

depth

No. 5—NOVEMBER 1971

For the Australian
New Zealand staff
of Hewlett-Packard



TRADE SHOWS

The June issue of "Depth" indicated a record in the number of Trade Shows in which the Australian Region was participating during Fiscal Year 1971.

At the time of this edition going to press, the shows concluded are as follows:

14th Survey Congress	Hobart	February 13-19
CETIA	Sydney	February 15-19
I.E.A.C.C.	Melbourne	March 29-April 2
Aust. Bio-Chem. Society Meeting	Brisbane	May 17-20
Physiological & Pharmacological Society Meeting	Canberra	May 19-21
I.R.E.E. 13th National Conference	Melbourne	May 24-28
* International Conference on Cardiology	Melbourne	May 27-29
* Aust. International Education Exhibition	Melbourne	June 28-July 2
** Adelaide	Adelaide	August 16-19
Mass Spectrometry	Sydney	August 23-27
* I.C.M.B.E.	Melbourne	August 23-27
** Perth	Perth	Sept. 27-Oct. 1

* Denotes "International" Shows
 ** Denotes Hewlett-Packard sponsored Show.

Last but by no means least, we will be participating in the Machine Tool Exhibition, to be held in Sydney from October 14-23rd. We will be combining with leading Machine Tool Supplier, Alfred Herbert (A/asia) Pty. Ltd., to

display the 5525B Laser Interferometer and this is the first time in Australia that a calibration instrument of this type has been shown at a Machine Tool Exhibition.

Our greatest effort for the year was centred towards IREE, which we considered to be the most important in the Electronics industry during 1971. Dr. Bernard Oliver, Vice-President of the Research and Development Operations of the Company, was key speaker; and the HP display covered Electronic, Calculator and Data Products. The emphasis at the Electronics display was on new instruments, most of which were on loan by courtesy of the Intercon Region, and our success at this Show was largely due to their co-operation in making the equipment available.

The Display Stands were lined with black cloth, which highlighted the instruments, and this, together with the rich black bean finish of the stands, the red carpet, and black curtaining produced a decor which stressed quality and professionalism as well as dignity. The entire display area was highly complimented by customers, competitors and professional Display Contractors, and the interest shown in what we had to offer plus the fact that many of the Loaner Instruments have been sold subsequent to the Exhibition, truly bears out that HP was "in the limelight at I.R.E.E."



VISITORS

Dr. Bernard Oliver, Vice-President, Research and Development.

John Doyle, Automatic Measurement General Manager, Electronic Products Group, Manufacturing Div.

Don Wolf, Electronic Marketing Manager, Intercontinental.

Bill Klauer, Sales Manager, Marketing Group, Automatic Measurement Division.

Carroll Moore, Marketing Manager, Avondale Division.

Ernie Poblacion, formerly a Data Product Specialist, HP Singapore.

HP Computer Museum
www.hpmuseum.net

For research and education purposes only.

HP STAFF

AS CANBERRA PMG SEES IT

The following were gleaned from docket for long-distance calls sent to Canberra Office.

Mal Kerr	— Mr. Curb, Mr. Ceer, Mr. Kurn, Mr. Cur, Mr. Cure
Lloyd Stott	— Mr. Stat, Mr. Strutt, Mr. Stops
Joan Horley	— Mrs. Holey, Miss Wholy
Doug Cheeseman	— Mr. Chiefman
Irene Bay	— Miss Ire Bay
John Warmington	— Mr. Warmanager
Joy Wingard	— Joy Windgard
John Bieske	— Mr. Bisque
Brian Polglase	— Mr. Poldglaze
Barrie Sutton	— Mr. Stuttern
Bob Bailey	— Mr. Bub Baly
John Springall	— Mr. Springale
Hans Bels	— Hanz Bells.

STATUS CHANGES

JOHN WILLIAMS

From Northern District Manager to Defence Liaison Officer.

JAMES CREED

From Electronic Products Sales Manager to Marketing Communications Manager.

MICHAEL MULLER

From Analytical Products Sales Manager to Analytical/Medical Products Sales Manager.

JOHN ANTHONY ABBIS

From Analytical Field Engineer to Acting Branch Manager — Sydney Office.

Mr. PAUL DUNN

FIRST WITH THE MODEL 10

Mr. Paul Dunn — our roving Calculator ambassador (amongst his many other attributes) in Brisbane, reported the Australasian area's first sale for the new Calculator, Model 10 — on July 14, 1971.

The prize has not yet been confirmed, but it was hinted that the XXXX will flow like water when Bill Thomas next gets to Brisbane.

Congratulations Paul, we're confident there's more where that came from.

MOUNT ISA TRIP

By COLIN HOWARD



My visit to Mt. Isa to carry out a computer training course, took place in February, 1971. With only a limited knowledge of Sydney and Melbourne behind me, I was looking forward with interest to my visit. I had never been to Queensland and I had no idea how hot it would be or what the living would be like in that part of Australia, so far from the snows and frosts of Canberra.

As my aircraft came in to land at Mt. Isa, I was still wondering what "the Mount" was

going to be like. If you look at the Company sign of the Mt. Isa Mines Ltd., you can see the reason for there being a town there at all. The heiroglyphics within the sign, in geological terms, stand for zinc, lead and copper. These three minerals are available in enormous quantities in the Mt. Isa area and there is enough of it to last till the year 2000, at least.

My arrival at the airport was preceded by a sandstorm which, from the window of the DC9 jet, looked like the end of the world. I was even more surprised, in the drought-stricken area, to find torrential rain falling when the aircraft finally touched down. That rain was the first that had fallen for seven months.

After this mixed reception, I was ready for anything by the time I got to Mt. Isa itself, but it turned out to be another surprise. Neat houses, curiously enough all built about two feet off the ground on stilts, a modern shopping centre, the inevitable pubs, a swimming pool, golf links — all this and more.

