AustArch2: A database of $^{14}$C and luminescence ages from archaeological sites in the Top End

Alan N. Williams$^1$ and Mike A. Smith$^{1,2}$

AustArch2 is a Microsoft® Excel® database listing radiocarbon and luminescence ages from archaeological sites in the Top End. It was originally compiled to support analysis of time-series trends in Williams et al. (2010) and Williams (2011) and is now available online at <www.palaeoworks.anu.edu.au>. AustArch2 forms the second of a series of datasets being compiled as part of Williams’ PhD research to document all radiocarbon data across Australia. This dataset fills in the gap between AustArch1 (Williams et al. 2008) and Index of Dates from Archaeological Sites in Queensland (Ulm and Reid 2000), and allows complete coverage (within the limits of existing archaeological investigation) for the top two-thirds of Australia.

The database is intended as a resource for archaeologists working in northern Australia. It provides a ready checklist of dated sites as well as a comprehensive listing of radiocarbon and luminescence age determinations and, in conjunction with calibration programs such as OxCal or Calib, can be used to generate radiocarbon density plots for analysis of trends in occupation. Research in the Top End has grown over the past decade, making this central listing of chronometric data particularly relevant, and we expect that AustArch2 will become a useful tool for both consultant and academic archaeologists.

**Format**
AustArch2 is a Microsoft® Excel® file, listing ages (rows) by site, location and biogeographic region. The latter are based on the Interim Biogeographic Regionalisation of Australia (IBRA) 6.1 divisions (see Thackway and Cresswell 1995). Longitude and latitude are compiled from published sources, or estimated from locality maps. All $^{14}$C ages are given as conventional (uncalibrated) ages. The file includes a bibliography of published and unpublished sources for $^{14}$C and TL/OSL data.

**Geographic Scope**
AustArch2 covers the entire Top End, including the following IBRA regions: ARP, ARC, CA, CK, DL, GFU, GUC, GUP, NK, OVP and VB (http://en.wikipedia.org/wiki/Interim_Biogeographic_Regionalisation_for_Australia). The dataset is well represented along in the Darwin and Arnhem Land coastal regions, but does have extensive gaps in the southern parts of Northern Territory and several areas of the Kimberley.

**Coverage**
AustArch2 is currently the most comprehensive listing of radiocarbon ages for the Top End. We estimate that it includes >97 % of available $^{14}$C ages – totalling 780 ages from some 223 sites, derived from published and unpublished research over the past 40 years. In addition to radiocarbon data, there are 151 TL/OSL ages available.

**Updates and Errors**
We intend to maintain and periodically update the database and would appreciate hearing of new $^{14}$C, TL/OSL or U/Th results as they become available. We also ask users to notify us of any errors (via alan.williams@anu.edu.au).

**Acknowledgements**
AustArch2 incorporates material from published or private databases by Sean Ulm and Sally Brockwell. We thank colleagues who have supplied unpublished data.

**References**


