**Brent Alloway**

University of Auckland, NZ/University of Wollongong, Australia

**No small feet: Tracing the footsteps of Southeast Asia's earliest hominins using tephrochronology**

In 2003, a spectacular discovery of a new hominin species (*Homo floresiensis*; popularly dubbed ‘Hobbits’) was made on the eastern Indonesian island of Flores by a team of Australian and Indonesian archaeologists. While initial pathological explanations have been dismissed, debate still rages over the origin and placement of *H. floresiensis* in the human family tree. Thus, there are many lingering questions about the timing and impact of successive hominin colonizations in the region. Who were the first hominins to reach Flores and how and why did *H. floresiensis* get so small? Ongoing research in Flores is currently concentrated in two main areas (i) Liang Bua Cave – the site of the original 2003 Hobbit discovery, and (ii) the Soa Basin in central Flores, where stone artefacts and vertebrate faunal changes have been identified in volcaniclastic and fluvio-lacustrine deposits spanning between c. 1 million to 650,000 years ago.  
  
Flores, located immediately northward of the geologically active Sunda-Banda Arc, has 14 active volcanoes that have generated multiple and widespread silicic tephra horizons, which are now recognized as being spatially and temporally associated with fossil and artefact-bearing sequences. Tephrostratigraphy supported by major (electron microprobe) and trace element (LA-ICP-MS) geochemistry of glass shards as well as radiometric ages (i.e. Ar/Ar, ITPFT, (U-Th-Sm)/He) of interbedded volcaniclastic deposits, is designed to 1) permit correlation of equivalent-aged sequences, allowing for the identification of prospective hominin-bearing sites; 2) clarify the environment inhabited by hominins; and 3) determine the role of eruptive activity on the pattern of faunal extinctions and extirpations on Flores. Ultimately, an important objective is to use inter-regional silicic tephra markers to link equivalent-aged hominin (and tephra) bearing records from Flores with those from central Java that contain *Homo erectus* and thus resolve debates about the chronological relationships between the “Hobbit”, its putative ancestor and *H. erectus*.

**Biographical Note**

Brent Alloway is a Quaternary earth scientist with diverse university, industry and crown research institute (CRI) experience (jack-of-all-trades-and-a-master-of-nothing). Aside from academic positions held at Auckland and Victoria Universities where he taught Quaternary earth science and volcanology, he was part of a small team who discovered, characterised and defined the Fruta Del Norte (FDN) epithermal gold deposit – the largest gold discovery in South America in the last 20 years. Prior to this, Brent was a Chief Volcanologist and science manager at GNS Science. In 2009, Brent received the McKay Hammer Award from the NZ Geological Society in recognition for meritorious research contribution to NZ geology. Brent is particularly interested in the application of tephrochronology as a tool for unravelling landscape histories and paleoenvironmental change as well as for assessing volcanic hazards. Brent is currently conducting tephra-related research in New Zealand, southern Chile/Argentina and hominin-bearing sequences of central Flores, Indonesia. Brent is presently a professorial adjunct at The University of Auckland, NZ, and The University of Wollongong, Australia.