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Chapter Author(s): Matthew Prebble, Janelle Stevenson and Simon Haberle

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A D-section and a tin whistle: A tribute to Prof. Geoff Hope

Matthew Prebble

Department of Archaeology and Natural History, Research School of Pacific and Asian Studies, Australian National University, Canberra, Australia matthew.prebble@anu.edu.au

Janelle Stevenson

Department of Archaeology and Natural History, Research School of Pacific and Asian Studies, Australian National University, Canberra, Australia

Simon Haberle

Department of Archaeology and Natural History, Research School of Pacific and Asian Studies, Australian National University, Canberra, Australia

After more than 40 years of academic research and teaching in Quaternary Science, Prof. Geoff Hope retired in June 2009. As an undergraduate student at the University of Melbourne in the 1960s, Geoff studied the natural sciences under such greats as Ray Specht. He later became one of a pioneering band of researchers to pursue palynology in Australia, starting with a Master's project on the peatlands of Wilsons Promontory, investigating the history of *Nothofagus* forest and aboriginal plant use. For his PhD research, he made the big leap into New Guinea, exploring glaciation as a driver of vegetation and climate change. Obtaining a Queen Elizabeth Fellowship, Geoff completed his PhD at the Department of Biogeography and Geomorphology at the ANU, under Donald Walker and Joe Jennings. To undertake his field work in 1972, Geoff lived for the whole year in a small ANU field hut (that still stands to this day) at the base of Mount Wilhelm, next to Lower Pindaunde Lake. From there, he made regular trips down to Kundiawa, the capital of Simbu Province, to obtain supplies and to submit samples of 'black sludge' for radiocarbon dating, as Richard Gillespie recalls:

'The year 1972 is probably best remembered by some Australians for the first Sunbury music festival, for others the Aboriginal Tent Embassy established on the lawns of Parliament House, the election of Gough Whitlam, or that catalogue sales for a Tutankhamun exhibition in London realised more than gate takings from the five-test Ashes series in England. Very few would have expected that intrepid Australians were

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interrogating sediments in the high mountains of western New Guinea, for reasons no doubt best known to themselves. My knowledge of this event came from several bags of non-descript dirt, mostly black, some with woody bits, which landed on my desk at the Sydney University Radiocarbon Laboratory.

Not long after construction of that lab began in 1970, by MSc student Ian Fraser and PhD student Gillespie, our supervisor Assoc. Prof. Richard Temple attached a small typed notice to the door, respectfully dedicating the venture to former student Glynn Parfitt, a fundamentalist Plymouth Brethren devotee who had unsuccessfully tried to build a gas counting radiocarbon system to prove that the creation date calculated by Bishop Ussher was correct. We eventually got everything working and the first SUA-dates were published in late 1972, containing mainly modern standard measurements and cross-check samples provided as blind tests by Henry Polach from the ANU Radiocarbon Research Laboratory.

Among the many other samples arriving at the lab in 1972, but not making the first date list, were the bags of dirt from Jim Peterson and Geoffrey Hope. I was never sure why those samples came to Sydney, I had never heard of Hope or Peterson, and later suspected that Henry Polach (busy on the biggest game in town, the Mungo dates in Bowler et al. 1972) had farmed out the black sludge from New Guinea to me for a shot at making an impression on clients willing to pay good money for dates. I think we were charging \$60 per sample.

Results were sent back (by Telex!) less than two weeks after they arrived at the lab, while the Peterson and Hope team was still in the field. Not that such service was on the same scale available to Americans: samples and radiocarbon dates were shuttled by car, on a weekly turn-around, between Rainer Berger's UCLA lab and massive excavations at Tule Springs, Nevada, in 1969. And scintillation counting pioneers Jerry Stipp and Murry Tamers built a mobile radiocarbon lab-on-a-truck, providing an overnight onsite service; later they built a radiocarbon date factory called Beta Analytic.

Some of the samples submitted by Hope and Peterson were among the first couple of dozen unknowns processed in the Sydney lab, although publication of these and later samples from the same region was delayed for four years (Gillespie and Temple 1976; Hope et al. 1976). There were more exciting samples in the same datelist, from archaeological sites at Malakunanja, Deaf Adder Gorge and Devil's Lair, but the tropical glacier and pollen-related samples from New Guinea were given the best available treatment in 1972. Thirty-seven years on, and I'm still dealing with sediments collected by Geoffrey Hope and others in New Caledonia (Stevenson et al. this volume), so I have to ask: when will this black sludge obsession cease, and what might the uncertainty on that date be?'

