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# **BARRY LEE FANKHAUSER - A DEDICATED FASTIDIOUS SCIENTIST AND KEEN PARTY MAN (1943-2014)**

STUART BEDFORD

Barry Lee Fankhauser (b. 1943) passed away peacefully in Canberra on 21 January 2014. Barry was originally from the United States but spent six years in New Zealand at Otago University in the early part of the 1980s completing a PhD. His stay in New Zealand was relatively short but his influence was substantial and he remained life-long friends with many of his former archaeological colleagues, fellow students and teachers. He very much enjoyed the 50<sup>th</sup> anniversary NZAA conference in New Plymouth in 2004 and was a member of NZAA until very recently.

Barry was born into a large family during World War Two and was brought up on a dairy farm in Wisconsin. The very exotic family name, the varied spelling and pronunciation of which over the years always amused him, related to his Swiss heritage. In many ways he should never really have left the Midwest or for that matter ever gone to university but Barry was one out of the bag - he was the only one in his large extended family from that region that has ever done either. He always kept in contact with his family and made regular visits back to Wisconsin but on his return was always very pleased with the fact that he had left. He remained somewhat stunned that all his family have always and still vote Republican.

His mother was very influential in encouraging Barry to follow his interests and particularly his interests in music (she was musical herself) and to head off to university. He made the most of his opportunities getting a BSc in chemistry in Wisconsin and was involved in all sorts of musical performances including forming the band known as the Chessmen. They cut a record of which he was always very proud. He remained keen on music all his life. Getting a BSc in chemistry in the 1960s meant an immediate job and he joined the giant 3M company straight away. This was a company he could have stayed with for the rest of his life if it had not been for his interest in the wider world - there was also the issue of the Vietnam War and the strong possibility of being drafted. He was in fact drafted but at the same time applied for a posting with the Peace Corps and appealed the draft. The army however was not to be brushed off so lightly...his appeal was declined. By this stage Barry was further down the track

in his Peace Corps recruitment, moving to a different part of the States ready to be shipped off to Nigeria. Draft letters (and subsequent appeals) followed him all the way to Nigeria. The only thing that saved him was turning 25 soon after he arrived in Nigeria - the army let him go.



*Figure 1: The famous Fankhauser smile. Foss Leach and Barry at Hanauma Bay cliff-face, Hawaii 1980 (photo Graeme K Ward).*

Barry's next stop was Hawaii in the 1970s where he gained an MSc in Chemistry and work in a lab. He thought he had arrived in paradise. A wonderful climate, beautiful woman and great conditions for cultivating a whole range of crops including his favourite drug. However, he was miraculously encouraged by Foss Leach in the late 1970s to shift to Dunedin and start a PhD.

Foss takes up the story of his recruitment and other adventures with Barry:

"I first met Barry Fankhauser at the 16th International Symposium on Archaeometry and Archaeological Prospection in the National Museum of Antiquities in Edinburgh, March 1976. There were several sessions on Thermoluminescence (TL) dating led by Martin Aitken and Stuart Fleming, which was the reason Barry was attending. At that time Barry was employed in the Chemistry Department, University of Hawaii and was doing TL research there. At the conference there was a lot of interest in an emerging organisation called PACT (The Parliamentary Assembly of the Council of Europe) and its possible overlap with the activities of the British Archaeometry group, and a special session was held on this issue as the last event of the Wednesday. It was followed by an invitation to adjourn for sherry at the National Gallery of Scotland. It was at this event that I ran into Barry. I clearly recall seeing him standing alone by the large table with bottles of sherry, served by immaculately dressed and severe looking waiters. I went up and was offered a glass. I took a sip, and to break the ice commented to Barry along the lines of *This Cockburn stuff is a bit of alright*. The waiter hissed the correct pronunciation for the sherry, and mumbled something that sounded suspiciously like *you ignorant colonial*. At this point Barry and I became good friends and determined that we should enjoy more of this famous sherry together, which indeed we did. Neither of us later recalled anything about PACT.

