

# ARCHE Seminar Series 2023

Associate Professor Kira Westaway presents

## “The role of dating in defining extinctions; the long and short of it”

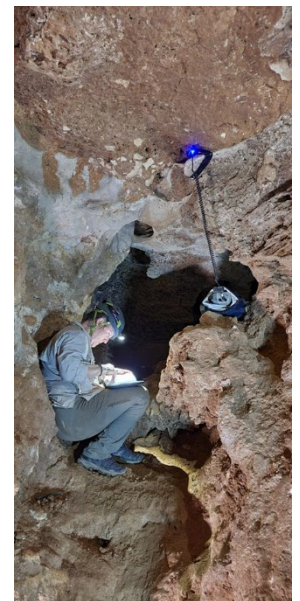
*Australian Research Centre for Human Evolution Seminar Series.*

**Abstract:** With the prospect of a sixth mass extinction event looming there has never been a more compelling time to define species extinction, especially for large bodied fauna and primates. Looking to past unresolved extinctions is a good starting point to try and establish what drives extinction and how can we define when and how it occurs? Dating, in all its different forms, plays a large role in this quest because defining the exact timing that a species disappears requires a robust timeline at a regional scale.



In this talk, I will review three attempts we have made to define the extinction of three well-known primates; *Homo floresiensis*, in Flores Indonesia, *Homo erectus* in Ngandong Java and *Gigantopithecus blacki* in southern China. I will outline our dating strategy for each area and assess the implications of these resulting chronologies. These examples suggest that whether primates are large or small, whether they have been around for a long time or a short time certain species traits can make them vulnerable to climatic and environmental changes. A robust dating context helps us to pin-point these potential changes and allow us to assess primate response from a behavioural perspective.

**Bio:** Dr Kira Westaway is a geochronologist recognised for her use of luminescence dating to establish when modern humans dispersed across Southeast Asia en route to Australia. She establishes robust timelines by dating early human evidence in cave sites across southern Asia and Southeast Asia. As part of an international research team she provided chronological control for the ‘Hobbit’ discovery at Liang Bua cave, western Flores, Indonesia. She led the team that established chronologies for modern human arrival at the site of Lida Ajer in Sumatra and Tam Pa Ling in northern Laos. More recently she established a timeline for the extinction of *Homo erectus* at Ngandong and the presence of Denisovans in northern Laos at Cobra Cave. She currently leads a program of research to understand why the king of all primates *Gigantopithecus blacki* went extinct in southern China, this research has large implications for megafaunal extinction in Asia and Australia.



**Date/Time** Wednesday 22nd November 2023 @ 1pm (double bill with A/Prof Zheng)

**Room** N76\_1.04 Seminar Room (Nathan Campus)