

Obituary:

Robert Wray 1966 – 2017

Ian Houshold

assisted by members of Highland Caving Group

Robert was a most enthusiastic geomorphologist with a wide range of interests in the evolution of natural landscapes. As with many Australian researchers, he devoted much thought to reconciling anomalies between measured process rates and historical evidence for ancient land surfaces. In this context, he chose to focus on the processes and evolution of sandstone and quartzite landforms where, as he put it:

“This paradox of dissolutional landforms on some of the world’s most insoluble rocks mimicking those on some of the most soluble, both in appearance and scale, has become increasingly difficult to ignore in recent years, yet little attention has been given to the detailed study of the landforms themselves or the dissolutional processes involved.”

He was intrigued by the beauty and variety of sandstone landforms and the lithological, chemical, climatic and hydrological controls which encompass some of Australia’s most spectacular and

extensive terrains; including distinctive beehive forms of the Bungle Bungles, escarpments, caves and waterfalls of Kakadu and Arnhem Land, the cliffed and deeply incised canyons of the Blue Mountains and the iconic rounded forms of Uluru and Kata Tjuta.

Robert contributed significantly to the discussion of solution vs mechanical erosion of sandstones and quartzites, and the continuum of karst–karst-like–pseudokarst landforms. However, he did not allow the terminology to distract him from his chief aim of understanding the role of processes and long term environmental change in sandstone landscape evolution, regardless of how we label them.

He was a colleague and co-author of a trio of lecturing staff at the University of Wollongong with international interests in sandstone landforms. Following his PhD on the Sydney Sandstones, his horizons expanded to work in the Carnarvon Ranges of Queensland, Hunan in China, and the Venezuelan Tepuis, providing material for international reviews of solutional and mechanical weathering and erosion. These include his contributions to *Earth Science Reviews* and the 2013 *Treatise on Geomorphology*, and the beautifully presented book *Sandstone Landforms* co-authored



*Robert Wray at Wan Fo Shan (Ten Thousand Buddhas) Mountain, Hunan, China.
[photographer unknown]*

with his mentors, Robert and Anne Young. His work on the phreatic drainage networks of the Precipice Sandstone (Qld) will inspire novel approaches to the assessment and management of hydrogeology in sandstone terrains, and his research into silica and iron speleothems significantly adds to our knowledge of depositional features.

Robert was a strong advocate for geoconservation and appropriate management of geodiversity. Recognising the abiotic significance of iconic sandstone landforms, he contributed to many regional geoheritage assessments of Australian sandstone landscapes, with specific focus on the

‘pagodas’ of the western Blue Mountains, karst, karst-like and pseudokarst landforms of tropical northern Australia and internationally, on the peak forests of Hunan, China as part of the development of the UNESCO Geopark network.

Dr Wray was a very active caver with Highland Caving Group in NSW from 1988 to 1997. As he was always looking down holes to explore he was given the nickname ‘Rabbit’. He was HCG President for 4 years and, as Secretary, helped resurrect the club’s newsletter. He took a very active role in producing the 2-volume book *Under Bungonia* in the mid-1990s, now the guidebook to this, the most visited wild caving location in Australia.