Geoff's primary research outcomes from his PhD resulted in some of his most widely acclaimed research. According to Paul Hesse (2006), his 1976 *Journal of Ecology* paper sits in the Top 10 best-ever Quaternary papers from Australasia. The paper traces tropical tree-line movement through dated records extending to the late Pleistocene. According to Paul, the substantial depression of temperatures (~8C°) 'has remained as an inspiration and frustration to palaeoclimatologists' attempts to understand climate change in the tropics ever since'.

After his PhD, Geoff was appointed a Lecturing Fellow in the Department of Geography, ANU, in 1978. Since that time, Geoff has been instrumental in engaging researchers from different fields in the wonders of New Guinea's natural and cultural history. He first introduced Tim Flannery to these marvels in 1982 on an expedition he organised to Kosipe Mission to explore the Pleistocene palaeoecology of the Ivane basin. In Tim's fascinating account of his adventures in New Guinea, *Throwim Way Leg* (1998), he describes Geoff as the most inspiring



teacher of natural history he has known. As Flannery's book illustrated, being introduced to New Guinea by Geoff not only involved delving knee deep into swamps in the rugged mountains or mosquito-plagued lowlands, but also led to real adventure and irresistible opportunities for students to experience one of the most remote and rugged regions on earth. Also joining Geoff in New Guinea in the 1980s was plant ecologist Jenny Read, researching *Nothofagus* ecology (e.g. Read and Hope 1989). Jenny recalls one incident as a not uncommon occurrence in the highlands:



Figure 1. Geoff coring on Hunter Island, northwest Tasmania in 1976. Photograph Sandra Bowdler

'Geoff was collecting sediment cores from Nurenk Swamp, and some of us who had been conducting vegetation surveys in the area headed back to our vehicle early. When we arrived we were greeted by a crowd who informed us that they would kill us all



Figure 2. Geoff trudging through his beloved bogs on the Kemabu Plateau, a high-altitude area covered with thick glacial deposits to the north of Mount Jaya, West Papua, 1993



Figure 3. Geoff on Mount Wilhelm in 2007 reminiscing and resting with members of the clan who worked with him during his PhD fieldwork on the mountain in the early 1970s. Photograph Simon Haberle



unless we gave them \$100. I went back into the swamp to get Geoff (for his pidgin skills) and when he arrived he spent a couple of hours negotiating them down to \$16! I didn't catch all of his arguments, but foreign aid, Australian development assistance, etc all played a part. I think we were all just sitting quietly (keeping our heads down). There are a few morals in this, depending on how you look at it. Somehow, though, I imagine that nearly all of us [who have worked with Geoff] have a similar story. Mostly when I think of Geoff I sadly think of a take-away stand [kai bar] in Mount Hagen that had a tank full of boiling fat and brisket and similar delights, and Geoff's excitement at such.'

Everyone will be pleased to know that Geoff has been a successful vegetarian for many years, mainly at the insistence of partner Bren, who is clearly aware of the perils of *kai* bars and Ox & Palm Bully Beef!

Geoff has often described himself as a 'plant historian', contrary to how some of his colleagues have seen him. The botanist Jim Croft, when working with Geoff on the botany and vegetation of highland New Guinea in the 1970s and '80s, found that:

'He was more interested in getting knee deep in high-altitude bogs and he had patiently explained that he wasn't really interested in and did not see plants in the field - he was after vegetation, a thing that botanists never saw.'

Geoff has continued to work in Papua New Guinea ever since, perhaps in part for his interest in the natural history and the impressive diversity of people and cultures in the region, but also because of his family heritage. His mother came from a sugar-cane growing family who lived in New Guinea during the early colonial days. To Jack Golson, Geoff represents part of a strong historical lineage of great multidisciplinary scientists who pioneered research in Papua New Guinea. His most recent work has been refocusing on the Owen Stanley Range, to his relief, publishing data which he obtained back in 1974 (Hope 2009). In 2007, Geoff led a group of international scientists on a two-week trip through the highlands of Papua New Guinea, visiting many of the old haunts from his PhD days. This included walking, perhaps a little slower this time, to the alpine grasslands of Mount Wilhelm in the Chumbu Province. As word went around the valley that he was there, it was with little surprise that the group soon met up with the people with whom Geoff had worked so closely in the 1970s (see Figure 3), many remembering the work that he did in opening up the region for researchers to return through the past 40 years. He returns once more to Mount Wilhelm this year, with Tim Barrows and Brad Pillans, in their attempt to further substantiate the timing of peak glacial conditions during the Last Glacial Maximum in Papua New Guinea.