As you can see from the photo, which was taken looking back over the shopping centre to the Copper Smelter, there is an ever present pall of sulphur fumes. To a stranger these are apparent, but to the Mt. Isa resident it is a part of his life — and means money in the wage packet.



The fumes are an unwanted part of the process of refining copper; the more smoke — the more copper. I was lucky enough to be taken on a guided tour of this process. It starts with the raw copper sulphate ore, which goes through the various grinding mills to the ovens and blast furnaces which produce the pure copper. If you ever want a preview of what hell might be like, look into the mouth of a blast furnace, where you can see molten metal boiling like water.

The contrasts I found on arrival were even more apparent at a barbeque the following week-end. After driving about 30 miles due north of Mt. Isa to a river which, the week-end of my arrival, was reported to be flowing

about two feet deep, I found a sluggish stream with water only inches deep.

One of the funniest recollections I have of Mt. Isa was digging a hole deep enough in the river sand to be able to lie down and get wet. There I was lying in this lukewarm stream in North-west Queensland drinking ice cold beer — from Victoria, of course! That's my idea of luxury.

The following week-end I left Mt. Isa on the early morning "milk-run." I had an extremely interesting trip to Townsville via Cloncurry, Julia Creek, Richmond and Hughenden; then on to Mackay, Brisbane and Sydney and finally, after a total of 18 take-offs and landings in one day, arrived back home in Canberra in the evening.

HONOURS FOR H.P. PEOPLE

In our last issue we showed a photograph of Mark Goldfeld with his Calculator Pro Award. We should mention that Bill Thomas, our Calculator/DMI Product Sales Manager, who was also rated in the top 10 Calculator Field Engineers throughout the world, received a like award. We were hoping to include a photo of Bill but unfortunately he is overseas touring HP factories at present (unfortunate for us, of course, but not for Bill).

CHARITIES COMMITTEE

For the past 12 months we have been working for the Spastic Children's Society, and at an afternoon tea held in the demonstration room, on July 13, Barrie Sutton presented a cheque for \$400.00 to Mrs. Laxton, the Society's representative.



Barrie Sutton presents cheque for Spastic Children.

A new Charities Committee has been elected and a decision was made to support the Victorian Guide Dogs for the Blind Association until we raised enough money to finance the training of a blind person and a guide dog.

The amount of money involved in this is \$1,200. This is an ambitious goal, but with the co-operation of every HP employee, it can be achieved.

On July 14, 1971, the newly elected Charities Committee visited the Guide Dog Centre in Kew to get first hand knowledge on just what was involved in the training of these dogs and were most impressed with a short demonstration given by Len Papley and his dog Rosco.

The new Committee is as follows:

Jim Creed	Pam Gillam
Gill Bennett	Joan Horley
Pam Barrow	Geoff Gaylard
Jan'ice Peterson	Bruce Thompson
Barrie Sutton	John Reid

The first official function organized by the newly elected Charities Committee was a progressive dinner. The dinner was held on Friday, July 30th, and from all the feedback, was a great success. It raised approximately \$70 for the Victorian Guide Dog for the Blind Association.

There were four courses and four different homes in which each course was devoured.

At Margaret and Alan Timmins' home we started with sherries and cheese dips, and from there progressed to Joy and Doug Wingard's soup kitchen. The choice and palatableness of the soups would have pleased the most discerning gourmet.

(Editor's note: This is a biased statement, the soup was made by the writer of this article).



Jim Creed

Next stop was Marg and Jim Creed's Casserole Carousel. Now here they really got down to the serious business of eating; a dozen different types of casseroles were enough to satisfy even the most fastidious of appetites. The wine flowed freely at Marge and Jim's.

The last course, fruit salad, ice cream, bikies and cheese, after dinner mints and coffee, was regaled at Gill and Doug Bennett's home, most people stayed on for a while and as usual last out the door were the Barrows and the Petersons.

Our thanks to everybody for the donations of food and wine, and for making the night such fun.



Coffee at Gill and Doug's Home

On Tuesday, August 10, 1971, Len Papley, from the Guide Dog Centre at Kew, came along and showed us a film which explained the various methods to aid mobility that are available to blind people, and outlined the training programme necessary for both the people and the dogs. With Len was his guide dog "Rosco," who immediately captivated the staff from the moment he gave his first throaty "woof" in answer to Len's instruction to say hello to everyone. Len's outgoing and happy personality made light of the difficulties that face partially sighted or blind people, and the problems to be overcome before they can



be mobile and make an attempt to take a job and re-adjust to a world designed for the sighted.

CAR TREASURE HUNT AND BAR-B-QUE

On the 22nd of August, HPCC held a Car Treasure Hunt and Bar-B-Q., as an outing it was a great success although financially we made around \$2.00 — mostly due to an excess of meat which was, in any case, sent to the Guide Dog Centre.

Starting point was Weir Street, from where competitors proceeded to the check point at Chadstone Shopping Centre! On the way, of course, there were several things to be found and most people had no trouble.

At Check Point 1, there were five tests of skill — more of reasoning than driving ability. The number of people who backed out of the garage without opening the doors, who drove away from the drive-in theatre with the speaker still on their window and who parked at a parking meter without feeding it, would surprise you — that is if you weren't one of the people who actually did those things.

