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# Recalibration of radiocarbon dates using *Helix melanostoma* shell at A'ïn Misteheyia, eastern Algeria

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## Abstract

The 1973-6 excavations at A'ïn Misteheyia, a Capsian site in eastern Algeria, revealed an archaeological sequence dated between approximately 9500 and 6000 calBP showing evidence for technological and subsistence change coeval with what we interpret to have been the 8200 bp cold event. Using a new shell reservoir offset of  $476 \pm 48$  14Cyr for the terrestrial shell, *Helix melanostoma*, we show that the sequence at A'ïn Misteheyia, based on pre-AMS dates using *H. melanostoma* shell, is coeval and comparable to the very well documented one from the nearby site of Kef Zoura D based on AMS dates for samples of both charcoal and bone. The revised dating shows a clear break in the A'ïn Misteheyia chronological sequence that corresponds to a transition in the archaeological record from *Capsien typique* to *Capsien supérieur*, equivalent to the one documented for Kef Zoura D. The revised chronology shows that this change, reflected in both techno-typological and subsistence criteria, correlates closely with the 8200 bp cold event.

**Keywords:** Capsian, radiocarbon, 8200 cal bp cold event

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