

Applications giving full details of financial circumstances should be made by letter to the Registrar.