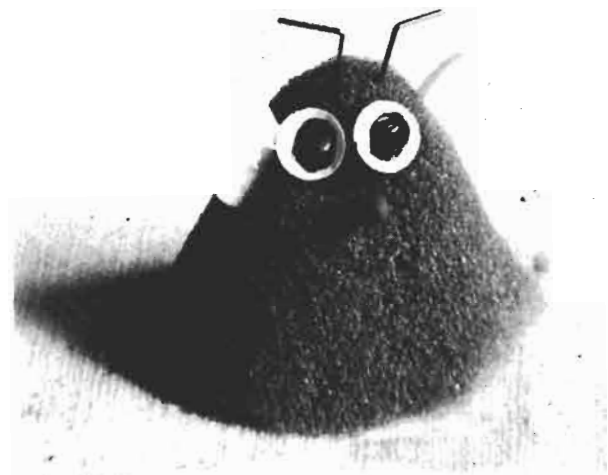
One gentleman (?) when asked to demonstrate what he would do when leaving a normal viewing space at a drive-in movie commenced the demonstration by, as he put it, putting his "BIRD" back!!

After leaving Chadstone, all competitors completed the route, very deviously, to Ferntree Gully National Park. On the way items to be collected included: 3 sheets of toilet paper, 6 oak leaves, 2 Coca-Cola bottle tops, 1 sprig of wattle, 1 "No-Sale" cash register docket, 1 old newspaper, wood for the fire, gum-nuts etc., etc.

The Bar-B-Q which followed the treasure hunt was great and at the conclusion of the meal it was announced that "A WOMAN DRIVER," Judy Garde by name, had won and that the "MARVELLOUS MALE DRIVER" had come last — Doug Cheeseman. He received a suitably inscribed wooden spoon. By way of a speech, the lady who won simply said "Good on the girls."

All in all, it was a fun way to spend Sunday afternoon and our thanks to all who participated.

U.C.O.



In Melbourne, amid the boxes and packaging of the warehouse, there lurks (and I mean lurks) a gentleman of no singular talent. Known to all and sundry as "The Reverend" or "Rev," Geoffrey Gaylard has now turned his various and humour-inspired talents to prove that we don't just sit around all day and work. The numerous shaped and sized pieces of styra-foam and soft foam become the raw materials in the construction of the most unusual menagerie of animals ever to be seen on the face of the earth. A few opened out staples become

whiskers, legs, and arms, and the odd nail or two form many an interesting limb. Eyes materialise out of cardboard, and a pin head becomes the pupil in the middle of a black painted dot, as well as the means of fastening the eyes to assorted shaped heads. Each member of the staff has been presented with an animal of original design and singular appeal.

The photograph accompanying this article is of one of the suggestions (made over a week-end at home) that the Rev. gave a primary teacher for her budding Noah's Arkers to improvise on in class. A kind donation of some raw materials from the HP warehouse to the school will no doubt only add to the epidemic of odd Dr. Suess-like animals, spreading its way across the face of Victoria.

For our interstate and overseas readers, suggestions are being put forward for the formation of a U.C.O. organization. (U.C.O. — Unidentified Creeping Objects). Prizes or various sized straight jackets are to be presented for members sighting the largest number of U.C.O.'s.

JUNGLE DRUMS

From the depths of the Jungle: I don't know whether there is something compelling about living in a jungle, but everyone here seems to have an urge to travel.

Jim Creed is off overseas to visit the U.S. and Canada, and on his return will take on a new assignment as Marketing Communications Manager. So have fun on your trip Jim, and good luck in your new position.

Iris Smith is off once again overseas with her youngest son, Douglas; this time to spend Christmas with her daughter in Scotland. She is sailing to Scotland via South Africa on the "Canberra", then Iris is flying from London via Paris to Johannesburg to spend the New Year with other members of her family. At Durban she rejoins the "Canberra" for the return trip to Australia.

Don Simmons visited South Australia in September holidays to see what real rain was like, and also to enjoy "Aussie" Rules as it should be played — so he says.

Pam Gillam (Patrick) and Joy Wingard are planning a whirlwind tour of New Zealand and the environs in the near future. So look out New Zealand, being used to volcanoes and hurricanes may not be enough to weather this one!

On a different note, Ron Hodgson's eldest daughter has recently announced her engagement and we would like to wish Yvonne and Perry every happiness for the future.

John Bieske has just moved into his new home and has spent many strenuous weekends breaking up rocks for the driveway to enable him to reach the front door in wet weather. He is now in the process of fitting an elaborate system of speakers in the ceiling of his den, family room and bedroom so that he will be surrounded by music when he works and when he plays — romantic what!

Now that the new season is with us, Max Biggins is preparing to wet "Gidget's" bottom once again (Gidget is Max's boat). His old friend Ronnie Maccormick has just moved into and taken up a position opposite him in the jungle (bringing some of her own jungle with her, I might add). It is quite noticeable that Max is now spending even more time out in the field (no doubt to earn Ronnie's bonus).



Ronnie and Max.

Mark Goldfeld has recently taken delivery of his new 9810A Calculator. Within the next few weeks, everyone in the jungle area and its approximate vicinity (including the fellow that waters the plants) will be able to recite backwards any feature of the new machine and all the disadvantages offered by the competition.

There is a strong rumour circulating that Reynold Land is standing for President of the Collingwood Football Club at the next election. If he is successful, Margaret Timmins threatens never to speak to him again.

The following was overheard in the jungle area:

Patrick: "Max you ought to be ashamed of yourself weighing more than Danny."

Max: "Alright, you win, you make me feel small!"

Patrick: "Do you mind!"

John Biscuits: "What do you do at night, Patrick?"

Patrick: "Oh nothing much; I fool around a bit after dinner, but usually have nothing on after 8.00 p.m."



Pam (Patrick) and John

HAPPENINGS

Ruth Naumann, the whiz bridge player, just missed doing the hat trick in recent Bridge Club competition. Ruth and her partner won the first two semi-finals of the competition and came second in the finals. No doubt a three-day migraine had something to do with the champion's performance. Better luck next time, Ruth.

