Father of geology in Papua New Guinea dies at 89

by Anonymous 3 May 2024



Hugh Lucius Davies, AO, OL, the father of geology in Papua New Guinea, has passed away at the age of 89. Renowned for his significant contributions to the geological interpretation and mapping of the region, Hugh's research and mentorship of numerous Papua New Guinean students has left a lasting impact on the nation, particularly through his influence on the minerals and energy sectors.

Hugh's contribution to the geology of PNG was immense. He first arrived in PNG in 1956 at the age of 23 as a geologist with the Australian Bureau of Mineral Resources, working on regional geological mapping including tectonic and volcanic studies. Hugh often mentioned one of the highlights of that first trip was meeting a young Michael Somare, the future father of the nation. They remained friends until Sir Michael's death in 2021. From 1957 to 1961, he was attached to the PNG Geological Survey mapping the geology of the country. This was arduous work done by foot in these early days. With the assistance of the local people, paths were cut through the mountainous and lushly vegetated interior of the country, and collected rock samples were carried out. It was during these months-long trips that Hugh, conversing and bonding with his support crew, learned to speak fluent Motu.

In 1963, Hugh completed a Masters of Science in Geology at the University of Western Australia. In 1964 he pursued a PhD at Stanford University in California, studying the Papuan Ultramafic Belt ophiolite, a slice of the ocean floor that has been thrust over the southeastern mountain ranges and representing a puzzle piece to the then newly formed theory of plate tectonics. It was here that he met his beloved wife, Connie Lou. They married in 1964, a marriage that lasted nearly 60 years. Hugh would later remark that the \$10 cost of the marriage license was the best money he ever spent. They returned to PNG from 1965 to 1968, with Hugh undertaking further mapping work in southeastern PNG. Where possible, Connie Lou would accompany him at field camps.

Returning to Stanford in 1968, plans to present a paper *en route* at the International Geological Congress in Prague were aborted due to the invasion of Czechoslovakia by the USSR. Fortunately, all the meeting attendees, including Hugh, Connie and

their young family were able to leave, shaken but unharmed. In 1971 and 1972, Hugh led a six-month geological mapping project in the western central ranges of PNG. The field party was based in Telefomin where the Davies clan, which was now five and soon to be six, resided. Areas mapped included the Ok Tedi, Porgera, and Frieda River mineral prospects and the high country of the Star Mountains.

Hugh held a number of leadership roles in government, industry and the community, including Chief Government Geologist of the newly formed PNG Geological Survey from 1973 to 1981, Executive Manager of the (also) newly formed Geological Survey Division at the Mineral Resources Authority from 2007 to 2009, and Chairman of the National Disaster Awareness and Preparedness Committee from 1999 to 2007. In 2001, he founded and became inaugural director of Centre for Disaster Reduction at the University of PNG (UPNG). Living in PNG, he organized the logistics for countless international colleagues visiting the country to study its scientific wonders.

Between 1973 and 1977, Hugh was heavily involved in negotiations to develop the Ok Tedi prospect, first as Executive Secretary of the Ok Tedi Steering Committee and then as Managing Director of the government-owned Ok Tedi Development Company (OTDC). After the initial lease-holder, Kennecott Copper Cooperation, withdrew from negotiations in 1975, the OTDC carried exploration forward proving it to be a larger, higher-grade copper resource, leading BHP Billiton to enter an agreement to develop the mine in 1977. In 1978, Hugh visited the Massachusetts Institute of Technology as the Crosby Visiting Professor, lecturing and spending hours on the electron probe analysing Papuan ophiolite rocks.

During 1978 to 1981, with the family heavily involved in swimming, Hugh was the President of the PNG Amateur Swimming Union, a precursor to the current PNG Swimming Incorporated. The family returned to Australia in 1981 and Hugh was based at the Bureau of Mineral Resources in Canberra for the next eight years, focusing on marine geology which led to research cruises to the Solomon Sea (1983-84) and the Southern Ocean (1985-86).

When a large eruption threatened Rabaul in 1984, Hugh returned to act as volcanology liaison officer, providing scientific advice and information to the public. This proved to be a false alarm and a dress rehearsal for 10 years later when in 1994 he stepped into the same role during the Rabaul eruption which displaced 50,000 people and destroyed Rabaul town.

Hugh arrived at UPNG in 1989, where he was the Professor of Geology until 2018, restructuring the geology degree program and creating an internationally competitive geology department. His students were able to take up professional

positions at home and compete for jobs in international markets. He encouraged the education of many female Papua New Guinean geologists, who subsequently flourished in jobs both at home and overseas, in an era when the profession was male-dominated. He improved the lives of hundreds of students, supporting them as a mentor, teaching them, and assisting them in finding jobs and opportunities for further study and research. He placed PNG geology students in PhD and Masters programs all over the world.

Hugh's commitment to practical geology was underscored by his response to the 1998 Aitape tsunami. He provided critical on-ground support and conducted indepth research on the disaster and its historical precedents. His efforts led to the establishment of the Center for Disaster Reduction at UPNG, which continues to offer crucial information to at-risk populations.

Hugh's contributions to PNG's geology were outstanding. He wrote over 100 academic papers on the geology of PNG, and a number of books including *Earth Tok* in 1994, an introductory geology textbook about processes and hazards from a PNG perspective (updated in 2001 and 2014), and in 2018, *Aitape Story: The Great New Guinea Tsunami of 1998*. He was author or co-author of half (11 of 22) of the published geological maps of PNG at 1:250,000 scale, the basis for any geological analysis in PNG, including mining and petroleum exploration.

Hugh was a humble and dedicated man and a quiet achiever. Later in his career, Hugh received recognition from Australia, the country of his birth, from Papua New Guinea, the country he considered his home, and from the United States. In 2005 he received the Order of the Logohu (OL) from the PNG Government for *services to geological education and disaster relief*. In 2006, he received the Michael T. Halbouty Human Needs Award from the American Association of Petroleum Geologists, also *for services to geological education and disaster relief*. In 2018, Hugh was made an Officer of the Order of Australia (AO) for *distinguished services to Australia-Papua New Guinea relations in the area of geological sciences and to education as an academic, author and researcher*.

Hugh stopped research and teaching at the UPNG in 2018 and returned to Canberra, Australia with Connie Lou. She had taught at Port Moresby International School from 1990 until 2018, closely matching the years of Hugh's tenure at UPNG. In Port Moresby, it is not uncommon to meet people who were taught by both Hugh and Connie.

Throughout their many adventures, Connie Lou was a constant companion, traveling the world, raising four children, working in education, and in recent years spending sunny, quiet days together in Canberra. The unwavering support from

Connie was no doubt one of the reasons that Hugh was able to achieve so much.

Hugh's "retirement" consisted of working every day on his latest research on PNG geology, helping his former students with research and study opportunities, and connecting with colleagues from PNG and other countries. This continued up until two days before his death on Friday 26 April.

Hugh loved Papua New Guinea's mountains, coastal plains, islands, and people. It seemed, at times, that he had an encyclopedic memory of every mountain and valley in the country. He was a great example of "giving yourself to help others", an often-used mantra of his. He was both an exceptional Australian and adopted Papua New Guinean. He showed that there is no secret to making a significant contribution. It comes about by single-mindedly applying continuous effort over a long period of time.

He is survived by his wife Connie, his children Martin, Kendi, Rondi and Jocey, his grandchildren Lara, Kaia, Marin and Aries, his sister Jo, and his beloved border collie, Brave Dog.

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Author/s:

Anonymous

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