We found we had a lot in common, and sat together for quite a few of the sessions. Although Barry was primarily there for the TL papers, we had a lot of overlapping interests and were both intrigued by a contribution from a Polish medical physicist called Karl Ettinger on a nuclear reaction that could be used to date jade artefacts. I was on sabbatical leave and was working in a nuclear physics laboratory in England, experimenting with similar reactions. Barry thought it might be possible to use an accelerator in New Zealand with the Ettinger reaction on greenstone artefacts. I had planned to be in Hawaii a few months later and Barry suggested that we might continue discussions on this and other areas of mutual interest with suitable lubrication.

I arrived in Honolulu in the middle of the night and Barry whisked me off to a party. This was already well underway, with more than half of the party-goers stark naked, some dancing to loud music, some trying to hold a conversation, shouting over the din. After drinking our fair share we moved on

to Barry's apartment where I was introduced to his personal supply of weed. Barry was very proud of this and, as I found during the next few days, it was cultivated and harvested at the top of a large Frangipani tree, cunningly disguised among the vegetation, mainly to avoid theft. In spite of being already well primed with wine, and the fact that this was my initiation to weed, we smoked several joints together while listening to music. I kept telling Barry that this stuff has no discernible effect, but at a certain point I noticed that Julian Bream's guitar started to sound different, with long extended chords fading off up in the air like a long swirling stream of smoke. I won't go into further details about my first night with Barry in Honolulu, except to say that there was a mixture of snapshots involving a motorway with cars tearing around, a supermarket, police, an ambulance, hospital with a large breasted nurse, and a straight-jacket.

After a few days sobering up we started some serious research in his TL laboratory, looking at the glow curve characteristics of different types of New Zealand obsidian. This was later jointly published in the *Journal of the Royal Society of New Zealand* in 1978. I was immensely impressed with the broad ranging and deep knowledge that Barry had in several branches of science, and when he pointed out that his lack of a doctorate was hampering professional advancement I suggested he should consider enrolling at Otago University.

I was in the process of setting up a new laboratory specialising in archaeometry at the time and had all the necessary modular electronic amplifiers and power suppliers for XRF equipment that could easily be allocated to carry out TL research. Barry had his own personal TL oven and photomultiplier, so it was a relatively simple matter to get a TL facility fully operational. The electronics section in the Department of Physics made the high current-delivering power supply needed for the oven.

The problems with TL research have very little to do with equipment and are all about using it and understanding what you are doing. Barry dedicated himself to exploring TL in an entirely new field - the dating of pre-European Māori earth ovens. His fastidious attention to detail, chasing down every avenue required for this project to be successful speaks volumes of Barry's scientific integrity and know-how. He somehow found time for fun, music, a personal life, and at the same time research for his doctorate. A lot of his laboratory work was done in the middle of the night when things were quiet and stable, minimising that curse of TL research - spurious thermoluminescence.

Barry felt that he could not always trust the results of other people's archaeological field research and excavations, so to get the most reliable oven stone samples for dating he decided to carry out his own excavation. Since he had never done this before, he had to learn along the way, but he was determined that the contextual results would be unchallengeable and any radiocarbon dating would be as reliable as possible. It also meant placing dosimeters in the same

places as the oven stones and working out the annual radiation yields so that the final TL measurements on the quartz in oven stones could be calibrated to actual years since firing. Not content with just excavating any old earth oven he chose to investigate those associated with a relatively unknown Māori field feature, the *umu tī*. These are enormous ovens with up to a metric ton of rocks specifically designed to cook the roots and trunk of cabbage trees. This took Barry into entirely new avenues of research, looking at the food chemistry of the cabbage tree after pressure-cooking samples in the laboratory, and residue analysis of archaeological soils. His discoveries in this area alone were worthy of the doctorate, but he was determined to leave no avenue unexplored. His final dissertation is a veritable *tour de force*, combining several branches of archaeological science.

I have had little contact with Barry since he moved to Australia but I have many enduring memories of him. He loved a party and had the most infectious smile of any person I have met. Not many people devote themselves to the cause of science with such diligence and self sacrifice as he did. Barry deserved greater recognition for his contribution to knowledge than he has received. Radiocarbon dating is in deep trouble when applied to such a short chronology as New Zealand, producing ambiguous multi-nodal answers to simple problems. Some day in the future Barry's highly original research will be rediscovered, and his technique of dating, when applied, will help to sort out the mess the New Zealand chronology is presently in" (*Foss Leach 11/02/14*).

