



ABSTRACT SUBMISSION

Investigating the Neolithic rubble layers in Jordan, using luminescence dating

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Abstract

A chronological study was conducted on the Neolithic depositional layers widely known as 'Rubble layers' at three Neolithic sites in Jordan; 'Ain Ghazal, Ba'ja and Basta. The aim of this study was to provide new knowledge about the layers, and their deposition, using luminescence dating. Luminescence ages from quartz and feldspar suggest that the rubble layers were deposited in two distinct episodes, the first around 8.2–8.5 ka ago during the Yarmoukian period, and the second during Chalcolithic period around 6.6–7.4 ka ago. The earlier episode is contemporaneous with records of episodic torrential rainfall during an arid period between 8.6 and 8.0 ka ago, supporting the hypothesis of deposition by natural causes such as flash floods.

Keywords

Luminescence dating, Rubble layers, Flash floods, Climate change

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