

Taung Heritage Site- Report to SAHRA (2016-2017)

Permit #: 9/2/036/0003

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In May of 2015 Permit #: 9/2/036/0003 was issued for continued work at the Type Site, Equus Cave and Black Earth Cave, as well as the surrounding tufa and flowstones for dating and isotope studies. In July of 2016 a small team comprised of scientists from the University of Johannesburg and Latrobe University (Australia) visited the site for a short period of time (the team arrived on the 16th, but were only granted access to the site on the 18th and left on the 20th). For two days the team managed to obtain data from ground penetrating radar at the type-site, which will be used to augment data collected from the previously drilled cores. In addition 3D scanning and photogrammetry were completed at the type-site as well. This will enable us to produce very precise 3D models of the type-site and surrounds.

In the lab we are continuing our examinations of hundreds of fossils that were left behind after the 1994 season ended. We are continuing our work on the fauna recovered from both Black Earth Cave and Equus Cave in 2014 as well as numerous archaeological remains recovered from Equus Cave. The cores are also being worked on, by the end of 2017 they should be mapped and samples taken for dating and palaeoclimatic studies. A number of articles are currently in preparation for future publications. These include, but are not limited to, the following:

Caruana, M., Baker, S.E., Herries, A.I.R., Menter, C., Kuhn, B.F. (In Prep) The Archaeology of Equus Cave.

Caruana, M., Baker, S.E., Herries, A.I.R., Menter, C., Kuhn, B.F. (In Prep) Challenges of Interpreting Collection Bias at Equus Cave.

Herries, A.I.R., Baker, S.E., Kuhn, B.F., Menter, G. (In Prep) Palaeomagnetic analysis of the Dart and Hrdlička Pinnacles at the Buxton-Norlim Limeworks: provenience and preliminary age implications for the Taung Child *Australopithecus africanus* type specimen.

Kuhn, B.F. (In Prep) Lost and Found: A sample of excavated fossil material abandoned at Taung, (Northwest Province, South Africa) between 1988 and 1993.

Additionally, to date there have been five articles published as a direct or indirect result of renewed research at the Taung World Heritage site in 2010. These are listed below.

Parker, J.F., Hopley, P.J., Kuhn, B.F. (2016) Fossil Carder Bees' nest from the hominin locality of Taung, South Africa. *PLoS ONE* 11(9): e0161198.
doi:10.1371/journal.pone.0161198

Kuhn, B.F., Herries, A.I.R., Caruana, M.V., Hopley, P., Pickering, R., Price, G., Baker, S.E., Menter, C. (2016) Renewed investigations at Taung; 90 years after *Australopithecus africanus*. *Palaeontologia Africana* 51: 10-26

Doran, T.L., Herries, A.I.R., Hopley, P., Hellstrom, J., Hodge, E. Kuhn, B.F. (2015) Assessing the palaeoenvironmental potential of Pliocene to Holocene tufa deposits along the Ghaap Plateau Escarpment (South Africa) using stable isotopes. *Quaternary Science Reviews* 84: 133-143

Kuhn, B.F., Carlson, K.J., Hopley, P., Zipfel, B., Berger, L.R. (2015) Identification of fossil eggshells from the Taung hominin locality, Taung, Northwest Province, South Africa. *Palaeontologia Electronica* 18.1.11A: 1-16
palaeo-electronica.org/content/2015/1026-identification-of-fossil-eggs

Hopley, P.J., Herries, A.I.R., Baker, S.E., Kuhn, B.F., Menter, C.G. (2013) Beyond the South African cave paradigm- *Australopithecus africanus* from Plio-Pleistocene paleosol deposits at Taung. *American Journal of Physical Anthropology* 151:316-324.

We hope to do a couple of geological visits to the site in 2017. Aside from this we have no plans for excavations or samples being taken in 2017, as funds are limited. The funds raised by Dr. Kuhn back in 2015 (75,000 ZAR) were taken back by the funding body (The Centre of Excellence in PalaeoSciences) at the end of 2015 (due to not spending it fast enough). All other funds raised have come from overseas collaborators. Aside from short visits in 2017, the remainder of the year has been set aside for fund raising in the hopes of continuing excavations in 2018 and beyond.