Ron Pritchard, from Export, had an unusual job to do on a Friday in June, 1971. . . . The Medical/Analytical boys required a "guinea pig" for the three channel E.C.G. to be shown to Mike Muller, so Ron was called upon to be the "patient," much to the general mirth and amusement of the Melbourne Office Staff, and much to Ron's unperturbed sense of relaxation. That was, until they turned the current on. Ron swears to this day that he will never be the same again. In his own words, "It was a shocking ordeal for such a bright spark."



Margot Tomlins had an emergency operation on July 14th. Les Lawrence was heard to mutter: "She should have seen me, I'm the medical man around here!" We are pleased to report that our golden-voiced telephonist is once more back on the job and looking extremely fit and well.

Jack Graham has returned to work after an extended illness. Welcome back, Jack.

Brian Polglase took off for a gay time in Singapore two weeks ago, but it didn't turn out so gay after all. Poor Brian, he spent all his time with an infection caused by the inoculation he had before he left Australia. Some people will associate with anything!

Congratulations to Val and Barrie Sutton on the birth of their son, Dean Warwick, on September 22nd. They now have the cast for their very own "My Three Sons" serial. From the size of this young fellow (10 lbs. 4 oz.) he won't stand for any pushing around, just because he is the youngest.

Peter Whitelaw, our Medical Sales Manager, left the firm on 30th June, 1971, to make his way in the big, wide world. His friends at HP presented Peter with an "olde worlde" set of matching bookends, cigarette box with lighter, and ash tray.

To make the farewell "complete," the staff moved in convoys to the "Tower Hotel," where a farewell luncheon really sent Peter (and quite a few others) off in style.

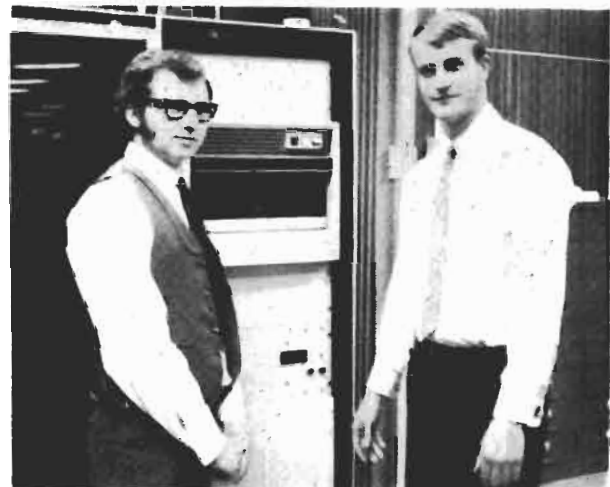


Ray Smith is the new Systems Analyst in Melbourne.

Ray's origins lie in the distant lands on the Western Seaboard of Australia in a city called Perth.

After floundering through the W.A. University, he accepted an exalted teaching post at a High School (Kent Street) and taught science and maths for four years.

Tiring of chalk dust and blackboards, he resigned and left the sunburnt lands to seek his fortunes in the greener pastures of Victoria.



Ray is pictured on the left of Robert Stewart, our new Data Product Service Engineer.

Here he joined the Thomas Borthwick & Sons Meat Company, and spent almost a year mixing computing with meat processing, as a programmer.

From T. B. & Sons he ventured forth once more and found himself this time working for the now historical J. K. Newman & Associates, who had the good fortune to be using an HP Computer.

Finally Ray has settled happily into HP and except for the rubbishing received about Port Melbourne (which he is learning to ignore) he is enjoying his work very much.

Pat Donnelly, our newest member of the staff, joined us on September 24th. She replaces Irene Bay, who is leaving to await a visit from the Stork. Pat has a delightful accent, which is not surprising since she was born in Glasgow, Scotland. She and her husband, Jack, have a seven-year-old daughter, Louise Catherine. Pat and Jack came to Australia six years ago, and after spending four years in Adelaide, moved to Melbourne so that Jack could join his brother in a business of their own. The only ambition that Pat admits to, is to go back "home" for a holiday.



Irene and Pat.

SERVICE STATIC

Since our last edition the Service Dept. has increased by two (people). To the Admin. Staff we welcome Mary Roberts, our new Invoice Typist. Mary is a young married lady, no children as yet, and hails most recently from Queensland.



Mary Roberts

Our No. 2 addition is in the Data Products field — a gent by the name of Rob Stewart (Irish?). Rob and his wife, Cheryl, have a son named Michael. Rob was formerly with Fairchild doing much the same thing he will be doing for us; attending to the needs of (as someone put it) computers and junk!

Frank Jensen has left us for greener pastures. He is due to join HP — N.Z. on November 8th. We wish him well and our disappointment in losing him is only compensated by the fact that he will still be with HP.

Other activities have mainly centred around new acquisitions — some large, some small. Graeme & Maureen Brown have just moved into their new home at Ferntree Gully. John Springall and family have acquired a little bundle of fluff named Cindy. She is a gorgeous little Corgi who has all the traits of puppies, i.e. chewing socks, shoes, and any other interesting object which may present itself before her. One not so good acquisition was one broken leg for Ray Hartley's little boy. Poor little mite was in hospital for ages and being only about two, couldn't quite understand what it was all about, except that he sure didn't like this leg up in the air bit.

Gill and Doug Bennett sold their old speed boat (they don't go so well with holes in 'em). They are now the proud possessors of a Red Terror which travels along at about 64 m.p.h. — great for barefoot skiing if you can — they can't. Whisper has it that Doug and Russell Warmington are going to compete in a 45-mile ski race. To be a competitor one has to complete the distance in about 49 minutes. No one can say they aren't ambitious. The results will be known by the next edition of this news-sheet. In the meantime they will be practising a good deal. 'Tis the writer's opinion that the most important thing to practice is how not to kill yourself when you fall off skis at 60 miles per hour!!

SYDNEY

The new home for Sydney District Office is at last under way. At 8 o'clock on the morning of September 21st the first sod was turned on the site which is located in a new light industrial area at Pymble, some 12 miles from the centre of Sydney.