Warren Gumbley was a fellow student at Otago and fondly remembers participating on the *umu-tī* excavations and other things with Barry:

"Barry's excavations for his PhD were the first I worked on and this was how I first met him. It was February 1982 and he was digging *umu-tī* in South Canterbury. It was the first of a series of educational adventures with Barry over the next few years. The *umu-tī* were spectacularly large and the ground very hard. Barry, always a meticulous scientist, insisted that we worked with care and precision and damn the adversity. The weather was exceptionally hot but Barry kept us at it, only relenting on the day it reached 37 degrees when we evacuated to the local river. After each day was over Barry was just as dedicated to the post-excavation activities essential to the morale of any crew. Regardless of the levities of the night before Barry was up early in the morning cheerily (perhaps gleefully) striding among the tents reminding us it was "time to rise and shine".

Afterwards I worked with Barry on the Clutha Valley Project for Neville Ritchie and got to know him much better as a friend. He was a man of many resources with enormous enthusiasm for the Blues and generally having a good time (he did have a serious side too). Among other things, Barry taught me how to brew beer, an activity he undertook with his usual precision and enthusiasm

in a well-organised operation centred in the cleaning lab (the university was a gentler more relaxed institution in the 1980s). Many people suffered (happily) from Barry's expertise in this area. Typically his skill and largesse resulted in a remarkably raucous sashimi party in the Stage 3 lab. We all thought this function was a great success but apparently the university authorities were less impressed and issued Foss Leach (the instigator) with a 'request' for an explanation for the repair bill.

Barry finished at Otago about the same I did and he headed off to Canberra and I simply headed off. We only caught up twice in the next twenty years, once at a party at Foss and Janet's in Wellington in the mid 1990s and the last time at the NZAA's 50th anniversary bash in New Plymouth in 2004. It was great to see Barry again – once again he was an inspiration. After that I kept in touch with Barry through friends and it was a dreadful shock to hear of his stroke a few years ago. His recent death is the end of an era but my fond memories of Barry will stay with me" (Warren Gumbley 12/02/14).



*Figure 2: Neville Ritchie, Barry and Stuart Bedford discussing nonsense, Hamilton, 1990 (photo S. Bedford)*

Neville Ritchie recalls being a fellow student and employer of Barry:

"I first met Barry in the early 1980s when he came to New Zealand from Hawaii and later embarked on a PhD at the University of Otago in Dunedin. At the time I was the Project Archaeologist on the Clutha Power Project and was fortunate to be in position to offer employment to dozens of students (mainly

from the University of Otago Anthropology Department) to assist with field recording and archaeological investigations during the University holiday periods. I first employed Barry to work on the Chinese sites in the Upper Clutha in 1982 and later hired him as a crew chief at the Arrowtown Chinese Camp site in 1983.

By then he had commenced work on his PhD subject-thermoluminescence of hāngi stones and had got permission to investigate several umu-tī sites in North Otago-South Canterbury. The Clutha excavation crew spent over a week with Barry on these excavations.

About the same time I was accepted as a PhD student at Otago (while working full time on the Clutha project), so on my visits to Dunedin I saw a lot of Barry as a fellow PhD student and regularly stayed at his home in North East Valley where we had many memorable sessions with other students centred round his home brews and wines. We submitted our PhDs within months of each other in early 1986. Barry's initial training as an industrial chemist gave him a wonderful ability to fabricate just about any product from toothpaste to washing powder which he did. He also could turn his hand to fixing any electrical appliance, as I know from personal experience as he repaired some of my clapped out appliances and did maintenance on my vehicles during his fieldwork stints with me in Central Otago.

Sadly, although I saw and stayed with Barry a few times after he moved to Canberra, I never got to see him again after his stroke, something I will always regret. On the other hand, it would have been very distressing to see him laid-up. I am glad to have great memories of Barry when he was fit and able and shared his camaraderie and joie de vie. He was a fun and inspirational guy and I rue his passing" (*Neville Ritchie 12/02/14*).