He joined the Department of Biogeography and Geomorphology in the Research School of Pacific Studies, ANU, led by John Chappell, as Senior Fellow, in 1990 and was head of the Department of Archaeology and Natural History from 1998 to 2003. Five years as head of an archaeology department still hasn't earned him the title 'archaeologist'. Geoff often recalls working on Kangaroo Island in the 1970s with Ron Lampert while conducting geomorphological surveys and swamp coring. On one occasion, Geoff picked up what he thought was clearly a waisted blade. Ron explained that when in Geoff's hands 'this is not an artefact it's merely a stone, in the hands of an archaeologist it's an artefact!'.

Geoff's research interests are broad and they have taken him across Australia, to the rainforests of Southeast Asia and to the remote parts of the Pacific Islands. Patrick Nunn writes of Geoff's contribution to the palaeoecology of Fiji and endurance in the field:



Figure 4. Geoff teaching undergraduate students from the ANU in an area affected by the 2003 fires in the Namadgi National Park, ACT. Photograph Simon Haberle



Figure 5. Geoff with partner Bren and a harvest of garlic at their Bunga property on the south coast of NSW



'In the Vanua Balavu islands in 2000, the site on which the punishment squad [Patrick's students] focused their attention was a sinkhole named Cavaura. Geoff recognized at once the extraordinary potential of the sediment sequence likely to exist in the sediments in the centre of Cavaura and was determined to core them. With our eyes almost popping out in horror, we contemplated mutiny as we followed Geoff out to the very centre. With water up to our chests (for some of us), we dutifully pushed the hated corer further and further down into the scarcely-yielding sediments beneath. Down, down, down and finally, turn, then pull out. A process accompanied by a large subterranean belch, the black mud oozed out of the D-section corer. With astonishing equanimity for someone in his position, Geoff would have us hold the D-section horizontally while he cut the mud carefully into sections and bagged them.

One day in Cavaura was unusually hot. Three of us were with Geoff in the centre of the lake coring. The water and the mud were burning us, even to the point of losing feeling in our legs and midriffs. Mentioned this to Geoff and he laughed (as though he were not even uncomfortable!), saying that in Papua New Guinea you have all this plus a couple of eight-foot crocodiles!

Lunch at Cavaura, precariously seated in the hornet-infested rock shelters that lined the side of the sinkhole, was invariably enlivened by Geoff's piping. Just when we thought nothing else could possibly impact our sensibilities, out would come a penny whistle and Geoff would play a jig. Enclosed by limestone cliffs, framing the blue sky above us, an eerie quiet all around, Geoff's music would instantly enthuse us. Reminding us that there was another world beyond Cavaura into which, after a few more hours in that watery hell, we would joyfully re-enter, the music gave us new hope and the willpower that we needed to finish the job.'

Geoff continues to pull out his tin whistle at odd occasions. On one of these occasions when Geoff was heading out of Brisbane airport he left his whistle in a carry-on bag and was abruptly asked by the security officer 'what's this for?' Geoff replied 'This!' and proceeded to play a jig to the joy of all.

Geoff's practical attitude to life and work is captured by this anecdote from Sue O'Connor and fellow archaeologist Matthew Spriggs, on an expedition to East Timor with Geoff in 2000. United Nations personnel had warned them they would be unable to get to Tutuala village, which is on the eastern tip of the island, because Lake Ira Lalaro had flooded, cutting off the road and isolating the region for months. UN vehicles were reluctant to venture on to the flooded roads. There was no stopping Geoff, 'We're Australian,' he said. 'No wozzas, we can get through this easy.' He then opened out his tent, took out the flysheet and proceeded to wrap it around the front grille of the vehicle. They triumphantly made the crossing and the three were saluted by locals as they drove down Tutuala's only street.

One of the most admirable characteristics of Geoff is his inclusiveness, both of his family, students and colleagues. Geoff's family have joined him on many expeditions to remote and often precarious locations, as well as welcoming many of us into their home for one of those not to be missed Greenhood Place gatherings. His 'can do' approach to life has meant that research gets done and everyone gets involved. In an interview by The Australian (17.2.2010), Geoff suggested that he was not retiring but entering a new phase as 'a gentleman scientist'. Geoff was recently awarded emeritus status at the ANU and all of us wish him well, and expect him to continue to probe the depths of Australasia's landscape history. To answer Richard's query, the quest for more 'black sludge' will never end!

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