It was 18 months ago that agreement was reached by management that a new office would be required to house the expanding Northern District Office. Some six months were spent in investigating buildings already built or under construction, to determine their suitability or otherwise, for our operation. In November last, during the visit of Mr. Bill Doolittle, it was decided to accept a proposal put to us by a development company — Morris Developments — to erect a building to our own requirements on a site acceptable to us.

The Pymble site was decided upon since it met a great many of the requirements we had laid down. It was a corner site on which could be erected a building which would provide us with the space needed for present requirements and future growth, not only in terms of people, but in off street car parking as well — which for a sales and service oriented company is vital. The site was also within a focal point of the location of a majority of our bigger customers and also of the living locations of the majority of our present staff, and is located about 200 yards from the Pacific Highway — the main arterial road running north from Sydney — and also the same distance from Ring Road 3 — one of the main distributor highways connecting the industrial suburbs of the west of Sydney with the “bedroom” suburbs located on the coastal fringes.

The building itself will be of three levels — due to the nature of the site — and will also provide three levels of parking — two underground and one at ground level. Total area will be of approximately 11,000 square feet



John at building site

divided into four equal areas, and will be fully air conditioned. Construction will be of pure white autoclaved concrete blocks with “split rock” surface and will have tinted windows set into brown aluminium frames around two sides of the building.

You may ask why, when agreement was reached in principle in November, it has taken 10 months for work to commence. This same question has also been asked by the people of Sydney Office quite repeatedly. The answer is simple — to get a set of plans agreeable to HP and developer and local Council and Board of Fire Commissioners and Department of Labour and Industry, is not an easy matter, and has caused many a headache (and heartache) to those of us in HP who have been involved. Hopefully this is all behind us now and I look forward to “Opening Day,” which is expected to be sometime in April, 1972.

JOHN L. WILLIAMS.

There are four new staff members in the Sydney Office.

Peter Hertner joined Bill Thomas in the Calculator-D.M.I. discipline. Peter was employed by Hewlett-Packard in Zurich before returning to Australia. He is married and has two children. Peter says his hobbies are eating, drinking, playing chess and reading — in that order.

John Raven has joined Alan Fern in the Service Department. John is from England and his hobby is motoring.

Barbara Coad replaces Margaret Bradshaw as Secretary to the District Manager. Barbara belongs to an historical society and likes going to the theatre.

Helena Bourke is the youngest member of the group. She likes snow skiing, squash and swimming. Helena is Secretary to the Analytical and Data Products Field Engineers and also helps Alan Fern.



Peter



Barbara



Helena



John

ADELAIDE

Gray Morgan has only “happy people” in the Adelaide Office. At the slightest indication of disharmony, the dissenter is given a copy of the morale booster printed below:

WHEN UTOPIA WAS 66 HOURS AND SIXTEEN PENCE PER WEEK:

If you feel that today’s rat race is getting a bit much and you would like to go back in time 118 years for a period of relaxation, do you know what you would be letting yourself in for?

OFFICE STAFF PRACTICES:

1. Godliness, Cleanliness and Punctuality are the necessities of a good business.
2. This firm has reduced the hours of work and the Clerical Staff will now only have to be present between the hours of 7.00 a.m. and 6.00 p.m. on week-days.

3. Daily prayers will be held each morning in the Main Office. The Clerical Staff will be present.
4. Clothing must be of a sober nature. The Clerical Staff will not disport themselves in raiment of bright colours, nor will they wear hose unless in good repair.
5. Overshoes and topcoats may not be worn in the office, but neck-scarves and head-wear may be worn in inclement weather.
6. A stove is provided for the benefit of the Clerical Staff. Coal and wood must be kept in the locker. It is recommended that each member of the Clerical Staff bring four pounds of coal each day during the cold weather.
7. No member of the Clerical Staff may leave the room without permission from Mr. Rogers. The calls of nature are permitted and Clerical Staff may use the garden below the second gate. This area must be kept in good order.
8. No talking is allowed during business hours.
9. The craving of tobacco, wines and spirits is a human weakness and, as such, is forbidden to all members of the Clerical Staff.
10. Now that the hours of business have been drastically reduced, the partaking of food is allowed between 11.30 a.m. and 12.30 p.m. but work will NOT on any account cease.
11. Members of the Clerical Staff will provide their own pens. A new sharpener is available on application to Mr. Rogers.
12. Mr. Rogers will nominate the Senior Clerk to be responsible for the cleanliness of the Main Office and all boys and juniors will report to him before prayers, and will remain after closing hours for similar work. Brushes, Brooms, Scrubbers and Soap are provided by the owners.
13. The new increased weekly rates are as hereunder:

Junior Boys (to 11 years of age)	1/4d.
Boys (to 14 years of age)	2/1d.
Juniors	4/8d.
Clerks	10/9d.
Senior Clerks (after 15 years with the owner)	21/-d.

The owners recognise the generosity of the new pay rates but will expect a great rise in output of work to compensate for these new Utopian conditions.

This article appeared in the June issue of the Glenvaal Manson Bulletin. It was sent to members of the staff of the Burnley Office Mill in 1852.

PERTH

From Perth comes the message, "We have been very busy lately and there is nothing much to report.

BRISBANE

BRISBANE OFFICE MOVES

After the glowing description of our premises in Bardon in the last issue of "Depth," it's something of a comedown to say we've moved — this time about seven miles west of Brisbane to Kenmore. We'd like to be able to report that the reason for the move was a massive increase in staff (like one more person) but it really was to avoid the tax man and bills.

Brisbane Office is growing though; in terms of sales we were very pleased to get the first Australian order for the new Model 10 Calculator.

Surprisingly enough on the social scene we haven't had too many visitors [from "down south" — maybe they haven't heard about Brisbane's warm, dry winters.

