## **Description of Additional Supplementary Files**

File name: Supplementary Data 1

Description: Reference archaeological age dataset for Sahul constructed by building on the AustArch compilation<sup>1</sup>. We selected 30,000 BP (years before present) for radiocarbon ages and 30,000 years ago for other techniques as an arbitrary threshold to encompass ages representing the earliest phases of human occupation of the continent. Quality-rated ages from archaeological deposits  $\geq$  30 ka. See *Compiling reference archaeological dates* for definitions. Note that 'AGE' refers to years BP for radiocarbon ages and years for other techniques.

## References

Williams, A. N., Ulm, S., Smith, M. & Reid, J. AustArch: a database of <sup>14</sup>C and non<sup>14</sup>C ages from archaeological sites in Australia - composition, compilation and review. *Intern Archaeol* **36**, doi:10.11141/ia.36.6 (2014).