microfossil data also help to refine the paleoenvironmental interpretation of the sequence.

Early Acheulean technology in the Rietputs Formation, South Africa, dated with cosmogenic nuclides.

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ABSTRACT: An absolute dating technique based on the build-up and decay of 26Al and 10Be in the mineral quartz provides crucial evidence regarding early Acheulean hominid distribution in South Africa. Cosmogenic nuclide burial dating of an ancient alluvial deposit of the Vaal River (Rietputs Formation) in the western interior of South Africa shows that coarse gravel and sand aggradation there occurred ca 1.57_ 0.22 Ma, with individual ages of samples ranging from 1.89 0.19 to 1.34 0.22 Ma. This was followed by aggradation of laminated and cross-bedded fine alluvium at ca 1.26 _ 0.10 Ma. The Rietputs Formation provides an ideal situation for the use of the cosmogenic nuclide burial dating method, as samples could be obtained from deep mining pits at depths ranging from 7 to 16 meters. Individual dates provide only a minimum age for the stone tool technology preserved within the deposits. Each assemblage represents a time averaged collection. Bifacial tools distributed throughout the coarse gravel and sand unit can be assigned to an early phase of the Acheulean. This is the first absolute radiometric dated evidence for early Acheulean artefacts in South Africa that have been found outside of the early hominid sites of the Gauteng Province. These absolute dates also indicate that handaxe-using hominids inhabited southern Africa as early as their counterparts in East Africa. The simultaneous appearance of the Acheulean in different parts of the continent implies relatively rapid technology development and the widespread use of large cutting tools in the African continent by ca 1.6 Ma.

Early Holocene extensional tectonics in the southeastern Cape Fold Belt, South Africa. Short Paper in proceedings of the 11th South African Geophysical Association (SAGA) Biennial Technical Meeting and Exhibition, and Inkaba yeAfrika Phase II workshop. Goedhart, M.L.¹ and P.W.K. Booth²

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Desert flash flood series - Slackwater deposits and floodouts in Namibia: their significance for palaeoclimatic reconstructions.

Klaus Heine, Jörg Völkel (2009). *Zbl. Geol. Paläont. Teil I* **2007**, 287-308

Soil clay minerals in Namibia and their significance for the terrestrial and marine past global change research.

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ABSTRACT: We delineated seven soil clay mineral provinces in Namibia. Many individual clay mineral assemblages occur in fluvial, pan, cave and other environments. Previous researchers have used clay mineral compositions as evidence for palaeoenvironmental reconstructions, often without analyzing the formation, the transport and the deposition of these clay minerals. In Namibia, rates of erosion and denudation by water and wind have been very small since early Quaternary times. During the Quaternary, the clay mineral assemblages of the seven provinces and of individual clay mineral deposits did not change significantly. Palaeoenvironmental reconstructions have to consider these small rates of erosion, especially if clay minerals were transported by water and/or wind from their source area to distant regions (e.g., the ocean). Changes in marine clay mineral compositions may not reflect climate change, but can be caused by changes in the ratio of fluvial to aeolian transport. If the changes in the transport mode are known, these changes be interpreted can palaeoenvironmentally. Future researchers have to decipher quantity and quality of the fluvial and aeolian dust transport (clay minerals, pollen, etc.) over southwestern Africa and the Benguela Current area.

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Opportunistic subsistence strategies among Late Holocene coastal hunter-gatherers, Elands Bay, South Africa