Since this is likely to be the last issue of "Depth" before Christmas, we'd like to show how forward-thinking we are and wish all — HP-ites and their families a very pleasant Christmas and successful 1972.

NEW ZEALAND

We've heard nothing from New Zealand, but we know that Frank Jensen will be arriving in November to join the staff and that there are two new secretaries, Janice Musgrove and Christine Faass.

CANBERRA

Since our last contribution to DEPTH we have had one change in the Canberra Staff.

Margaret Bradshaw left us to join HP in Sydney. We tried to warn her about the wild mob at Sydney, but to no avail. Her place was taken by Liz Cutler, who came to us from the Winston Churchill Memorial Trust.

Originally from Forbes, Liz spends a lot of time on her parents' property in that area. In fact one of her favourite hobbies is repairing the VW she drives to and from the family estate.



After only a short time at HP Liz has become an indispensable member of the Canberra Staff. She was married to Andris Dienavs in June, and they will settle in Canberra. Andris has just recently "swallowed the anchor," and as all you seafarers know, that means he's finally given up the good life in the Navy to live ashore. We all hope Liz and Andris will be very

happy together. From this photo, it looks like they are getting off to a good start!

Colin continues to play every Saturday for the local city football team. Our educated readers will know that by "football" we mean soccer. None of this aerial acrobatics or mud grunting for our boy.

For those of you who haven't seen the office of HP Canberra here is an everyday scene.

That is Colin on the left in his usual hard-working position.



Colin, Liz, Dick.

FROM THE GENERAL MANAGER



Many of you are thoroughly conversant with the troubled era with which we are currently concerned. Many of the problems are not restricted to Australia but are very much in evidence throughout the rest of the free world.

One of the greatest problems facing us in Australia and in New Zealand is how best to counter the spiralling inflationary period of these times.

The government have endeavoured to curb the current trends in a number of ways, including the postponement of purchase of capital equipment in many areas of research and development and this action naturally has had a very direct influence on our own business through Fiscal FY71.

Whilst we are certainly below quotas in most areas, our general results in the Electronic Instruments segment of our production and also overall results of the Calculator product type

have been rewarding and although it appears unlikely that we will be successful in meeting quotas at year end, it would seem that we will show some gains over FY70.

We are all aware of the pressures, not only within our own company, but throughout Australia and New Zealand, for increased salaries, better conditions, etc., and I should point out that our conditions and benefits are generally superior to those available from most organizations of a similar nature, however it's an essential ingredient to our well-being that we all make a conscientious effort for more productivity.

This is not requesting something that's unrealistic or impossible for many of our staff. New employees during the past year or two must be more mature and have gained a great deal more experience and if this is correctly applied to the task at hand, I'm sure that a greater contribution will be the result.

Hand in hand with greater productivity and efficiency is the need for a continuing awareness that unwarranted time off for various reasons, plays havoc with our productivity and makes life much more difficult for those who must carry this perhaps unnecessary burden.

It will be essential to our well being, company and individual alike, that each member of the staff plays his part in ensuring satisfactory productivity within reasonable expense limits.

J. WARMINGTON.



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ENGAGEMENTS.

Yvonne Hodgson (Ron's daughter) and Perry Sampson. Tentative wedding date — May 1972.



MARRIAGES.

Liz Cutler to Andris Dienavs, Canberra, June 19, 1971.

Genevieve Antier to Michael Muller, Melbourne, December 6, 1971.

Lynette Greensmith to Ian Johnston, Melbourne, December 4, 1971.



NEW HOMES

John and Noeleen Bieske — Heathmont
Jan and Neville Peterson — Mulgrave
Beverley and Ron Pritchard — Ferntree Gully
Maureen and Graeme Brown — Ferntree Gully
Irene and Peter Bay — Ferntree Gully
Gill and Doug Bennett — Burwood
Irene and Danny Kovacs — Ashwood
Margot and Ronnie Tomlins — Malvern



BIRTHS.

To Rosemary and John Haugh, a daughter, Jodie Rosemary, in July.

To Val and Barrie Sutton, a son, Dean Warwick, on September 22nd. (10lbs. 4ozs.!)

To Marilyn and Ralph Pfisterer, a daughter, Klarissa, on October 6th.

To Pat and Alan Fern, a son, Martin Andrew, on November 4th.



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The Keynote Address was given by Dr. B. M. Oliver (left), on the occasion of the official opening of the 13th National Radio and Electronics Engineering Convention, University of Melbourne, May 24.

Society and Technology in the Seventies

B. M. OLIVER*

It's a real pleasure for me to be once again in Australia and to be able to speak to you tonight. I have long had a very warm spot in my heart for your country and its people; a feeling that no doubt began with my first shipboard romance, which was with an Aussie lass from Fremantle. My first visit here was eight years ago, and the warmth of your hospitality on that occasion was quite memorable. I saw Australia then, as I see it now, a country of opportunity where the friendliness of the frontier has not yet vanished—a country following a similar course of development to my own country—and one I think that can profit by our mistakes.

The eight years that have gone by since my first visit have brought profound changes in the world and in our social attitudes. Certainly these changes have been profound in the U.S. and I suspect they have affected you as well. But if I am wrong in assuming you share our problems, please forgive my parochialism. Take my remarks then as a forewarning of what may happen here when your population densities match ours.

Eight years ago President Kennedy had not yet met his sudden death by an assassin's bullet. Only a short time earlier he had authorized the Apollo program to land a man on the moon by 1970. He had also begun to escalate the involvement of the U.S. in Vietnam, one of those little problem areas that seemed to require our attention as keeper of the world's peace.

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The South Vietnamese, let us all recall, were being massacred and their villages burned by the communist dominated Viet Cong. Who would not want to put a stop to that? Eight years ago we were a vigorous, confident nation, reasonably well united and unassailed by serious self-doubt. Well, these eight years have taken their toll.