Karl Gillies, another former Otago student studying at the same time as Barry remembers this great party tale:

"Barry and I became good friends when we were both students of Anthropology at University of Otago (1970s - 1980s) - both of us did archaeological work on prehistoric umu. One evening Barry and I were being entertained into the small hours of the morning by an old friend Tim Minehan. Tim poured Barry and I out the door about 4.30am in an appalling condition! We both staggered and lurched downhill to my old student flat of 78 Albany Street (Dunedin) with an impossible craving of the munchies. Alas, my cupboards were bare - I told Barry to collapse on the sofa while I lurched off to the public gardens with my high-powered air pistol in hand, with the promise of bagging a couple of ducks. I scaled the barred spike-topped gates of the gardens and stalked the wily ducks - who very wisely kept shuffling ahead of me in the gloom. I returned empty-handed about an hour later (still very dark), and found half a mouldy 'pet-roll' in a disused cupboard (50% whale meat and



God knows what else) which I grilled under the gas cooker for Barry and I - we ate it with some old plum sauce I also found under the stairwell!"

Barry very much enjoyed teaching which he had done in many parts of the world at all different levels but once he had finished his PhD he unfortunately could not secure a job in New Zealand. He was a good teacher, as John Coster notes he remembers Barry "chiefly for his presentations on umu-ti at NZAA conferences, where he conveyed the science and archaeology of turning cabbage trees into sugar with rigour and clarity, while making it all seem like fun - a model many of us could follow. He was a lot of fun himself".

It was during his time as a student that I first met Barry, working during the Christmas holidays in Central Otago, November 1982. I arrived just as Barry was cleaning up the mess associated with the spillage of 20 litres of home brew stout. At first sight, as always, he looked to me like a bible salesman, neat and tidy and conservative looking, but very soon I realised he could not be more different. He made friends right across New Zealand, not just archaeologists but also a range of people from rural communities where he did his PhD research and with whom he remained in contact. He was always interested in people from whatever background or age. He influenced many people in different ways; I am still making home brew stout thirty years after the split bucket incident, including for many years with Barry in the 1990s in the archaeology labs at the Australian National University.

Barry had arrived in Canberra in 1988. Again he thought he had found paradise. Great climate, a vibrant university, marijuana decriminalised, what more could you want!! He immediately set about looking for a house to buy and do-up. This was one of his passions - he had done the same thing in Dunedin in North East Valley, bought an old somewhat run-down place and done it up (both the house and the garden). The house he bought in the Canberra suburb of Narrabunda was an old fibrolite government house surrounded by a barren lawn only. Those who visited the place after Barry had been installed for a few years could only marvel at how he turned it into his own Garden of Eden, including the obligatory plants hidden high up in the interior of the massive and prickly boundary hedge. One of his other passions of course was dabbling with older cars. His girlfriend in Dunedin, Maureen, had a 1970s Simca, never a great car even new, but it was one that Barry spent many hours on keeping it going. In Canberra it was Renault 12s, he had a whole series of them, finally settling on a 1972 and 1974. Those cars would have gone forever as long as Barry was around.

Graeme Ward recalls many similar memories over a long friendship with Barry:

"Early 1980: I was with Foss in Honolulu on the way back from three months on Kapingamarangi and Pohnpei; greeted by Barry and a VW Beetle

at the airport I still can't understand how the three of us plus all our gear fitted and didn't diminish Barry's smile; his smile continued with generous hospitality during our short stay.

1980s: Following the successful completion of his thesis at University of Otago (1986), Barry took up a research fellowship at the Australian National University and came to live in Canberra; we were mainly working in Papua New Guinea, but were involved in discussions about sourcing of Australian ochres, and the character of the deposits in the Spanish pot from Mota, Vanuatu (Bedford *et al.* 2009 in *Journal of the Polynesian Society*), and archaeometric matters in general; there was much social interaction, however, as Barry's sociability was apparently unlimited, and I remain impressed by the unfailing ability of the Renault to take him home.