As the Vietnam war has dragged on, dissent, some of it no doubt communist induced, but much of it honest, has grown until it seriously divides my country today. Ultra-liberal teachers in our public schools, who believe the schools should be agents for social change, rather than sanctuaries in which to gain knowledge and perspective, have helped to incite revolt and rebellion in our youth. The normal generation gap has widened into an abyss. Radical youth groups stalk our campuses and our streets bombing the institutions that support them.

Racial strife has flared, producing its share of riots, burnings and bitterness, but also some progress. The drug culture has hit us hard from college clear down into the elementary schools. Ironically, more young Americans have died of drug abuse in the last four years than in the entire Vietnam war, and we have not seen the last of either of these insanities.

Along with the hippie and drug cultures has come a revival of interest in mysticism and occult religion—a trend indicative of the philosophical confusion of our youth, and very distressing to most of us, who had imagined man was at long last about to free himself

forever from such arcane nonsense—from the grip of mumbo jumbo. Many young people are seeking a life style in which science and technology play no part—a life-style conceived of as idyllic, but in fact retrogressive, often unsanitary, and usually economically unsound. Oh, it's been a great eight years!

It's hard to believe that these were the same years when man first left the earth in spaceships, first saw his planet from afar—a beautiful blue-green jewel in space flecked with clouds, and first walked on the moon. Nowhere is the dichotomy of the scientific versus the non-scientific culture more glaringly evident than in the contrast between the space program on the one hand and hippie communes on the other. In the former we see man, through science and technology expanding his horizons, opening up new frontiers of exploration and knowledge and seeking to unify and educate the world via satellite communication. In the latter we see youth, our hope for the future, walling themselves off into primitive, isolated and therefore eventually inbred, ignorant, and disease-ridden enclaves. How can such divergent trends go on in the same supposedly enlightened world?

The scientific culture pictures itself leading man toward ever more knowledge, toward a fuller life and toward a destiny too great to be limited to this planet.

The non-scientific culture, and particularly our youth, see science and technology as a threat to man's survival—as the cause of pollution and the road to atomic extinction. Talk about bad public relations! The scientific community is suffering from the worst public relations in human history. Enrolment in science and engineering classes is declining and unless we can change the attitudes of young people, we may be not only the first but also the last generation on earth to venture into space.

We must react and react quickly to the fact that science, which for its entire history up until these decades, has represented a threat to the establishment, i.e. to the church, now has become the establishment. We are no longer insurgents discovering new truth that threatens the old order, we have become identified with the old order. The great pity is that this is mis-identification, but we do not protest it.

Because science and technology, as the servants of society, have directed their energies toward meeting the demands of that society, youth assumes that scientists and engineers share its ideologies. By and large we do not. The moral and ethical beliefs of the non-scientific part of our culture have not kept pace with our scientific knowledge and we, the scientists, have allowed that gap to widen.

Young people need to develop a philosophy to guide their lives, just as we have needed one. But where can they turn? The church, the traditional source of such guidance, no longer has a salable product. Only a fundamentalist few any longer believes in a heaven and hell or a diety judge that punishes the wicked or rewards the righteous with eternal bliss. In any event, morals, to the modern mind, should be something more than a set of ground rules whereby one qualifies for participation in a sort of cosmic retirement plan.

The gap between science and orthodoxy was never wider than it is today. I say this in spite of certain modern evangelists who proclaim a harmony that does not exist. Try telling one of them that consciousness requires matter to embody in a stable structure the necessary data processing and information storage capacity—so how can there be a disembodied soul?—and see how far you get!

Can youth turn to science then for moral guidance? Science has conspicuously avoided discussing moral questions. This is probably a hangover from an ancient cartel agreement with the church. You know—you do your thing, I'll do mine. So youth finds us unprepared to give any guidance and turns to—what? Marx? East Indian religions, palatable because inscrutable? Drugs?

Is it not time, and past time, that science, having destroyed the religious basis for morality accepted the obligation to provide a new and rational basis for human behaviour—for our ethics? It seems to me that science has led us to a new reverence for *living* things, and toward a morality that seeks to advance man and preserve his world, rather than to insure an individual his reward in heaven.

If we as moral scientists and engineers can proclaim those things "good" that ensure the survival, growth, and evolution of mankind, and the protection of the environment he shares with other life on this planet.

If conversely we can proclaim those things "bad" that diminish in any way man's chance of survival, or of his continued development, or his ability to preserve other life.

If we can assert these concepts as the basis of our faith, I think we will find young people on our side once more.

Now these criteria, which may be called humanistic values, often lead to traditional codes of behaviour. For example, the Christian ethic, which is in fact found in many religions, does not seem to require a heaven or hell or a soul to be a valid principle.

To treat others as you would be treated is simply reciprocity applied to selfishness. Belief in man's future leads one to condemn war, not only for its horrors, but also because, with our selective service, it kills off the most physically and mentally fit among our youth. War is dysgenic.

On the other hand these same criteria, combined with our present knowledge, often lead to different value judgments than the church would make. For example, fecundity, once a social asset, has become a liability. This is becoming commonly accepted today. Of all the problems facing us none is more crucial to the survival of civilization than population control. We are faced with the alternatives of rational control, or wars of extinction or slow starvation.

But birth control holds a great potential danger. If it is practised only by those intelligent enough to realize its value, we will incur racial dysgenesis—that is, we will degrade our genetic stock.

We must develop birth control means that statistically improve our stock—that are eugenic—self-selective means that do not require anyone to sit in judgment. We need a

birth control means that is effective under default, one that requires conscious, planned steps to be taken in order to have the child, rather than to avoid having it.

Perhaps the most important change of all that is brought about by my suggested humanistic morality is that there is no higher authority than man himself to appeal to. As Arthur Miller says "There's no one on the bench". Prayer is replaced by purposeful rational action.