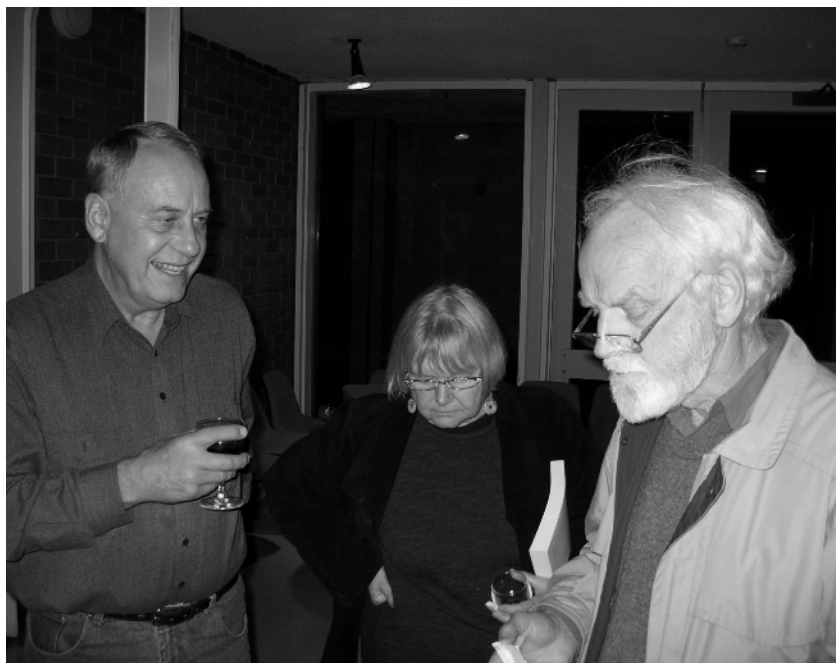
1990s and 2000s: My wife Sue had attended the celebration of Barry and Georgina's marriage (I was on fieldwork) and in 1992 we attested "solemnly and sincerely" to the Department of Immigration, Local Government and Ethnic Affairs to support Barry's application to reside in Australia, encouraged him to stretch his finances to retain the Narrabundah house; and benefited from his interest in various music each time he visited.

Following Barry's devastating stroke we were one of many on a rota assisting him to maintain his pursuit of his many interests, fitting the wheelchair into the car, finding music venues in unlikely places, assembling shelving for his extensive library of 'easy listening', encouraging his autobiographical writing. He was an exacting scientist, an innovative researcher with a wide range of expertise, who did not publish enough of his work; he was generous with friendship and in sharing his many interests, did not seek sympathy and was seldom without an engaging smile" (*Graeme K. Ward, Canberra 12/02/14*).

Barry had a six year contract at the Australian National University where he continued his research into residue analysis amongst other things. He set up the lab from scratch and did pioneering research into residues found in earthenware cooking pots. He was often frustrated however by his colleagues' lack of understanding in relation to the complexities of residue analysis. Many sent him sherds that had been excavated some 30 years before, stored in less than ideal conditions for any residue preservation, and yet were surprised when he could find no residues. His last period of full-time employment, from which he retired in 2008, was with the Therapeutic Goods Administration (TGA), an Australian government organisation that screened all applications for the introduction of new foods and drugs. Again his broad scientific and particularly chemistry background came to the fore. He wrote a defining document in 1999 on kava which prevented it being banned in Australia. Nobody who knew Barry would be surprised to know that he was the only one of the dozens of researchers at TGA who personally trialled every one of the drugs he was assigned to research.

Barry's massive stroke in 2009 was a cruel blow particularly for someone so gregarious and keen to get out and about; he had also always detested television so that didn't keep him entertained at the St Andrews retirement village. He adjusted however to life in his own particular Fankhauser-style... he began inviting fellow residents of St Andrews out for dinner and music, mostly ladies well into their 80s. For some of them it was their first date for a long time and probably for most of them it was their first visit to the National Press Club and listening to Blues bands.

Barry always liked a get together, whether with one or two people or large parties often indulging in fine home brew and other things cultivated from his garden and fine music also not far away. He knew how to have a good time and he tended to gravitate towards like-minded individuals who didn't mind bending the rules as evidenced from the stories already recounted. He will be sadly missed, but perhaps we can leave him with a final parting line. I will never forget after a full-on house warming party at my new student house in Ainslie, Canberra in the late 1990s, at about 2am Barry said to me "Thank goodness I brought the car because I certainly can't walk".



*Figure 3: Barry, Judith Cameron and Wal Ambrose, book launch, Canberra, 2006 (photo S. Bedford).*