Very well then. As moral scientists and engineers what purposeful rational actions should we take? I think there is no question about it. We must solve the ecological problems posed by our population and by the demands of our technological society. If we do not, that society is doomed. This I believe to be the challenge to technology in the seventies.

In approaching these problems I think we need to remind ourselves that our goal is to survive not for just another generation or two, but for as long as the sun shall shine—for at least another billion years. When we define the goal this way new priorities become apparent. Some of the ecological problems about which there have been the most concern, such as smog and noise, become much less important than others.

The most important ecological problem of all in terms of immediate threat to our technology based society is the depletion of our fossil fuel reserves and of our reserves of certain metals. There has been a great deal of attention over the last two decades devoted to developing the so-called under-developed countries. Fortunately these efforts have been largely unsuccessful. I say fortunately because if they had been successful we'd be in deep trouble. If the entire world were now at the same standard of living that we in the U.S. and you here enjoy, and if no steps were taken to recycle metals, we'd run out of

Chromium	in	45 years
Nickel	in	25 years
Tungsten	in	13 years
Copper	in	12 years
Lead	in	11 years
Zinc and Tin	in	9 years
Molybdenum	in	8 years
Mercury	in	4 years
Silver	in	1 year

Where would we be without these metals? What will happen to technology in our children's and grandchildren's time if we don't begin to recycle them completely, and do so as soon as we can?

More important than *where* we dump our garbage is what we waste in dumping it. Atoms don't wear out they just get lost. We must stop increasing the chemical entropy of our planet. Clearly we must develop regulations requiring the individual housewife and industry to segregate their garbage into such categories as metals, glass, plastic, paper and degradable organics. The last can be composted and returned to the soil, the others must be sorted and reused.

A whole new salvage industry must be established and the technologies of machine sorting and of refinement of scrap must be developed. I want each of you to start feeling guilty every time you throw away a toothpaste

tube or a piece of photographic film with its precious silver.

The matter of our oil reserves is just as alarming. At the present time the world usage of oil is about 45 million barrels per day, or about 16 billion barrels per year. The known reserves are estimated to be of the order of 600 billion barrels, or enough for only 37 more years with no increase in rate. In addition the rate of increase of consumption has been doubling every 8 years. There undoubtedly are undiscovered reserves, but their discovery cannot keep pace with the growing usage very long.

Unless we convert to nuclear power and do so at once, our children are literally going to run out of gas. The uproar over pollution today will be nothing compared to that that will arise the day they get up, turn on the light, and . . . no light. Think of it. No light. No heat. No refrigeration. No cars. No trains. No planes. A few ships. No place to keep a horse and nothing to feed it. Nothing for people to eat either.

Maybe the kids in communes are right after all. Learn to live off the land.

We're going to look pretty ridiculous and pretty criminal, we moral scientists, if we let this happen. Especially since we can prevent it if we act now. Fast breeder reactors can supply our energy needs for millenia. Fusion reactors (if we can invent them) will supply our needs forever. We must begin building nuclear power plants not just to supplement fossil fuel plants, but also to replace them. We must save our oil reserves for mobile, portable and emergency power needs and for important chemical processes, until we can invent other sources and processes.

We should begin a program of public education about nuclear power at once. Safety is not a problem. The radiation level close to a modern nuclear plant in full normal operation is about 1% of the natural background—less of an increase than you get from sitting on granite steps or climbing to the top of a high hill.

Under the worst conceivable accident—the saboteur who manages, after ten hours labour, to jimmy all the control rods and interlocks and to cause the reactor to melt—the result is not the blinding flash and mushroom cloud that haunts the public mind, but only an abnormally high radiation leakage that could cause death under prolonged exposure. Living by a nuclear plant is 1 000 times less dangerous than living below a hydroelectric dam.

The public needs to be told these things and we must do it. They need to understand that the so-called thermal pollution from nuclear plants is no greater than from existing fossil fuel plants—both have about the same Carnot efficiency—but that the latter pollutes the air while the former does not. But what we really should do is site the nuclear plants near metropolitan areas and use the waste heat as hot water to supply industrial and domestic needs and to heat our homes. Every time we use a gallon of electrically heated water we cause two more gallons to be wasted in cooling the power plant. Using one gallon of the hot water produced in cooling the plant thus saves three.

The economics and conservation of resources that are possible through applied technology must be brought

about through education and legislation, and engineers must take an active role in this education and in shaping the legislation.

Let me quote from a recent ASEE brochure : " Making Tomorrow Happen " .

" Let's agree on another point. If man's survival is being endangered by technology, then there's little doubt that his survival also turns on technology. Part of the solution to the ultimate problem, then, will obviously have to be technological. Equally obvious : the major job of solving that problem must thus be entrusted to men and women capable of dealing professionally with it—the men and women professionally known as engineers.

If this is so, and it's hard to believe otherwise, then a subtle and important change must take place in the ranks of American leadership. Historically, the men who have shaped this country—the men who have directed it, governed it and handled its political, social and financial affairs—have been men who were trained as lawyers, businessmen, entrepreneurs ; these leaders had seldom

been trained as scientists or engineers. In fact, their insight into engineering was often much less than what engineers knew of the liberal arts, humanities, and social sciences. Now, however, one can see far enough into the future—a disquieting, almost frightening future—to know that the kind of leadership we will need must include both engineers and scientists."

Scientists and engineers can no longer afford to play the role of servants to society, building its cars, planes and bombs without regard for their effect on society. We are part of that society—a part with more power and therefore more responsibility than ever before. We must insure that our efforts are directed at those problems we know are important. We must become as important contributors to world peace and to man's survival as we have been to world war and man's destruction. This is the task I see ahead of us. If we are successful we can leave our children the greatest legacy of all : an unscarred world at peace, one with an indefinite future before it.